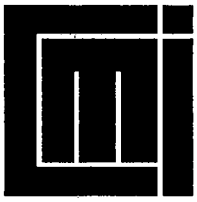
Population and Development Planning

A Demographic Study of the Hambantota Integrated Rural Development Programme in Sri Lanka

Armindo Miranda and Soma de Silva

R 1992: 1



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Summary:

The present study, undertaken as part of the background research for an evaluation of the Hambantota Integrated Rural Development Programme (HIRDEP), analyses the demographic characteristics and trends of Hambantota district (leading up to a set of population projections by age and sex 1981-2011), assesses how demographic variables were taken into account in the HIRDEP planning process and discusses the impact of HIRDEP on the demography of the district. The study highlights inter alia the implications of the ongoing demographic trends in terms of employment for young adults and welfare for the elderly, whose numbers are set to grow very rapidly in the coming 20 years.

Sammendrag:

Denne studien, som er en del av bakgrunnsdokumentasjonen for en evaluering av HIRDEP, beskriver de demografiske forholdene i Hambantota distriktet (inkludert befolkningsprognoser frem til 2011), vurderer hvordan HIRDEPs planleggingsprosess tok hensyn til demografiske variabler og drøfter HIRDEPs innvirkning på befolkningsdynamikken i distriktet. Studien belyser bl.a. implikasjonene av de demografiske tendensene, for sysselsetting av unge mennesker og for sosial trygging av eldre mennesker, hvis antall vil øke meget raskt i løpet av de kommende år.

Indexing terms:

Demography
Population projections
Development planning

Stikkord:

Demografi
Befolkningsprognoser
Utviklingsplanlegging

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List of acronyms and abbreviations

ADE	Assistant Director of Education
AGA	Assistant Government Agent
CO	Colonization Officer
DMO	District Medical Officer
GA	Government Agent
GN	Grama Niladhari
HIRDEP	Hambantota Integrated Rural Development Programme (sometimes spelled HIRDP)
MOH	Medical Officer, Health
MOMCH	Medical Officer, Maternal and Child Health
n.a.	not available (data)
NORAD	Norwegian Agency for Development Co-operation
PHI	Public Health Inspector
PHM	Public Health Midwife
PIO	Plan Implementation Officer

Administrative nomenclature

Public administration at the district level in Sri Lanka is headed by a *Government Agent* (GA). The Government Agent office for Hambantota district is located in Hambantota town, where many (but not all) district level representatives of a number of departments have their offices. One of the notable exceptions is education, which has its district head-office in Tangalle.

Subordinate to the Government Agent are 11 *Assistant Government Agents*, with offices located in the following towns: Ambalantota, Angunakolapelessa, Beliatta, Hambantota, Katuwana, Lunugamvehera, Okewela, Suriyawewa, Tangalle, Tissamaharama and Weeraketiya.

Each AGA Division is divided into a number of very small *Grama Sevaka Divisions*, headed by a *Grama Niladhari*, who is the government official at the lowest geographical level.

The district's preventive health services are organized in 6 *Medical Officer (Health) divisions*: Beliatta, Hambantota, Katwana, Tangalle Tissamaharama and Walasmulla.

The district's education services are organized in 3 *Assistant Director of Education (ADE) areas* offices: Hambantota, Tangalle and Walasmulla. Each ADE office covers a number of *clusters*; for instance, Hambantota AGE comprises 7 clusters: Ambalantota, Debarawewa, Hambantota, Lunugamvehera, Magana, Suriyawewa and Tissamaharama.

From the electoral point of view, Hambantota district is divided into 4 constituencies called *Electorates*: Beliatta (corresponding to Beliatta and Okewella AGAs), Mulkrigale (Katuwana and Weeraketiya AGAs), Tangalle (Ambalantota, Angunakolapelessa and Tangalle AGAs) and Tissamaharama (Hambantota, Lunugamvehera, Suriyawewa and Tissamaharama AGAs). Each electorate is subdivided in a number of *polling stations*; at present there are 237 polling stations in the whole district.

1. Introduction

In 1991 the authors of the present study were commissioned to review the demographic aspects of the Hambantota Integrated Rural Development Programme (HIRDEP), as part of an overall evaluation of HIRDEP co-ordinated by the Chr. Michelsen Institute on behalf of the Evaluation Unit of the Norwegian Ministry of Foreign Affairs. The present study is a revised version of the report produced in that context, stripped of the bureaucratic accoutrements required by the original purpose of the exercise. The authors' assumption is that some of the issues raised in the report about the integration of demographic concerns in regional development planning, or the report's attempt to use census data to explore regional socio-economic development themes could be of interest to a wider audience than those concerned by the evaluation report.

For those not familiar with regional development planning issues in Sri Lanka, a word about HIRDEP may be in order. HIRDEP is the Hambantota district version of the various regional integrated development planning (IRDP) exercises that were instituted in the late 1970's at the district level in Sri Lanka, with support from the World Bank, Norway, the Netherlands and Sweden. The main objective of such programmes is to enhance living standards in rural areas by allocating resources to low cost, short gestation, labour intensive productive investments, planned and implemented at the local level. By focusing development efforts on local needs and local initiatives, IRDPs were "to release the full potential of district resources through the removal of critical bottlenecks and constraints, particularly in plan implementation". In the case of HIRDEP specifically, the agreement signed in 1979 between Norway and Sri Lanka stipulated that "The Programme aims at achieving an increase in income, employment and production as well as improvement of social conditions and living standards of the men, women and children of the Hambantota District, with special emphasis on the poorest groups".

These exercises are far from being uniform in planning methodology or even in institutional build-up, a feature that some see as reflecting the preferences of the donor agency sponsoring each particular IRDP. Although there has been some debate as to where the differences lie and how important they are, Smith (1986:2) has argued convincingly for a distinction

between the 5-year plan, "blue print" approach favoured by the World Bank sponsored IRDPs and the rolling plans favoured by the bilateral donor agencies. Among these, Norway, in the case of HIRDEP favoured a "method of recurrent planning whereby information from ongoing activities is continuously fed into a revolving planning procedure" which in practice came to mean a rolling plan consisting of "an immediate action programme for the following year, an indication of commitments and proposals for the next two years and objectives, guidelines and policies for the longer term" (Smith, 1986:10). The broad objectives of IRDPs necessitated a multi-sectoral approach, and so HIRDEP encompasses activities mainly (but not exclusively) in water supply and irrigation, education, fisheries, agriculture, industry, settlement/community development, roads, and health. From inception in 1979 to 1990, Norwegian expenditure on HIRDEP totalled some NOK 150 million (USD 25 million).

Reviewing the demographic aspects of HIRDEP to us meant looking into three different kinds of issues:

First, to establish the demographic facts, what we call the demographic environment of HIRDEP: the population trends that have prevailed in Hambantota district from the inception of HIRDEP to the present and the medium term prospects, trying to quantify with the help of detailed population projections what will be the increased demand for social services and economic opportunities resulting from demographic change.

Secondly, to assess the impact of HIRDEP on the demographic situation of the district. We call this the evaluation of the development process in relation to demographic variables.

Thirdly, to examine how demographic factors were taken into consideration in HIRDEP's planning activities. We call this the evaluation of the planning process from the point of view of its sensitivity to demographic considerations.

The organization of the present study reflects this three-pronged approach: Chapter 2 maps out the demographic context of HIRDEP during the past 10 years and describes the most likely trends during the next two decades towards year 2011. Chapter 3 addresses the issues of integration of population variables in the HIRDEP planning process while Chapter 4 addresses the issues of the impact of HIRDEP on demographic trends in Hambantota. Building upon this material, Chapter 5 finally presents some recommendations for further strengthening HIRDEP's capacity to deal with socio-demographic parameters and issues.

***

The review process from which this study results drew on the patience, the generosity and the dedication of a large number of people who graciously put up with the inconvenience of impromptu visits, lengthy interviews, demands for vast amounts of unusual data, clarifications and all sorts of logistical assistance in the field, etc. As we issue this revised version of our report, we realize once again how fortunate we were indeed to have benefitted from the generous and kind co-operation of so many individuals both in Colombo and throughout Hambantota district. We would like to express once again our sincere gratitude to them all.

2. The demographic context of HIRDEP: past, present and prospects

2.1 The baseline situation

2.1.1 Data issues

Most of what we know about the demography of Hambantota district comes from the population censuses — the latest of which was taken in 1981. This was shortly after the official inception of HIRDEP in 1979, and can thus be considered to offer a picture of the baseline situation. As far as trends during the 1980's are concerned, the only statistical evidence available at the district level is the data on births and deaths compiled by the Registrar General's Office. For some particular purposes it might be possible to use more indirect evidence such as the statistics produced by the Commissioner of Elections on the number of registered voters, but that type of data is fraught with methodological difficulties. Given these constraints we have used the 1971 and 1981 censuses to establish not only the baseline situation but also the trends that had prevailed during the 1970's — so as to have some guidance about the possible developments throughout the 1980's. This situation is far from satisfactory and it serves as an illustration of the difficulties that the lack of more up-to-date statistical evidence is causing to the planning process. Until recently there had been hope that the new census, which was due to be taken in 1991, would solve the problem at least for a while. However, due to the disturbances prevailing in some parts of the country the census has been deferred; hence, it will be a while before a solution will be found.

2.1.2 Population size, growth and distribution

Hambantota district had in 1981 some 424,000 inhabitants and thus represented, in terms of population, a medium sized district in the context of Sri Lanka, the 15th among the island's 24 districts ranked by number of inhabitants. It comprised less than 3 per cent of the national population. In 1971, Hambantota had only about 340,000 inhabitants; population growth

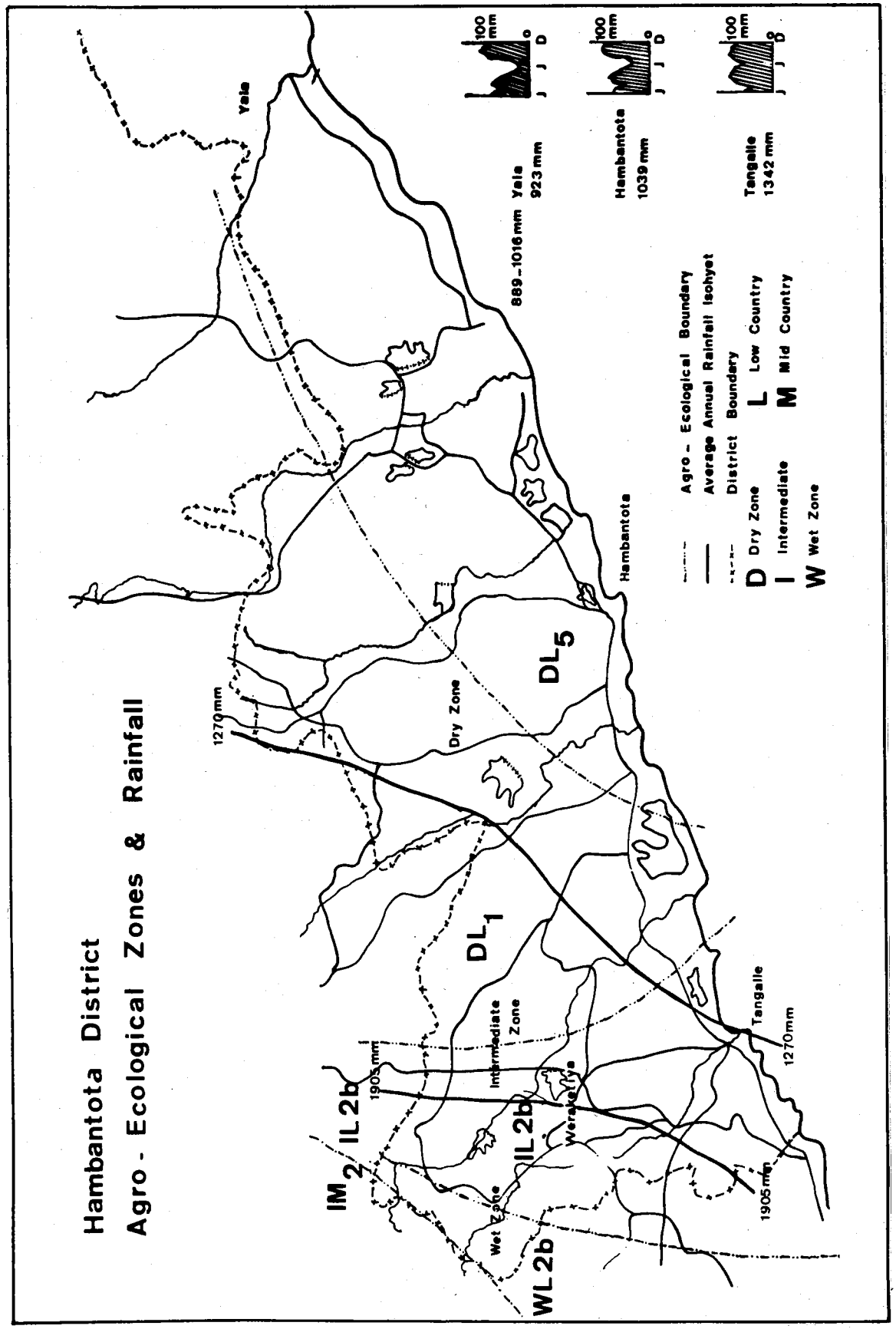
during the intercensal period 1971-81 thus amounted to 24.7 per cent, or 2.2 per cent a year in terms of the annual compounded growth rate. This was considerably higher than the national average, which then stood at 1.7 per cent a year.

From the ethnic point of view, Hambantota is the district of Sri Lanka having the most homogeneous population. The predominant group, the Sinhalese, constituted 97.1 per cent of the population in 1981. Sri Lanka Moors and Malays accounted for about three-quarters of the tiny non-Sinhala minority and most of them resided in the urban areas of Hambantota. In the rural areas, the population was even more predominantly Sinhalese (98.5 per cent at the 1981 Census). Ethnic strife, which has played such a devastating role in the recent history of Sri Lanka, is therefore unlikely to stand in the way of Hambantota's development.

The district shows a very pronounced variation in agro-climatological and ecological conditions, the most significant aspect of it being the contrast between a wet zone in the west and a dry zone in the east. The Wet Zone, which comprises only about 5 per cent of the area of the district, receives an annual rainfall ranging between 1.9 and 2.5 m. The Dry Zone, at the other extreme, registers precipitations below 1.3m a year (in the driest sub-zone ranging between 889 and 1016mm a year); the Dry Zone covers about two-thirds of the area of the District. Between the Wet and the Dry zones, it is customary to distinguish an Intermediate Zone. These conditions determine economic activity as well as many social and cultural characteristics of the people of the district (McCall, 1990:14).

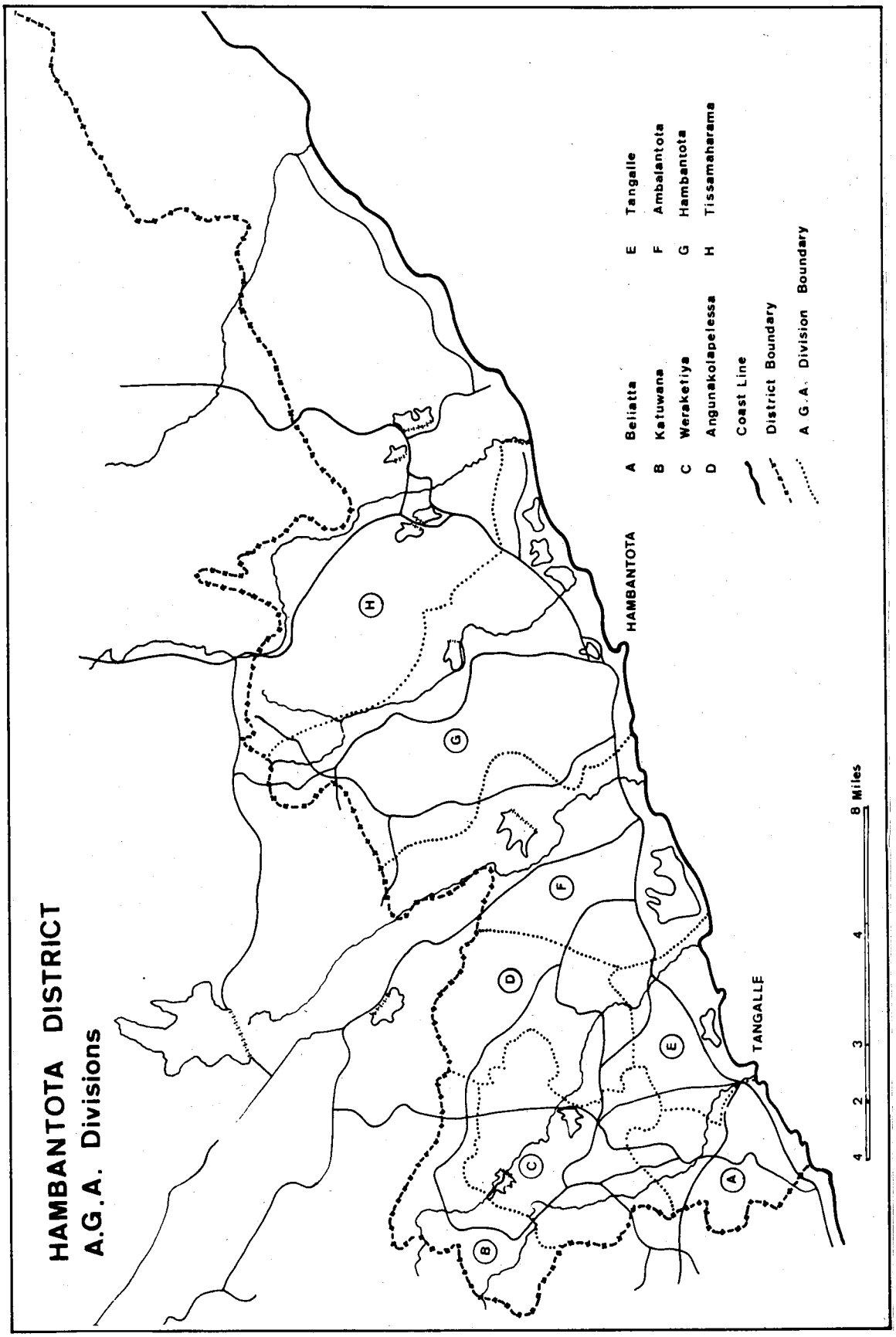
From the point of view of the settlement pattern (population growth and population density), there is certainly a strong contrast between Wet and Dry Zones, as shown in table 2.1. In terms of administrative (AGA) divisions, the Wet Zone comprises most of Katuwana, part of Weeraketiya and a small part of Beliatta; the Intermediate Zone covers parts of the same AGAs as well as Angunakolapelessa, Ambalantota and Tangalle; the Dry Zone covers Hambantota and Tissamaharama (see maps 1 and 2).

Map 1



Source: Smith 1986:6

Map 2



Source: Smith 1986:21.

Table 2.1
Population distribution by AGA Division, 1981 census

Zone/AGA Division	Area (km^2)	Population	Population growth 1971-81	Population density inhab/km^2
Wet and intermediate				
Angunakolapelessa	180	34,330	3%	191
Beliatta	100	48,371	3%	483
Katuwana	165	52,858	12%	320
Tangalle	150	55,804	26%	372
Weeraketiya	195	67,712	9%	347
Sum	*790*	*259,075*	*11%*	*328*
Dry				
Ambalantota	260	54,629	49%	210
Hambantota	500	52,257	69%	105
Tissamaharama	1040	58,383	52%	56
Sum	*1800*	*165,269*	*56%*	*92*
Hambantota	**2590**	**424,344**	**25%**	**164**

Note that the above nomenclature of AGAs does not reflect the current situation, following the creation of Lunugamvehera and Okewela AGAs in 1989. There are no population figures available according to the present AGA set-up. Sources: Adapted/calculated from Smith, 1986:64 and Sri Lanka,1984:1.

The highest population density (480 inhabitants per square kilometre in 1981) is found in Beliatta, a typical Wet Zone district; Tissamaharama, at the other end of the district, had less than 60 inhabitants per square kilometre in 1981. One of the important perspectives of HIRDEP was indeed to contribute to evening out these disparities, by creating the conditions for settlement in the Dry Zone of the overflow of population from the crowded Wet Zone. As shown in table 2.1 the process was already well under way in the 1970's, i.e. prior to HIRDEP. The AGAs on the

wetter side (to the west) of the 1270 mm annual rainfall isohyet, with the exception of Tangalle, experienced very modest population growth in that decade — in the case of Angunakolapelessa and Beliatta, practically no growth at all. On the other hand, the AGAs of the Dry Zone registered vigorous population growth — so vigorous in fact that the question of the sustainability of such a trend immediately comes to mind. In the rural areas of Hambantota, population grew at a rate of 6.2 per cent a year; at this pace, population would double in less than twelve years or become fourfold in the time span of one generation. In the rural areas of Tissamaharama, the rate of growth was considerably less (4.3 per cent a year), but still enough to ensure a doubling of the population every 16 years.

2.1.3 Little inter-district migration, but strong intra-district mobility

The more rapid growth of the population of Hambantota compared to the national average, added to the very rapid increases observed in the Dry Zone, have created the impression the Hambantota is a district of considerable immigration. This, however, appears out not to be the case (at least until 1981). The census figures, used in combination with vital registration statistics, show that almost all of the population growth rate observed during the period 1971-81 could be explained by the excess of births over deaths and that therefore net immigration from the other districts must have been practically negligible. To be precise, the migration balance was estimated at less than 1,000 net immigrants for the whole period.

Also other indicators suggest that Hambantota is not at the receiving end of any strong migration streams: looking at the 1971 census data on place of residence by place of birth it appears that the proportion of the population of Hambantota born outside the district was a mere 15 per cent, only slightly higher than the proportion of people born in Hambantota living outside the district (12 per cent). In 1981, the corresponding data even show a very slight negative balance in terms of life time migration, as the census counted 56,631 natives of Hambantota residing elsewhere in Sri Lanka (life-time emigrants) but only 53,649 residents of Hambantota born outside the district. (Sri Lanka, 1985:table 2). Besides, data on marital status from the 1981 census show a 4 per cent excess of currently married women over married man among the population of the district — a feature that one would not find in a typical immigration area.

Intra-district mobility is not directly documented by the census in the same way as inter-district migration, which can be evidenced by cross-

tabulating, for each individual, place of residence and place of birth and thus identifying the so-called "life-time migrants". However, the differentials in the rate of growth of the various AGAs are a possible indicator of emigration/immigration to extent that these differentials cannot plausibly be ascribed to variations of the levels of fertility or mortality. Another clue to migration lies in the imbalances of the sex ratio: since males tend to be more mobile than females, a deficit of males in a given area would normally point at emigration from that area, while an excess of males would conversely suggest immigration to the area.

The patterns of migration suggested by the analysis of the sex ratios found in the urban and rural populations of the different AGAs in 1981 conform to the general perception of the existence of important migration flows from the western parts of Hambantota towards the dry eastern zone. The largest deficit of males was found in the rural areas of Beliatta — as we have seen in table 2.1, the AGA with highest population density and one of those which were unable to absorb practically any population growth in the 1970's. The most marked excess of males was found in the urban area of Tissamaharama, which experienced a population boom during the same period (table 2.3).

Table 2.2
Sex ratios of urban and rural populations by AGA (males per 100 females)

AGA	Rural	Urban	All
Ambalantota	113	116	113
Angunakolapelessa	111	none	111
Beliatta	90	108	92
Hambantota	121	119	120
Katuwana	95	none	95
Tangalle	94	107	96
Tissamaharama	121	141	123
Weeraketiya	94	108	94
Hambantota	*103*	*116*	*105*

Source: Calculated from Sri Lanka, 1984:1.

There is of course well established observational evidence of seasonal movements, some affecting agriculturalists practising *chena* (shifting) cultivation and fisherman, both moving for 6 months or more a year from

their places of residence in the west to their temporary locations in the east. These movements have not been quantified in a comprehensive and systematic manner, although *chena* cultivation remains one of the district's prominent socio-economic features and very much a central issue in the background of HIRDEP.

2.1.4 A weak urban structure

Another important aspect of the demographic background of Hambantota district is the weakness of the urban structure: only about 10 per cent of the population lived in urban areas in 1971 and that proportion did not change from 1971 to 1981. However, the low level of urbanization of Hambantota is far from exceptional in the context of Sri Lanka: in fact, in 1981, there were 9 districts with even smaller proportions of urban population.

The urban population of Hambantota district lived in 6 urban centres, the largest of which, Ambalantota had approximately 11,000 inhabitants; Tangalle came second and Hambantota, the district capital, third. Only Tangalle and Hambantota had the status of Urban Councils, but their growth — particularly in the case of Tangalle — was considerably less dynamic than that of Ambalantota. The fastest growing urban population was that of Tissamaharama, but this locality, although growing nearly twice as fast as Hambantota, was still considerably smaller (see table 2.3).

As we have seen above (table 2.2) there is a greater excess of males in the urban areas (116 males for 100 females) compared to the rural areas (103 males for 100 females); the analysis of the age specific sex-ratios shows that it is the age groups comprised roughly between 15 and 45 that contribute the most to this imbalance, suggesting that the urban areas are the home of a sizeable number of "unsettled" male migrants who either are unmarried or otherwise did not bring their spouse.

Little is known about the socio-economic structure of the individual urban areas, the dynamics of their human resources and their potential as poles of development in the context of the district. The prevalent view is that "the towns in the district are predominantly market towns and administrative centres and those industries that do exist are mainly garages, workshops and mills, rather than manufactures" (McCall, 1990:47). This is borne out by the data from the 1981 census on the structure of urban employment by division of industry (Sri Lanka, 1984: tables 20-21), which show that community services (essentially public administration and health) together with trade (essentially retail trade) accounted for 53 per cent of all urban employment; agriculture (essentially paddy production) accounted for

another 17 per cent; manufacturing accounted for a mere 5 per cent, as much as the transport or the construction industries.

Table 2.3
Urban and rural growth (1971-81) and level of urbanization (1981) by AGA

AGA	Rural population		Urban population		Proportion
	1981 census	Growth 1971-81	1981 census	Growth 1971-81	urban 1981
Ambalantota	43,546	52%	11,083	35%	20%
Angunakolap.	34,330	3%	none	none	0%
Beliatta	44,912	2%	3,459	8%	7%
Hambantota	43,680	82%	8,577	24%	16%
Katuwana	52,858	12%	none	none	0%
Tangalle	46,210	31%	9,594	10%	17%
Tissamaharama	51,979	52%	6,404	47%	11%
Weeraketiya	65,399	8%	2,313	22%	3%
Hambantota	*382,914*	*25%*	*41,430*	*24%*	*10%*

Sources: Calculated/adapted from Smith, 1986:64 and Sri Lanka, 1984:1.

2.1.5 The household in Hambantota

Most people in Hambantota — to be precise, 98 per cent of them according to the 1981 census — live in households and by definition every household has a "head". Very often, i.e. in 7 cases out of 10 the head of the household will be a married male. But it could also be a female — in 2 cases out of 10, either a married or previously married women (i.e. a widow, divorcee or separated women) and extremely seldom (1 per cent of the cases) a never-married female. The proportion of female headed households (one fifth) was practically identical in rural and urban areas; in fact, as shown in table 2.4, there was a remarkable absence of urban/rural differentials in respect to who headed households. The slightly higher proportion of urban households headed by married females is probably not significant given the small numbers involved.

Table 2.4
Who headed the households of Hambantota in 1981?
(proportions in 100 households)

Head of the household	Urban	Rural	All
Married male	70	72	72
Married female	12	10	10
Never-married male	7	7	7
Never-married female	1	1	1
Previously married male	2	2	2
Previously married female	8	8	8
All	100	100	100

Source: Calculated from Sri Lanka, 1984:17.

Table 2.5 uses the data on the population of Hambantota classified by relationship to the head of the household so as to yield a more detailed picture of the living arrangements in the urban and rural areas of the district. One finding that could be surprising at first sight is that although urban nuclear families are smaller, their households tend to be larger than those of rural families, because in the urban areas households contain a greater number of distant relatives and non-relatives, perhaps forced into common living arrangements due to the cost of urban housing. Another observation which tends to corroborate this explanation is that although the vast majority (to be precise, 95 per cent) of the children living with their parents are unmarried, urban households comprise on average a slightly higher proportion of married children living with their parents. Otherwise, as expected, the number of children in urban households is smaller than in rural households — but the difference is rather slight. It may also be noted that only in 70 per cent of the households is there a spouse, although more than 80 per cent of all households are headed by currently married people: in other words, roughly one household in 10 is headed by a currently married person whose spouse is absent; with respect to this phenomenon of "absentee" spouses there is no difference between urban and rural households.

Table 2.5
Structure of the average household, Hambantota 1981

Member status	Urban	Rural	All
Head	1	1	1
Spouse	0.7	0.7	0.7
Son or daughter	2.7	2.9	2.9
Other relatives	1.1	0.7	0.8
Non-relatives	0.5	0.1	0.1
Visitors	0.1	0.1	0.1
Total	6.0	5.5	5.6

Source: Calculated from Sri Lanka, 1984:17.

2.1.6 Literacy

Literacy rates as measured by the Censuses (based on the population aged 10 and above) show that Hambantota in 1981 was still lagging behind the national average. This was most clearly the case with respect to the female's literacy level, which was 6 points lower than the national average (see table 2.6). Although literacy rates progressed in Hambantota between 1971 and 1981, so did the rates countrywide, with the result that the relative position in Hambantota did not register any significant improvement.

Table 2.6
Literacy rates (population aged 10 and above), 1981

	Males		Females		Both sexes	
	1971	1981	1971	1981	1971	1981
Hambantota	83%	88%	64%	76%	74%	82%
Sri Lanka	86%	91%	71%	82%	79%	87%

Source: Sri Lanka, 1982:ix and Sri Lanka, 1984:xv.

The age specific literacy rates (table 2.7), which bring out the differences between the younger and older cohorts, also reflect the history of basic education in Hambantota. For males, the tradition of basic education is well established: even among the oldest men in the rural areas, the proportion

of literates does not fall much below 70 per cent and the difference between rural and urban males in this respect is not overwhelming. For females, on the contrary, the trend towards universal basic education is still clearly visible in the progress of the literacy rates from one cohort to the next, and in the gradual fading of the much greater educational advantage of urban females over their rural counterparts. Among the oldest cohorts — those aged 75 and above in 1981 and thus born in 1906 or earlier — only one rural women out of five was literate; the cohorts born around 1922-26 were the first to have a proportion of two literate women out of five; after another fifteen years came the first cohorts (1937-41) having a slight majority of literate women among all women. From then on the progress of literacy became extremely rapid and the cohorts of rural women born shortly after independence (in table 2.7, the age group 30-34) learnt to read in a proportion of four out of five. However, it is only among the cohorts younger than 20 that an equality of access to basic education was achieved for all, abolishing the traditional gap between the most privileged group (urban males) and the least privileged (rural females).

Table 2.7
Age specific literacy rates, Hambantota 1981

Age group	----Males----		---Females---		----------Both sexes--------		
	Urban	Rural	Urban	Rural	Urban	Rural	All areas
10-14	91%	88%	91%	90%	91%	89%	89%
15-19	92%	88%	93%	90%	92%	89%	89%
20-24	94%	90%	93%	89%	94%	90%	90%
25-29	96%	92%	93%	88%	95%	90%	91%
30-34	95%	92%	91%	81%	93%	86%	87%
35-39	94%	88%	87%	69%	91%	79%	80%
40-44	92%	85%	79%	56%	86%	71%	72%
45-49	88%	81%	71%	47%	80%	64%	65%
50-54	89%	81%	68%	45%	80%	64%	66%
55-59	90%	80%	69%	40%	81%	61%	63%
60-64	89%	80%	57%	38%	75%	62%	64%
65-69	90%	77%	60%	33%	74%	58%	59%
70-74	78%	78%	42%	26%	60%	55%	55%
75 & +	80%	69%	42%	19%	60%	45%	46%
10 & +	92%	87%	85%	75%	89%	81%	82%

Source: Adapted from Sri Lanka, 1984:30-32.

In table 2.8 we have summarized the literacy situation for some broad key population groups of topical relevance: "the youth", women of reproductive age, people of working age, and the elderly. Except for the elderly, literacy differentials are not a generational issue among males and urban females. Among rural females, however, the proportion of literates among the women of reproductive age was due to increase throughout the 1980's with the arrival of "the youth". Considering the generally observed tendency for better educated women to have fewer children, this development suggests that one would have reason to believe in a continuation throughout th 1980s of the trend of declining fertility observed in previous decades.

Table 2.8
Summary of the literacy situation, by broad age groups

	Males		Females	
Age groups	Urban	Rural	Urban	Rural
The youth (ages 10-25)	92%	89%	93%	89%
Reproductive age (ages 15-49)	n.a.*	n.a.*	89%	80%
Working ages (15-60)	93%	88%	87%	76%
The elderly	85%	76%	51%	30%

* not applicable
Source: Calculated from Sri Lanka, 1984:31-32.

In fact, this hypothesis is all the more likely that the educational progress of younger females extends well beyond basic literacy. In 1981, as shown in table 2.9, nearly half of the girls aged 15-19 in Hambantota were still attending school. It is also clear that girls, who used to be an underprivileged group in terms of basic education, have now taken to secondary education with a vengeance, showing much higher rates of school attendance than boys at age 15 and above.

Table 2.9
Children and adults under 30 attending school and other educational institutions, Hambantota 1981

Age	Males			Females		
	Total	Attending school*	Rate	Total	Attending school*	Rate
6-9	20972	19777	94%	20038	18879	94%
10-14	25064	21016	84%	24615	21119	86
15-19	24000	9147	38%	23199	10478	45
20-24	23080	1854	8%	22319	2563	11
25-29	19309	231	1%	19135	312	2

* Including educational institutions other than schools.
Source: Computed from Sri Lanka, 1984:table 12.

The above data on literacy and school attendance suggest that in Hambantota about 5 per cent of the children in the post-independence cohorts do not go to school and about 10 per cent remain illiterate. Finding out who these children are and what can be done to educate them would seem to be a relevant task for HIRDEP.

2.1.7 The family in transition: changing marriage patterns, decline of fertility

The census data give some indications about two socio-demographic processes which, together with the increase in literacy rates among females, must be considered among the most significant development trends in Hambantota in the 1970's: the changing marriage patterns and the decline of fertility.

Table 2.10 shows how the proportions of women currently married in the different age groups have changed since 1963. In order to facilitate the interpretation of these figures, one may recall that social development is usually associated with two features in relation to marriage patterns: women tend to marry later, but they tend to stay longer in married status, as unions are less often dissolved owing to the death of the husband.

Teenage nuptiality is becoming an increasingly uncommon phenomenon even if Hambantota is not the most advanced district in this respect; while Hambantota in 1981 had close to 9 per cent of the girls aged 15-19 in

currently married status, Matara had only 5 per cent, Kandy 6 per cent and Galle, Jaffna and Nuruwa Eliya 7 per cent. However, the Hambantota figure compares well with the national average, which was 10 per cent in 1981. More encouraging still, Hambantota was among the districts where the decline of teenage marriages for girls since 1963 had been the strongest (districts like Matara and Galle have "always" had low proportions of currently married girls in the 15-19 age group). Regarding the dissolution of marriage in later life, the level of marital stability in Hambantota is truly remarkable in the context of Sri Lanka: Only 2 other districts, namely Batticaloa and Ampara, showed a higher proportion (90 per cent) of currently married women in the age group 45-49, i.e. at the end of their reproductive life.

Table 2.10
Proportions of currently married women and singulate mean age at marriage, Hambantota district, 1963, 1971 and 1981 censuses

Age group	1963 census	1971 census	1981 census
15-19	13.5%	8.9%	8.7%
20-24	55.7%	46.1%	39.1%
25-29	85.7%	76.9%	64.7%
30-34	88.0%	88.3%	81.8%
35-39	90.0%	89.9%	87.5%
40-44	85.4%	87.9%	88.4%
45-49	80.2%	84.8%	87.6%
Singulate mean age at marriage	n.a.	23.2	24.8

Sources: ESCAP, 1986:43 and Sri Lanka, 1984:xiii.

The data from the last three censuses suggest that Hambantota women have traditionally been more fertile than the national average. This was still the case in 1981, when the Total Fertility Rate in Hambantota stood at 3.8 births per woman, against 3.4 nationally. The differential has thus come down to 0.4 births per women, whereas it was 0.9 around 1961 and 0.7 in 1963. In other words, Hambantota has traditionally had a fertility higher

than average, but in the 1970's it was converging rapidly towards the national level.

Table 2.11
Trends in age specific fertility rates and total fertility rates, 1962-64, 1970-72 and 1980-82, Hambantota

Period	Age groups							Total fertility rate
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
1962-64	45.6	237.8	330.8	285.5	210.9	61.8	76.0	5.9
1970-72	38.8	200.7	258.8	236.6	162.8	50.6	9.8	4.8
1980-81	31.8	171.6	212.5	174.5	121.7	37.9	5.9	3.8

Source: ESCAP, 1986:40.

2.1.8 Thirst for knowledge or disguised unemployment?

Between 1971 and 1981, the increase in the number of people counted by the censuses as employed was a mere 17,000 or the equivalent of 23 per cent of the increase in the population of working age (see table 2.12). The schools took in as students the largest chunk of the population increase, one third of it to be precise. The rest of the population increase went into various categories of non-active population and unemployment, demonstrating the poor labour absorption capacity of the local economy.

Table 2.12
Growth of the various categories of active/non-active population, 1971-81

Population category	1971	1981	Increase	Distribution of increase
Employed	87,484	104,495	17,011	23%
Unemployed	16,890	26,492	9,602	13%
Students	44,863	68,733	23,870	33%
Other non-active	92,642	115,326	22,684	31%
Population aged 10 and above	241,879	315,046	73,167	100%

Sources: Calculated/adapted from Sri Lanka, 1974:various tables and Sri Lanka, 1984:table 24.

The troubled period of the early 1970's saw the arrival into young adulthood of the large post-independence cohorts and the demographic pressure of ever larger cohorts reaching their 20s was probably one important destabilizing factor during that period. By 1981, there were in Hambantota nearly 40 per cent more young adults aged 20-24 years than there had been in 1971. One question that naturally comes to mind is how were these people absorbed in the labour force?

Table 2.13
Occupational structure among young adults, Hambantota, 1971 and 1981

	---------1971--------		---------1981-------	
Males 20-24	Number	Per cent	Number	Per cent
Employed	11,305	68	12,393	54
Unemployed	3,720	22	5,366	23
Total active	15,025	90	17,759	77
Students	749	5	2,230	10
Others	846	5	3,091	13
Total	*16,620*	*100*	*23,080*	*100*
Females 20-24	Number	Per cent	Number	Per cent
Employed	2,287	14	1,686	8
Unemployed	3,001	19	4,150	19
Total active	5,288	33	5,836	26
Students	759	5	2,827	13
Others	10,084	62	13,656	61
Total	*16,131*	*100*	*22,319*	*100*

Sources: Adapted/calculated from Sri Lanka, 1974: Various tables and Sri Lanka, 1984: Table 15.

Table 2.13 shows that between 1971 and 1981 the total increase in the number of males aged 20-24 was 6,460. Of these, the labour market absorbed only 1,088 (the difference between 11,305 in 1971 and 12,393 in 1981) or about 17 per cent; 1,646 or 25 per cent went into open unemployment; 1,481 or 23 per cent became students and the rest, that is about 35 per cent were in various marginal situations shown in the table as "others". Looking at the figures from a different angle, while the number of employed young adult males increased by about 10 per cent, from 11,305

to 12,393 and the number of unemployed increased by 43 per cent, the number of students grew by a formidable 198 per cent, which means that it almost trebled.

Among females, the escape from the labour market into prolonged studies was even more pronounced, because the number of young women reporting to be employed actually fell by about a quarter between 1971 and 1981. The vast majority of the additional women went into the occupational limbo classified as "other", and about one third of them became students. The number of female students aged 20-24 thus grew by 272 per cent.

One could pursue the analysis looking into the corresponding data for the various age groups (see Annexe 1, table A1) but the most critical trends are those affecting the youth in their late teens and the young adults. The population of youth aged 15-19 experienced a more moderate growth compared to their elders aged 20-24: the number of 15-19s in 1981 was only about 16 per cent higher than in 1971, but both sexes experienced a decline of employment (the number of employed youth went down by 20 per cent for males and by 55 per cent for females). It became very rare for young girls to be employed (4 per cent of the 15-19 in 1981, against 9 per cent in 1971). And whereas 33 per cent of the boys in the age group 15-19 had been employed in 1971, by 1981 the proportion was only 23 per cent. For both sexes, there were large increases in the number of students: more than 75 per cent for boys (from 5,380 in 1971 to 9,508 in 1981) and nearly 90 per cent for girls (from 5,690 to 10,804).

Table 2.14
Proportion of people unemployed and actively seeking employment in the total population, by level of educational attainment, Hambantota 1981

Educational attainment	Males			Females		
	Total	Seeking work	% seeking work	Total	Seeking work	% seeking work
No schooling	15,624	11,015	6	34,056	507	1
Grades 1 to 7	97,514	6,382	7	73,772	2,474	3
Grades 8 or 9	24,258	2,840	12	20,524	1,792	9
GCE O level	18,010	3,540	20	19,279	4,788	25
GCE A level	3,272	677	21	3,909	1,239	32
Degree*	1,645	90	5	1,042	106	10

* including higher than GCE but lower than degree
Source: Adapted/calculated from Sri Lanka, 1984: tables 13, 14 and 29.

The progress of education is no doubt a precious asset for the social development of the district. However, as shown in table 2.14, in Hambantota in 1981 the higher the educational attainment (up to GCE A level), the higher also the chances of being unemployed in the strict sense (unemployed actively looking for work). This raises two issues which obviously were not successfully addressed in Hambantota: one is the issue of what changes secondary education must undergo in terms of its nature and orientation as it becomes a mass undertaking, rather than the privilege of a few children; the second is what to do with the educated youth who come out of this educational process with expectations that bear little relationship to what the local (and national) economy can absorb. Therefore the "thirst for knowledge" that seized the younger generations in the 1970s did not bode entirely well for the future.

2.1.9 The structure of employment: Where do the jobs come from?

As noted above, the economy of Hambantota showed a relatively poor labour absorption capacity in the 1970s, since the employed population increased by only 19 per cent between 1971 and 1981 while the population of working age grew by 30 per cent if we count everybody over 10, or even by 38 per cent if we consider only those aged between 15 and 60. Table 2.15 shows that the structure of employment remained remarkably stable during that period. Agriculture continued to be the major source of employment in the district, and although it lost a little ground in its share of total employment, it still managed to expand the number of jobs by 17 per cent. The performance of manufacturing was dismal, since it actually lost nearly 8 per cent of its jobs and therefore saw its share of the labour market decline from 7 per cent to 5 per cent. Most of the industries that grew fast were relatively unimportant in terms of absolute numbers of jobs, except for the construction industry which stood for 10 percent of the employment creation in Hambantota.

Table 2.15
Structure of employment by industry, Hambantota 1971 and 1981

Division of Industry	1971	Per cent distribution	1981	Per cent distribution	Change 1971-81	Per cent change
0 Agriculture	53,825	62	62,910	60	9,085	17
1 Mining	247	<1	796	1	549	222
2 Manufacturing	6,062	7	5,586	5	-476	-8
3 Energy and water	117	<1	212	<1	95	81
4 Construction	3,029	3	4,811	5	1,782	59
5 Trade	5,905	7	7,781	7	1,876	32
6 Transport	1,815	2	2,401	2	586	32
7 Business services	369	<1	707	1	338	92
8 Social services	9,280	11	11,710	11	2,430	26
9 Other	6,835	8	7,580	7	745	11
All	*87,484*	*100*	*104,494*	*100*	*17,010*	*19*

Note: The full titles of the divisions of industry are as follows : 0 Agriculture, hunting, forestry and fishing; 1 Mining and quarrying; 2 Manufacturing; 3 Electricity, gas and water; 4 Construction; 5 Wholesale and retail trade and restaurants and hotels; 6 Transport, storage and communication; 7 Finance, insurance, real estate and business services; 8 Community, social and personal services; 9 Activities not adequately defined
Source: Adapted/calculated from Sri Lanka, 1974:table 18 and Sri Lanka, 1984:table 20.

If we look at the changes in the employment by sex (table 2.16) we find that the dismal performance of the local economy in terms of job creation is due to a large extent to the heavy loss of female employment in the manufacturing sector (essentially in the "spinning, weaving and manufacturing of textiles") and a slight decline of female employment in agriculture. Males fared considerably better in all the important sectors, including manufacturing, where employment for them grew by 55 per cent. The only sector which showed ability to create employment for women in relatively large numbers was the "community, social and personal services sector" — particularly the education services which increased the number of their female employees by more than 1,000 and public administration which added another 600 (Sri Lanka, 1974:table 17 and Sri Lanka, 1984:table 21).

Table 2.16
Trends in employment by sex and division of industry, 1971-81

Division of Industry	Males			Females		
	1971	1981	Change	1971	1981	Change
0 Agriculture	47,935	56,871	8,936	5,890	6,039	-149
1 Mining	238	754	516	9	42	33
2 Manufacturing	3,231	4,264	1,033	2,831	1,322	-1,509
3 Energy and water	116	207	91	1	5	4
4 Construction	2,966	4,600	1,634	63	211	148
5 Trade	5,218	6,962	1,744	687	819	132
6 Transport	1,776	2,322	546	39	79	40
7 Business services	359	609	250	10	98	88
8 Social services	7,210	8,079	869	2,070	3,631	1,561
9 Other	4,870	6,084	1,214	1,965	1,496	-469
All	*73,919*	*90,752*	*16,833*	*13,565*	*13,742*	*177*

Note: For full titles of industry divisions see table 2.15 above
Sources: Same as table 2.15 above.

2.2 What happened during the 1980s?

The absence of a population census in 1991 makes it, to say the least, very difficult to establish with any degree of certainty the socio-demographic trends that prevailed in Hambantota during the first decade of HIRDEP. The picture is further complicated by the fact that life in the district was disrupted by severe civil disturbances affecting the Southern Province from the fall of 1987 to early 1989. These disturbances were violent in many places and are said to have caused a large number of deaths that went unreported. Rumours put the number of deaths and "disappearances" in the thousands or even the tens of thousands, but we hasten to note that there is no formal evidence of this — certainly not in the vital registration data. Even a fraction of the mortality figures often mentioned unofficially would have a profound impact on the age and sex structure of the population, especially if those deaths had been concentrated among younger adult males — as one could expect, given the circumstances. In addition to the toll of deaths that they took, the disturbances have arguably also disrupted family life and forced people to move out of the district. All this makes for exceptional demographic circumstances which cannot be captured by a simple extrapolation of past trends of mortality, fertility and migration. Also for this reason, there is a pressing need to carry out a new population census in Hambantota at the earliest opportunity.

2.2.1 *Fertility and mortality as captured by vital registration data*

The completeness of vital registration at the national level has been subjected to several evaluations over the years and the conclusion has repeatedly been that vital events, especially births, are well accounted for. At the district level, however, things might be different, for two reasons: one reason is that births and deaths being registered at the place of occurrence rather than at the place of residence, this results in over-allocation of vital events to districts where hospitals, maternities and other health infrastructure are available and under-allocation of vital events to districts which do not have such facilities. The assumption is that people travel in significant numbers across district borders in search of medical attention; the case of Colombo — whose high levels of fertility and mortality, including infant mortality, are out of step with its level of development — is a well known indication that such migration movements do take place. However, it seems plausible that the incidence of such migration will vary from one district to another; given the lack of quantitative information on this phenomenon it is difficult to say how it would affect the individual districts. The other reason why vital registration may be less satisfactory at the district level is that some districts may have a significant incidence of under-reporting in remote areas — not enough to damage the credibility of vital registration nation-wide, but yet at a scale that shows at district level.

Table 2.17
Vital registration based estimates of birth rates and death rates, Hambantota and Sri Lanka, 1979

	Birth rate*	Death rate*	Infant mortality rate**	Maternal mortality rate**
Hambantota	31	5	24	0.4
Sri Lanka	29	7	38	0.8

* per thousand ** per thousand births
Source: HIRDEP.

The reason why these considerations are brought up here is that the mortality levels of Hambantota district are apparently too low in relation

to the district's level of development and thus cannot be accepted without question. Table 2.17 shows the situation at the inception of HIRDEP in 1979. Many of our informants suggested that these low levels of recorded mortality were due to people seeking treatment for serious illnesses at the regional hospital in Matara rather than at the more basic facilities within Hambantota district. However, this hypothesis is not validated by the vital registration figures of Matara district, which also are lower than the national average (although slightly higher than in Hambantota).

Birth rates in Hambantota being higher than the national average, there is less reason to question the completeness of birth registration; indeed, the general experience with vital registration systems is that under-registration of births is less of a problem than under-registration of deaths, because a child will sooner or later need a birth certificate. However, a study comparing registration-based fertility estimates and census-based own-children estimates for 1971 found in Hambantota a difference of about 13 per cent between the two indicators, which the authors interpreted as a possible indication of under-registration of births (Ratnayake et al., 1984:55). However, the interpretation of the discrepancies is not straightforward, since districts showing the largest excess balances of registration-based estimates over own-children estimates are not Colombo, Matara or Galle but rather Mannar, Matala, Jaffna and the like.

Table 2.18
Registered births and deaths and corresponding rates, Hambantota district 1981-89

Year	Number of births	Number of deaths	Crude birth rate**	Crude death rate**	Infant mortality rate***	Maternal mortality rate***
1981	12,992	1,885	31.0	4.5	19.0	0.2
1982	12,717	1,985	29.0	4.5	18.0	0.8
1983	12,763	1,885	28.5	4.2	14.0	0.4
1984	11,748	1,934	25.7	4.2	16.0	0.3
1985	12,327	1,984	26.3	4.2	12.3	0.3
1986*	10,650	1,863	22.3	3.9	13.0	n.a.
1987*	10,764	1,884	22.1	3.9	10.1	n.a.
1988*	9,195	1,851	18.6	3.7	9.0	n.a.
1989*	10,594	2,336	21.1	4.7	5.5	n.a.

* provisional ** per thousand population *** per thousand births
Source: Registrar General's Office (personal communication).

Another study (ESCAP, 1986) compared the population aged 0-4 as enumerated by the censuses of 1971 and 1981 with the corresponding figures as estimated on the basis of birth and death statistics by district. The study shows that in Hambantota the 1981 census found 3 per cent more children than expected on the basis of vital registration data while in Matara the opposite was true: the census counted some 9 per cent less children. The difficulty here is that the method does not distinguish between registration of births and registration of deaths, which may suffer from different forms of inaccuracy, to different degrees; while these findings are consistent with the hypothesis that a number of women from Hambantota would give birth at the maternity in Matara and thus cause an over-registration of births in that district, it is not consistent with the similar hypothesis that also a number of ill children from Hambantota would die in Matara.

There is no hope here of finding a definitive answer to the question of the accuracy of vital registration data in Hambantota but it might be useful to illustrate the implications of this uncertainty for our understanding of the demographic dynamics in the district. The first point that must be retained is that the large discrepancies between the Hambantota infant mortality rate and the national average are much less impressive when translated into absolute numbers. For 1981, for instance, raising the observed infant mortality rate in Hambantota (which was 19 per thousand births) to the national level (29.5 per thousand births) would mean an increase by 136 deaths, hardly a significant amount in a population of nearly 420,000 people.

Such a correction would bring the crude death rate to 4.8 per thousand inhabitants, still far short of the national figure, which was 5.9 per thousand. Doing this, we are making the very bold assumption that infant deaths were under-reported in a proportion of one out of three, which seems rather difficult to believe. In order to obtain a crude death rate for the district identical to the national average, the number of non-infant deaths (i.e. deaths above age 1) would have to be inflated by some 27 per cent — thus implying another very bold assumption, namely that more than one non-infant death out of four went unregistered. Having accepted all these extraordinary assumptions, the number of deaths for 1981 would have been corrected to 2471 instead of the registered figure of 1885.

Considering the balancing equation (P representing the population figure)

$$P_{1981} = P_{1971} + \text{Births} - \text{Deaths} + \text{Net migration}$$

the assumption that deaths have been underestimated would have made room for some net immigration between 1971 and 1981. But if we assume that some deaths have gone unreported, it is fair to assume that the registration of births is also to some extent incomplete — which brings us to the observation that a modest correction in the number of births, say by 5 per cent would be enough to cancel out the above increase in the number of deaths.

In summary, from a purely demographic point of view (i.e., in relation to population growth), the possible defectiveness of registration of deaths does not seem to be of great significance. But, from the substantive point of view of development planning and development assistance policy it would seem very important to know with certainty whether the death rate and the infant mortality rate are really as low as the registration data imply. If that was the case it would mean that Hambantota is a vastly privileged district in terms of mortality conditions and the question could be raised whether, for the sake of social equity, efforts to improve health services might not rather be directed to districts in greater need of such help.

Setting aside the important methodological doubts raised by the data, one is struck by the dramatic reduction of the birth rate in Hambantota since 1981: in less than one decade, the birth rate was cut by about one-third. The trends of mortality are more complex. On the one hand there is a dramatic decline of infant mortality — even if we chose to ignore the provisional figure for 1989, which seems highly questionable, there is still roughly a halving of the infant mortality rate from 1981-82 to 1986-87. On the other hand general mortality decline has been less impressive (15 per cent reduction between 1981-82 and 1986-87. Taking into account some violent deaths due to the disturbances, the conclusion must be that there has been no improvement of adult mortality on the whole, perhaps quite on the contrary. The fluctuations of the maternal mortality rate are not worthwhile to comment upon, since these rates in Hambantota are based on an exceedingly small number of events (typically 4-5 maternal deaths per year).

2.2.2 Internal migration captured by electoral data

The Commissioner of Elections compiles every year the number of registered voters in the 237 polling stations of Hambantota District. Although the population of voters is restricted to people aged 18 and above, such a statistic would be of great demographic interest if it were published by AGA rather than by "electorate" as it is normally the case. There are four electorates in Hambantota district, namely: Mulkrigalle (comprising

Katuwana and Weeraketiya AGAs), Beliatta (Beliatta and Okewella AGAs), Tangalle (Ambalantota, Angunakolapelessa and Tangalle AGAs) and Tissamaharama (Hambantota, Lunugamvehera Suriyawewa and Tissamaharama AGAs). Table 2.19 shows how the number of registered voters has changed in each of the electorates during the 1980s.

Table 2.19
Number of registered voters by electorate

	Electorates				
Year	Mulkrigale	Beliata	Tangalle	Tissamaha.	Total
1981	57,491	56,254	58,690	69,518	241,953
1982	58,773	57,646	61,050	72,150	259,626
1983	61,467	59,581	63,497	75,468	260,013
1984	62,975	60,688	65,350	80,301	269,314
1985	64,449	61,538	67,319	83,781	277,087
1986	65,411	61,773	68,376	89,387	284,947
1987	66,749	62,773	70,422	95,245	295,189
1988	68,232	63,708	72,495	96,582	301,017
1989	70,015	64,291	74,832	98,986	308,224

Source: Hambantota Commissioner of Elections, personal communication.

The pattern of demographic growth suggested by this figures is similar to the trends observed in the 1970s with the western parts of the district registering slow growth (14 per cent for Beliatta electorate and 22 per cent for Mulkrigale over this eight year period) while the eastern zone showed much more vigorous growth (42 per cent for Tissamaharama electorate); Tangalle electorate, geographically in the middle, had an intermediary level of growth (28 per cent). These growth differentials have led to a redistribution of the weight of the individual electorates within the district, as shown in table 2.20.

Table 2.20
Distribution of registered voters by electoral division, Hambantota

Year	Electorates				Total
	Mulkrigale	Beliatta	Tangalle	Tissamaha.	
1981	24%	23%	24%	29%	100%
1989	23%	21%	24%	32%	100%

Source: Table 2.19.

For 1989, in connection with the Pradeshiya Sabha elections, the Commissioner of Elections has produced a special breakdown of the number of registered voters by AGA (table 2.21). Note should be made that this is the only source providing an (indirect) estimate of the population in the present nomenclature of AGAs, after the creation of Lunugamvehera and Okewela.

Table 2.21
Registered voters by AGA division, 1989

AGA division	Registered voters
Ambalantota	36,203
Angunakolapelessa	23,446
Beliatta	37,814
Hambantota	24,640
Katuwana	37,312
Lunugamvehera	13,276
Okewela	14,784
Suriyawewa	17,447
Tangalle	38,353
Tissamaharama	32,146
Weeraketiya	32,808
Hambantota district	308,224

Source: Commissioner of Elections, personal communication.

The team examined with considerable attention the question of whether the electoral data could be used to "update" the 1981 census figures, the main problem being to ascertain the extent to which registered voters are a "representative" indicator of the population at large. This involves two separate questions: whether there are variations from AGA to AGA in the proportion of people over 18 years of age who register as voters; whether there are variations in the proportion of people over 18 in the total population of the AGAs. In order to address these questions we compared the number of registered voters by electoral division in 1981 with the 1981 census count of people over 18 in the appropriate AGA divisions. Our calculations suggest that there are biases in the number of registered voters as a result of migration: the number of registered voters in some AGAs in the western part of the district exceeded the number of people aged 18 and above enumerated by the Census, while in the eastern AGAs the opposite was true. The explanation is probably that people tend to retain their voter registration in their place of origin and only gradually transfer it to their new place of residence. In view of the above it did not seem worthwhile to pursue the research on this indicator in the context of the present study — but we feel that nevertheless it would be useful to have the electoral statistics aggregated and published at the AGA level and not only at the Electorate level, especially given the current dearth of recent demographic statistics in Hambantota.

2.3 The population challenges ahead: projections from 1981 to 2011

2.3.1 The assumptions

All population projections rely on assumptions about the future course of demographic events; although such assumptions may be convincingly defended, they are always essentially arbitrary. For this exercise, we have chosen the following methods and assumptions:

Base population: as given by the 1981 Census (table 2.22), updated to mid-year 1981, but not corrected for Census under-enumeration, since no district level estimates of Census under-enumeration were available. However, this should not give cause for anxiety about the value of the projection exercise, as the country-wide estimate provided by the Census post-enumeration check indicates that the level of under-enumeration was very modest (only 1.8 per cent).

Fertility: The 1981 baseline level is the set of age specific fertility rates observed in Hambantota district around 1981 (i.e., the average of births registered in 1980, 1981 and 1982 by age of the mother, divided by the number of women in the respective age groups at the 1981 Census. The total fertility rate (TFR) thus obtained stood at 3.8 births per woman, which was higher than the national level of 3.4. We have assumed that fertility would continue to decline to reach a TFR of 1.8 births per woman in 2011. The interpolation gives a TFR of 2.2 for 2001, still slightly higher than the officially projected TFR of 2.1 for the country as a whole. In other words, we have assumed that fertility in Hambantota will continue to decline on a slope that will make it converge with the national level shortly after 2001. Since beyond 2001 there are still no official projections at the national level to guide one's choice of assumptions, the question is basically whether fertility will remain at replacement level or whether it will continue to decline even further. In line with the experience of post-transitional demographic regimes (Europe, South Korea, Singapore, Cuba, etc.) we decided to let fertility continue to drop, although more gently than in the first decades of the projection (see detailed data in table 2.23).

Mortality: The baseline level and pattern of mortality are provided by the life table for Hambantota calculated on the basis of the average number of deaths registered during 1980, 1981 and 1982 and the corresponding population in the various age groups at the 1981 Census. This life table implies a lower mortality level in Hambantota compared to the country as a whole. For the purpose of the projection, the levels of expectation of life at birth were arbitrarily set at 74 years for males and 79 years for females in 2011. It was accepted that the increment in Hambantota should be a little lower than the usual projection at country level, since the level of life expectancy in Hambantota is already high and therefore more difficult to raise further.

Sex ratio at birth: Set at 1.04, based on the experience of vital registration.

Migration: No migration, as supported by the 1981 Census, which revealed that during the period 1971-81 emigration from Hambantota to other districts and immigration from other districts to Hambantota had practically cancelled each other out, leaving a net balance of 755 immigrants for the whole intercensal period.

The computations were carried out with the help of a demographic software package called *People*, version 2.0, developed by Richard Leete.

Table 2.22

Population of Hambantota by sex and age as enumerated by the 1981 census at reference date 17 March (baseline population for the projections)

Age	Males	%	Females	%	Both sexes	%
< 1	6,538	1.5	6,196	1.5	12,734	3.0
1- 4	22,837	5.4	22,317	5.3	45,154	10.6
5- 9	26,267	6.2	25,143	5.9	51,410	12.1
10-14	25,064	5.9	24,615	5.8	49,679	11.7
15-19	24,000	5.7	23,199	5.5	47,199	11.1
20-24	23,080	5.4	22,319	5.3	45,399	10.7
25-29	19,309	4.6	19,135	4.5	38,444	9.1
30-34	15,323	3.6	14,541	3.4	29,864	7.0
35-39	9,769	2.3	9,421	2.2	19,190	4.5
40-44	8,433	2.0	8,269	1.9	16,702	3.9
45-49	8,456	2.0	8,467	2.0	16,923	4.0
50-54	7,765	1.8	6,946	1.6	14,711	3.5
55-59	5,730	1.4	5,182	1.2	10,912	2.6
60-64	5,058	1.2	3,782	0.9	8,840	2.1
65-69	3,473	0.8	2,843	0.7	6,316	1.5
70-74	2,506	0.6	2,035	0.5	4,541	1.1
75 +	3,249	0.8	3,077	0.7	6,326	1.5
All	216,857	51.1	207,487	48.9	424,344	100

Source: Adapted from Sri Lanka, 1984:7.

Table 2.23

Fertility assumptions used in the population projections: Age specific fertility rates and total fertility rates per woman

Age group	1981-86	1986-91	1991-96	1996-2001	2001-06	2006-11
15-19	.027	.024	.021	.019	.017	.016
20-24	.146	.127	.113	.103	.094	.086
25-29	.181	.157	.141	.128	.116	.106
30-34	.149	.129	.115	.105	.095	.087
35-39	.104	.090	.081	.073	.067	.061
40-44	.032	.028	.025	.022	.021	.019
45-49	.005	.004	.003	.005	.003	.003
TFR	3.22	2.80	2.51	2.27	2.07	1.89

2.3.2 The results

According to our projection, the population of Hambantota district will have reached some 527,000 inhabitants as of mid-1991. Our figure thus falls between the estimates of the Registrar General's Office (502 000 in 1989, growing at 1.6 per cent a year) and those of the HIRDEP office (population in 1990 estimated to be in the range 516,000-532,000 and growing at a rate of 2.2 per cent a year).

As can be inferred from table 2.24, the population of Hambantota is expected to cross the 600,000 mark in 1999, to reach some 616,000 two years later, in 2001. This is considerable less than the figures shown by the HIRDEP office in the so-called Environmental Study (McCall, 1990:9), which vary between 641,000 and 703,000 in year 2000. We feel relatively confident about our estimate because our methodology is more analytical and thus — to the extent that our assumptions about the course of fertility and mortality are valid — more robust as well. These assumptions do imply a reduction of the natural growth rate from the level of 2.2 per cent a year observed in the 1970s, which the authors of the Environmental study simply maintained constant in order to obtain their lower figure; the higher figure results from an extrapolation of the growth rates observed in the 1970s at the level of the various agro-ecological zones. In our opinion, the rates observed in the dry lowland DL I (4.9 per cent per year) as well as those observed in the dry lowland DL V (3.3 per cent a year) are unlikely to be sustainable over a 30-year period, in view, inter alia, of the environmental constraints of these areas.

During the coming 20 years, the population of Hambantota district will, according to our scenario, increase by less than one third of its present level: in other words, global population growth will be on average less than 1.4 per cent a year, which does not seem to pose any formidable challenge as such. The challenges are more likely to come from the dramatic changes that are currently under way in terms of age structure and in terms of population distribution among ecological regions and between urban and rural areas.

Table 2.24
Projected population of Hambantota district

	Population		
Year	Males	Females	Total
1981	218,297	208,864	427,161
1986	243,126	234,451	477,577
1991	267,169	259,558	526,727
1996	289,712	283,387	573,099
2001	310,309	305,533	615,842
2006	328,955	325,766	654,721
2011	345,190	343,594	688,784

The detailed population projections by sex and age are shown in the Statistical Appendix of this report, table A3. Table 2.25 summarizes the data for some key age groups: children of pre-school age, school-age children, youngsters entering the labour force, women of reproductive age, the labour force age, the elderly, the very old. Between 1991 and 2011 there will be a *decline* in the number of children under 15, particularly those of pre-school age. This will relieve the school system from demographic pressure, but that respite should be used to meet the demands for improvement of the quality and relevance of the school system — certainly a no lesser challenge than the traditional race to cope with steadily larger cohorts of children.

It is also apparent that women of reproductive age will be increasingly unencumbered by young children: the ratio of children under 5 to 100 women of reproductive age will have plunged from 64 in 1971 to 55 in 1981, 42 in 1991 and 27 in 2011. Undoubtedly, such women are likely to be looking for jobs as they will find themselves more often free to work outside their homes and, with the rise in consumption expectations, "needing" the income from paid employment. However, they will certainly meet fiercer competition since the number of people of working age will increase by some 45 per cent. The demographic pressure on the labour market will be most pronounced in the 1990s, when the population of working age will grow by some 2.3 per cent a year.

Still, the most formidable challenge in terms of the changing age composition of the population will probably come from the very rapid growth of the old age population; in the next twenty years, the number of people aged over 60 will nearly double and the very old (those aged 75 and above) will increase by some 135 per cent. There is little indication that the

authorities have realized the strength and speed of the process of population ageing and even less indication that policies are being devised to cope with it; indeed, trends such as these make unusual demands on development programmes like HIRDEP, traditionally more concerned with schools and mother-&-child clinics rather than homes for the elderly and geriatric health care.

Table 2.25
Projected population in key age groups

Age groups	*1981*	1991	2001	2011	Change 1991-2011
0- 4	*58,272*	58,219	55,066	50,547	-13%
5-14	*101,759*	116,033	114,557	107,758	- 7%
15-24	*93,212*	100,737	115,054	113,811	+13%
15-49 (women)	*106,051*	137,981	169,889	184,086	+33%
15-59	*240,933*	312,380	390,442	452,296	+45%
60 and above	*26,197*	40,096	55,778	78,184	+95%
75 and above	*6,368*	8,588	13,157	20,150	+135%

Regarding the issues of population distribution within the district and urbanization, the data at hand are insufficient to make analytical projections. The simple extrapolation of the trends observed during the 1970's is hardly worthwhile to consider; for instance, it would be absurd to presume that since the level of urbanization of Hambantota remained practically constant between 1971 and 1981 at about 10 per cent, it is destined to stay at that level forever. The urgency of taking a new census in Hambantota as well as the need to complement census data with more in-depth studies of socio-demographic processes are once again underscored.

The lessons of these projections for the planning of social services vary according to the target populations. For the school sector, the 95 per cent level of school attendance registered in 1981 in the age group 6-10 suggests that by now global quantitative expansion of the primary school system is no longer necessary. However, there will be needs for construction arising from changes in the geographic distribution of the population as well as from the need for qualitative improvement of the schools, including major maintenance. For ages above 10, the situation may be somewhat different since, as we have seen in table 2.9, the rates of school attendance in 1981

declined rapidly after age 10: in the age group 10-14, school attendance was only about 84 per cent for boys and 86 per cent for girls, so that there is still scope for expansion of coverage. Between 1991 and 2001 the number of children in this age group is not expected to increase, so that the any additional needs will be driven by increased enrolment rates and redistribution of the population within the district.

With the help of the population data by age and sex on table A3 of Appendix 1 it is easy to figure out the implications of any given set of enrolment rates that one would wish to assume.

The needs for employment creation will be determined by four factors: a) the increase in the numbers of people of working age, b) the changing geographic distribution of the population within the district, c) the employment cut-backs in sectors affected by the restructuring of the local economy, and d) the changes in propensity to work in those age groups, particularly among women, where there is at present a large reservoir of persons in non-active status. The first of these factors is the only one which, given the present scarcity of socio-demographic data, can be usefully addressed from a demographic perspective. Our population projections indicate that the working age population (defined for instance as the age group 15-59) will be growing by an average of 7,800 people annually during the 1990s, slowing down to 6,200 additional people per year during the first decade of the coming century. One may only speculate about how many of these people will actually lay claim to a job, but for the purpose of illustration, let us assume that the age specific employment rates observed in 1981 shall be maintained. Under such conditions, the number of employed males in 1991 would have been about 112,700, raising to 144,409 in 2001 and 171,533 in 2011. In other words, between 1991 and 2001, an average of 3,200 additional jobs for men would have to be created every year; between 2001 and 2011, an average of 2,700 additional jobs per year would suffice to keep the employment rate constant among males. For women, the corresponding figures would be 18,700 employed in 1991, raising to 24,200 in 2001 and 28,700 in 2011, implying 550 additional jobs per year during the first decade and 450 during the second decade. These figures look modest — and they are most certainly on the low side, since employment rates for women in 1981 were very low; but the magnitude of the challenge ahead is best appreciated considering that during the 1970s in Hambantota, only 177 additional woman jobs were created — not per year, but for the whole decade 1971-81!

3. Demographic variables in HIRDEP's planning process

3.1 Some theoretical considerations

It is generally accepted, as a matter of common sense, that population variables must be taken into consideration and even somehow "integrated" in the various stages of a development planning process (i.e., the formulation, implementation, monitoring and evaluation of development plans). However, it is often to be recognized that, in practice, the integration of population concerns in development planning is achieved with various degrees of success — including, alas, no success at all. While a plan will not normally skip the demographic theme altogether, in many cases what one will find is a few population figures thrown in, usually in the opening paragraphs which are likely to be of a descriptive rather than operative nature. Data about population size, density and growth provide for a treatment of these matters that is not substantially different from the treatment afforded to the amount of rainfall or the geological composition of the area for which the plan is being made.

In such cases, it is difficult to detect any perception that demographic variables are not simply part of the backdrop of the development drama, they are also actors playing parts in their own right. To be specific, population growth not only shapes the demand for "development" (in the form of employment creation, infrastructure, social services, etc.) but it also responds to the development effort in the form of declining fertility and mortality, etc. in ways that affect it, so that the whole constitutes in fact an iterative process.

There might be reasons of different nature for the failure to fully integrate population variables in the planning process; let us focus here on some of those reasons that seem relevant to discuss in the context of HIRDEP:

One fairly common problem seems to be what one may call the "drop-in-the-bucket syndrome": if the resources commanded by the planning exercise are arbitrarily pre-determined and besides are clearly small in relation to the needs, planners may find it superfluous or even irrelevant to look very deeply into the quantification of the needs. In other words, if there is

money to create 20 or 30 jobs whereas 2000 would be needed, assessing how raising age at marriage and declining fertility shape the demand for female employment may seem rather futile.

Another common problem is the scarcity of data that are relevant, reliable and timely for the purposes of the planning exercise. This obstacle is often discussed in relation to statistics, i.e. quantitative data, but the situation is normally even worse in respect to qualitative information. It is important to underscore that compared to other parts of the developing world, there is no dearth of "figures" in South Asia — and certainly not in Sri Lanka, the socially most advanced country of the region; at nearly every step of the administration considerable amounts of data are generated or recorded. It is doubtful that the lack of social science intelligence on matters that are of interest to planners and demographers can be corrected simply by placing additional burdens of data collection on field staff.

As we see it, the problem of the quality of the data (in terms of the above mentioned criteria of relevance, reliability and timeliness) is linked to the functional demands of the planning environment, so that a vicious (or virtuous!) circle type of situation tends to develop. A planning process that uses data intelligently, and provides a feed back to those who produce data, is likely to stimulate and inspire the statistical apparatus to assess the quality of its output critically and to work towards its improvement. This in turn is likely to make the planning process even more eager to use data. On the contrary, if the purpose of data collection and processing boils down to providing the basis for a mere descriptive quotation, a numerical embellishment of no practical consequence, then the very lack of functional sanction may well be the most serious obstacle to the improvement of data quality. No amount of exhortation to get the figures right can replace the feeling that information is required for a serious purpose, that it will actually be used, and that the ultimate outcome of the process will in some way be related to the quality of the data that went into it. We suggest that in order to achieve a gradual improvement of the quality of the data, the experience of participation in the planning process has to be more widely shared and the distance between those who generate data and those who analyze them has to be reduced.

But, after all, is it worth the trouble? Why quibble about the quantification of needs if somehow practical results (a school here, a road there) can be achieved for all to see without going through the pains of methodological soul-searching? Of course there are many ways of allocating resources, and some of these ways are obviously more expeditious and perhaps even politically more gratifying in the short term than those advocated by the theory of integrated rural development

planning. However, there are several arguments on which to rest the case for more and better researched decision making. From a more ideological stance one could argue HIRDEP exists as a planning exercise, an act of faith on the viability of integrated development planning as a method of resource allocation in the long run and therefore has a compelling interest in the technical basis of such an exercise. More pragmatically, one could point out to the fact that in at least one important sector, education, the rate of service coverage is so high that the needs have become sensitive to demographic change — for instance in terms of internal migration within the district and the continued decline in the birth rate. It is well possible that also in the health sector there would be considerable scope for fine tuning resources to the changes in the demographic composition of the population.

This brings us to the issue of what precisely should be understood by integrated development planning. In the context of HIRDEP, it is no secret that donor agency and recipient have held different views on this point. The Sri Lankan side traditionally put more emphasis on short-term investments, problem solving and implementation; until recently this was reflected, inter alia, in the name of the Ministry in charge of IRD: Ministry of Plan Implementation. This signified, as Michael York Smith puts it, that "this was to be rural development, not a planning exercise" (Smith 1986:11). NORAD on the other hand has emphasised comprehensiveness of efforts based on data collection and analysis on a broad scale, with development covering the whole district in a coordinated fashion, paying special attention to the needs of underprivileged people, particularly poor women (Smith, *ibid.*).

Initially we assumed that the label "integrated development" gave us reason to expect that HIRDEP should be able give full consideration to, *inter alia*, population variables and demographic concerns. However, this classic interpretation of what development planning is about turned out to be somewhat at odds with the "populist" flavour of HIRDEP's variety of planning, with its emphasis on short-term, small-scale and grass-root orientation. Demographic concerns are typically medium and long term, rather than short term. Moreover, the costs and benefits of demographic behaviour may not be always clear at the level of the individual community, or realistically perceived by those senior males who typically articulate the community's demands. This suggested that not all kinds of "integrated planning" in fact should be expected to offer the same scope for meaningful integration of demographic concerns. At very small geographical levels, population variables tend to become too dominated by random factors and significant trends may not emerge with clarity even in

the medium term, much less from year to year. From the point of view of the integration of demographic concerns, the most congenial planning environment is probably a medium term regional plan based on a politically viable "grand design", a vision of objectives that determines sectoral balances and priorities and thus will bear on migration and perhaps indirectly on other demographic variables as well.

Until recently, there was very little of this perspective in HIRDEP. York Smith notes that even the "anticipatory and predictive elements" of planning had been little utilized and the example that he gives, relating to the development of cluster settlements around rehabilitated tanks, is one that has clear demographic aspects, although he does not say so explicitly. "The likely future needs of the settlers", he writes, "were predictable in general terms, it could be foreseen that more schooling facilities (for example) could be necessary at some stage, more closely related to the settlement locations. But it was not until the settlers themselves began to express demands that an additional proposal was put forward. It is not that the facilities should have been provided earlier (...) but their need could have been anticipated and timely provision made. Planning should not be limited to those things which are to be done immediately or for which funds are immediately available" (Smith 1986:32).

In recent years, several factors have emerged to disturb HIRDEP's preoccupation with the short-term, small-scale, incremental approach. One of these factors has been the increased sensitivity to environmental concerns, nationally and at the district level. The low population densities of the eastern part of Hambantota district make it look like a "frontier" region capable of accommodating the overflow from the very densely populated areas in the west. But this is the short term perspective. As we have seen in chapter 2, the rates of population growth observed in the rural areas of Hambantota between 1971 and 1981, if they were to continue, would cause a doubling of the population in 12 years; for Tissamaharama, the doubling time would be 17 years. This is not something that can be contemplated with confidence, given the carrying capacity of these ecological areas. Generally speaking, the notion that the present generation has a responsibility towards coming generations to pass on a viable environment gives a new impetus to planning for a "grand design", something that will make the planning exercise more open to demographic concerns.

3.2 Review of HIRDEP's treatment of demographic issues

We shall in the following pages review how demographic variables have been taken into account by HIRDEP at the various stages of the programme's history, as far as it transpires from sources that we assume are representative of HIRDEP's evolution: the base-line report by 3 Norwegian geographers (Axelsen et al. 1978); the first comprehensive, retrospective assessment by one of the planners (Smith 1986) and the latest documents from HIRDEP, including not only the regular Annual Programme and Status and Completion Report sets, but also the Environmental Study (McCall 1990), which are taken to reflect current thinking and practice and perhaps indicate future trends.

3.2.1 In the beginning

The amount of baseline demographic information on Hambantota district that was available (and used) for the preparation of HIRDEP in the late 70's was very limited. The main source of quotable population figures was the 1971 census, which was by then considerably out of date. The Bureau of Census and Statistics was able to provide an estimate of the total population figure for the district as a whole as of 1977, based on the 1971 census figure and the statistics of births and deaths registered in the district. This update could not reflect any migration flows that may have occurred. By chance, the 1981 Census was to show that net migration during the intercensal period had been negligible — but this of course was not evident at the time of the preparations for HIRDEP.

The project also carried out various *ad hoc* surveys in Hambantota in 1977-78, but their quality was admittedly variable and some of these surveys were processed only recently in connection with a follow-up study conducted in the context of the present evaluation (see chapter 4). One survey consisted of comprehensive household interviews of 315 homes in 3 Grama Sevaka Divisions (i.e., "villages") of Beliatta; another survey covered "25-30 homes in 13 different villages in the western half of the district" (Axelsen et al. 1978: 2). There is very little demographic information in these sources; admittedly, "the broadness of [the authors'] approach did not allow [them] to deal in depth with any specific subject or sector". (Axelsen et al., *ibid.*). In their report, population matters are dealt with in the section "General information about the district", where the following points are mentioned (Axelsen et al., 1978:7-8):

- Total population 1971 census (341,005 inhabitants);

- Hambantota's share of the country's total population in 1971 (2.68 per cent);

- Area of the district (2,622 km^2), share of total area of the country (4 per cent) bringing out the contrast between share of population vs. share of area;

- Total population update for 1977 (375,000), which we find to be 5,000 lower than the official estimate;

- Population distribution within the district, bringing out the fact that the westernmost parts are densely populated ("reflecting an even distribution of low-lying areas suitable for paddy cultivation"), while in the rest of the district population is less dense and less evenly distributed ("largely because rice cultivation here is totally dependent on irrigation, and largely concentrated to major settlement schemes") and, in respect of the easternmost one-third of Hambantota district, which is very dry and sparsely populated, on account of the fact that ("most of this area has been set aside for a national park (Yala) and smaller nature reserves and is virtually uninhabited, as no agricultural activity is permitted in these parts").

- Growth of the population 1946-71, stressing that the "increase exceeded by far that for the nation as a whole". Regrettably, the authors failed to highlight that the higher growth rate in Hambantota relative to the country was particularly accentuated between 1953 and 1963 (when the population growth rate in Hambantota reached 3.7 per cent against 2.7 per cent for the country as a whole) and that it had been very much reduced in more recent years (the corresponding growth rates being 2.8 per cent against 2.3 per cent in 1963-71).

- "Some of this increase can be explained by migrations into the district from other areas." The authors note that in this period (i.e., between 1946 and 1971), most of the dry-zone districts experienced a population growth above the national average, much of which is accounted for by the many small and large settlement schemes initiated in the dry zone in this period.

- The ethnic and religious composition of the population is examined, noting that Hambantota is very homogeneous since the population was 96.2 per cent Low-Country Sinhalese and 97.2 per cent Buddhist.

This is all there is in the report in respect to population and demographic trends, apart from two or three passing remarks that revert to the theme of population density — to characterize some of the agricultural area types (id.:31) or to report that "domestic animals represent a problem for crop growers, especially in the more densely populated parts of the district" (id.:36) — or refer to the seasonal migration pattern of fisherman who move to the eastern part of the district during the south-west monsoon season (id.: 39.) Nothing in this suggests any particular awareness of the implications of what is after all a high rate of population growth; there is no mention of fertility and mortality levels; there is equally no mention of the increase in age at marriage, (which had been strong in Hambantota in the 60's, as revealed by the 1971 Census) and the way this trend possibly exacerbated the need for female employment; in fact, there is very little effort to quantify if not the size at least the scale of the problems and its projected growth over time, be it in the sphere of employment, education, health or other needs. What is more, there is no suggestion that such quantification would be specifically required or even appropriate for the purposes of HIRDEP. The base line surveys undertaken at the time were not designed to capture demographic variables, which means that even if the attitude is reversed now, the extent to which demographic trends can be established through re-surveys of the original communities is extremely limited.

3.2.2 A few years down the road

In spite of the accumulated experience of a few years of HIRDEP-implementation and the greater availability of population information (from the 1981 Census in particular), Michael York Smith's description of HIRDEP does not suggest any significant departure from the original attitude regarding demographic variables and concerns.

In Smith's view, the growth and distribution of the population of Hambantota are the two outstanding demographic features of the district.

Regarding growth it is noted that during the decade of the 70's population grew faster in Hambantota compared to the national average (25 per cent against 17 per cent). However, there is no analysis of the factors behind this result. Regarding geographic distribution Smith points out that people "are found in much greater concentration in the wetter, western

parts" and he shows that "there is a clear distinction between the four AGA divisions of the west where the density of rural population is between 300 and 450 persons per km and the central and eastern divisions where the densities are between 50 and 200 persons per km". Smith asserts that "this has important consequences for development potential in different parts of the District", but does not elaborate any further (instead he refers the reader to Chapter 6 of the HIRDEP 1984 Programme). Smith also notes that in the 70's both urban and rural areas of the eastern divisions grew much faster than those of the west, a feature that he explains in terms of land scarcity in the densely populated west and migration into the east, "where natural resources and government services are less, but at least there is land". Smith mentions that the population of the district is remarkably rural (10 per cent urban, with no town exceeding 10,000 people) and young (37 per cent under 15 years); Population aged 10-59, which is described as "the potential labour force of the district" is said to represent 68 per cent of the total population. These are, in substance, the contents of the section "Population".

The section on "Land Use" also touches upon demographic matters, although only lightly. Land use is said to be "a reflection of the physical features and the population distribution". Smith is particularly preoccupied with the changes occurring in the eastern part of the district "(...) where increasing migration is putting more and more pressure on available land. There is much less opportunity to carry out shifting cultivation (...)"; he thus believes that "there is very little land left for this form of cultivation and stabilized rainfed farming will have to be practised in the future".

In spite of the role that population density and thus "pressure on land" plays in Smith's view of Hambantota, there is no analytical treatment of population density in relation to land use. It interesting to note that he does not refer to the issue of coconut plantation in the context of the high population density zones of the western parts of Hambantota, as discussed in the ILO-ARTEP study on employment and income generation in agriculture (ILO-ARTEP 1984), known to Smith and quoted by him in reference to other issues. This study unwittingly shows the limitations of the concept of population density as an explanatory variable in Hambantota's socio-economic system. Coconut cultivation is a low yield, low labour-absorption crop, "which heavily underutilizes land in a situation where cultivable land is a scarce factor and unemployment and underemployment are major social problems". Yet, a closer look at land use reveals that "the three divisions carrying almost the entire extent of coconut are also the divisions with the highest densities of population and therefore the lowest amount of agricultural land per capita" (id.:24) . The reasons

why the response to increasing population pressure has been expansion of area under cultivation (eventually through migration to the eastern parts of the district) rather than through intensification of cultivation certainly requires an analytical approach deeper and less intuitive than the one used by Smith.

Smith notes that the urban infrastructure and settlement hierarchy in Hambantota are little developed, pointing out that "the three largest towns Ambalantota, Tangalle and Hambantota have less than 30,000 people altogether; Tissamaharama has about 6,500 but Beliatta and Walasmulla have less than 6,000 between them". Although he provides in appendix data showing the growth of urban and rural population by AGA-division (id.:64), he does not comment on the various trends that emerge from the data: two urban centres, Ambalantota and Tissamaharama grew faster than the overall population of the district (35.2 per cent and 47.2 per cent growth respectively in 1971-81, against 24.6 per cent for the district as a whole). Also the urban population in Hambantota grew steadily, at a rate similar to that of the district. These rates of growth are likely to strain the infrastructure of the respective urban areas, particularly in respect of water supply — something that should call for the attention of planners. However, in spite of the pains of growth of these urban areas, these AGA-divisions are not becoming more urbanised in terms of the share of the urban population in total population. Quite on the contrary: wherever the urban growth is vigorous, the rural growth is even more vigorous. Only Weeraketiya and Beliatta — very densely populated divisions with low overall population growth — do register an increase in the share of the urban population.

3.2.3 The present situation

Apart from the annual vital registration statistics (births and deaths, with specific figures for infant and maternal deaths) no new demographic data have been generated for Hambantota district since the 1981 Census. Although several demographic and related surveys have been conducted at the national level, the samples were too small to provide meaningful results at district level. Another factor behind the scarcity of new data that could be used by HIRDEP is that the agencies which conduct surveys in the district in many instances do not share their results with the Planning Unit — a case in point being the Nutrition Survey of 1989, conducted by the Nutrition Division of the Ministry of Plan Implementation.

Changes in the way HIRDEP treats population issues have thus been the result of a fresh look at old data, rather than the result of new information

being obtained. However, as the body of data from the 1981 Census gets increasingly outdated, the limitations of this "fresh look" approach also become increasingly obvious; in this respect, the situation is not very different from the one that prevailed at the inception of HIRDEP in 1979, when planners also had to rely on data almost one decade old.

As the Annual Programme for 1991 explicitly recognizes, the Planning unit does not have the knowledge nor the capability to develop overall district strategies (HIRDEP 1990:18). In our view, it is in the context of such district strategies that demographic considerations would assume full significance. However, the need to think strategically and for the longer term has been emerging under the pressure of a growing awareness of environmental issues. It is now seen that populist policies of promoting self employment and small co-operatives clearly have limited scope, especially in the low population density areas (id.:25). Many of the environmental issues identified by HIRDEP have a direct of indirect demographic bearing, in so far as they relate to past patterns of growth and migration, or set the stage (and the limits) for future demographic trends: increase in the number of cases of malaria due to irrigation schemes; limited proportion of the ground water reserves that are useable to sustain a growing population; deterioration of the urban environment; deforestation and fuel wood shortage; concerns about the health effects of pesticides and fertilizers in irrigated paddy lands; sustainability of the green revolution technology in the face of increased salinization of paddy lands, etc. (id.:96-97).

The Environmental Study (McCall (ed.), 1990) that most visibly embodies the growing concern with the environment is not entirely convincing in its treatment of demographic factors. It asserts that "environment degradation cannot be blamed on a demographic explosion of the poor stripping local resources. More resources, proportionately and in total, are consumed by the rural well-off and the urban population" (id.:2). At the same time, it diagnoses that "the environmental issues are ultimately determined by poverty" and ends up with the most improbable suggestion that "any identifiable environment problem could be resolved by transfer of resources from rich to poor" (id.:1). In spite of this, consideration is given to demographic factors; with the limited data and expertise available, rudimentary population projections for the medium term are shown by agro-ecological area; migration movements are described as interconnecting the problems of the wet and dry zones. And, although the document emphasizes HIRDEP's traditional distrust of macro-perspectives — emphasizing that it is not "a blue-print which presumes that planners know not only the "right goal" but the best steps to achieve it — in the end it recognizes that strategic guidelines for the conservation, enhancement and

utilisation of the physical environment in Hambantota will need to be developed". Obviously, such a task would offer excellent opportunities to rethink the role of population change in relation to ecology and development.

An important development in the administrative context of rural development planning has been the introduction of AGA-level planning, based on the methodology of integrated area development and participatory planning. The objectives are similar to those of HIRDEP: improvement of the living standards of the poor, through the creation of assets, improvement of the utilisation of resources and potentials and provision of facilities and social services to the community, benefitting the target group as well as others. Like district level planning, AGA-level planning supports projects in a large number of sectors, covering practically every sphere of activity that could be of interest to social life in any given AGA-division (the planning documents mention 24 types of activities, including project management, local surveys, settlement projects, agricultural, forestry and fishery development, environmental activities, cottage and small industries projects, women-in-development activities, health, nutrition and family planning services, child care centres, etc).

Although we do not see much scope for the introduction of demographic variables in the planning for very low geographical levels, we note that among the proposed activities there is the collection of data at village (i.e., Grama Sevaka) level on needs, existing resources, potentials, rural level organizations and constraints. This could provide an institutional basis for in-depth observation of socio-demographic trends as well as qualitative research at micro-level — which subsequently could be useful for planning at higher geographical levels. In the meanwhile, HIRDEP has been instrumental in producing AGA-division level statistical profiles which purport to describe the "resources, needs and economic activities" of the 8 AGA-divisions existing in 1988. Our review of these documents (available in Sinhala only) suggests that the treatment of the demographic data is not particularly innovative; nevertheless, our interviews with Project Implementation Officers at AGA-division level lead us to believe that these documents are actually used for the formulation of projects. Therefore we see the efforts to compile, analyze and disseminate statistical data at the AGA-level — like anything else that might strengthen the technical basis of the planning process — as steps towards greater attention being paid also to demographic variables and trends.

Among the documents used to assess the current level of integration of population variables in the planning process, we reviewed with great interest the project document for a 3-year Health Plan (1991-93), which was

available in draft during the mission's visit to Hambantota. Our interest was motivated by the fact that planning for the health sector (including MCH-FP activities) is one of the areas where demographic considerations are of the greatest relevance, as health needs tend to be very age/sex specific. However, it appeared that the project document treats population data in the same descriptive, stereotyped way of the Annual Programmes. Demographic health indicators (death rates, life expectancy, etc) are conspicuously absent, as are population projections — except for a very unsatisfactory attempt to update the population figures by age and sex up to mid-1988. Although this exercise was supposedly based on a total population estimate of 495,000, to which the age/sex structure observed at the 1981 Census was applied, we were not able to replicate the results shown in the document. Besides, a look at the age-specific sex ratios reveals a pattern so much at variance with what has been observed in the Census that one is not inclined to trust any of the figures in this updating exercise. But, more important still, nowhere in the document is there an attempt to translate these demographic figures into indications of the magnitude of specific health needs.

As to population activities, the project document recognizes Family Planning as one of the 17 areas of the National Health Programme and also as one of the 13 service components of the "Essential Health Package" expected to be provided through the Gramodaya Health Centres. Family planning is not specifically mentioned in the project's health education activities, but it appears listed among the functions of Health Volunteers, with the following tasks: "to detect families in need of FP; to identify eligible couples; to detect dissatisfactions; to identify possible acceptors; to identify possible promoters; to recognize the resistant", a list that suggests an old-fashioned style of family planning activities driven by programme targets, rather than an integrated MCH-FP strategy.

Given the assumed importance of demographic data for health development planning, the mission devoted considerable effort to assess the strength of planning activities in the health sector at the district level, interviewing cadres at different levels from Family Health Workers in Village Health Centres to Regional Director. As it has been recognized previously by evaluators looking specifically into problems of the health sector, Hambantota district suffers from high vacancy rates throughout its health administration, which affects the quality of data collection, processing and analysis and the corresponding planning capacity. In Hambantota MOH-division, out of 10 PHI posts, 5 are vacant. In Tissamaharama, constituted as a separate MOH division in September 1990, there was still no MOH in position by January 1991; the functions of MOH are performed by a Senior PHI based in Hambantota, who is also acting

MOH for Hambantota. In the Regional Director's office, a clerk has the duties of Planning Officer. The position of MO (MCH) in Hambantota district is also vacant, and the duties that go with it, including the compilation of service statistics for FP activities in the district are discharged by the MO (MCH) in Matara. Although first-line health workers such as the Public Health Midwives and the Public Health Inspectors appear to spend a considerable proportion of their time preparing reports which may include a good deal of population relevant data, very little of this seems to benefit the local planning process directly or indirectly.

The *1990 Annual District Health Plan for Hambantota*, seen in abbreviated translation, contains very much the same type of data normally found in HIRDEP's annual programmes. Under the heading "Health Status Indicators" only typical demographic data (crude birth rate, crude death rate, infant mortality rate, maternal mortality rate) from vital registration are shown, suggesting that the health system itself is unable to produce other figures of its own, related to sickness, nutrition and sanitary conditions. Later on in the document one finds some rates of achievement in relation to target figures for several health activities (registration of families eligible for service provision, number of pregnant mothers registered before 4 months, percentage of births registered, percentage of births attended by trained personnel), but the basis for these calculations is neither explained nor evident. For instance, the number of births that is used here to calculate the completeness of registration by the health system coincides with the figure from the District Registrar's Office shown earlier for 1987, but neither for 1986 nor for 1988; similar discrepancies arise in relation to the number of infant deaths. This is the closest one can get to using population data to assess the output of a planning sector, but the outcome of the exercise unfortunately is far from convincing. As the Plan candidly recognizes, "The Planning Cell in the Regional Director of Health Services Office has not the proper capacity to handle the planning for the district. The necessary data and statistics had not been promptly obtained and kept for this purpose" (1990 Health Plan, p. 8). One would also assume that, in addition to the lack of data, there is also for the time being a considerable lack of methodological expertise on how such data, if available, could be used for planning.

4. The demographic impact of HIRDEP

4.1 The framework: direct and indirect impact

The Agreement between Norway and Sri Lanka (30 October 1979) marking the start of the integrated rural development programme in Hambantota states that "the programme aims at achieving an increase in income, employment and production as well as improvement of social conditions and living standards of the men, women and children of the Hambantota district, with special emphasis on the poorest groups". There is no demographic agenda in this formulation — no explicit expectation that the programme would contribute to modify demographic behaviour, be it fertility, mortality and migration, or even in more general terms that it would change the rate of population growth. Yet, is it likely that HIRDEP might have had an impact on the course of demographic events in Hambantota?

The sectoral spread of HIRDEP encompasses no less than 15 substantive sectors (in addition to a sector called "Project Coordination"): Machinery and equipment; water; forestry; fisheries; irrigation; settlement and community development; roads; agriculture; industry; health; community and social service; education; conservation and wildlife; energy and post and telecommunications. On the basis of this very broad multi-sectoral scope — and prior to any analysis of the actual contents of these labels — one is drawn to think that some of it must make a difference in matters of life and death (and migration, as well...) for the people of the district, either directly or indirectly.

The direct demographic effects of a development programme are those that result from project activities bearing specifically on the fundamental demographic variables, i.e., fertility, mortality and migration. Basically this would concern, on the one hand, health projects (including nutrition and family planning), which contribute to reduce fertility and mortality; and, on the other hand, settlement projects which specifically purport to generate a certain amount of migration. Indirect effects are those that result from the impact of project activities on socio-economic variables which are known to determine demographic behaviour. For instance, it has often been shown that more educated women tend to marry later, have lower fertility and are less likely to lose their children to infant and child mortality. National level

studies confirm that this relationship between education and demographic behaviour holds true for Sri Lanka: the 1981 Census showed that women who had 6-10 years of education had a total fertility rate (TFR) on average about one child lower than those with 0-5 years of education, and those with 11 years and more of education had a TFR again about one child lower than those with 6-10 years of education (Ratnayake et al, 1984:23). The Demographic and Health Survey of 1987 found that the infant mortality rate among children borne to mothers with no education was two and a half times higher than the rate among children born to mothers with more than secondary education (Sri Lanka, 1988:97). Thus any project that actually promotes the education of women may be reasonably expected to have also an indirect, long term impact on nuptiality and fertility patterns, as well as on infant and child mortality levels. Apart from education, several other socio-economic variables such has income levels, employment, urbanization, access to transportation and communications are also thought to influence demographic behaviour, although their degree of significance may vary greatly from one society to another. Generally speaking, projects that contribute to the modernization and the increased prosperity of the society may be expected to contribute also to demographic change, by creating different norms and aspirations regarding the role of women, the timing and stability of marriages, desired family size, knowledge of and access to family planning, care for children, entitlements to food and other forms of social security in times of crisis, etc. which in turn determine fertility and mortality levels. There are, however, certain areas of uncertainty in these linkages, and that makes empirical research something more than simple verification of well established truths; one of these areas of uncertainty is how families adapt their fertility behaviour when they become beneficiaries of a settlement programme and thus are suddenly in possession of a viable farm which requires family labour — is it enough to reverse the trend towards a lower economic value of children?

Table 4.1
Demographic considerations in the presentation of individual projects, Status and Completion Report 1989

	Project reported	Population-related considerations
369	District training programme	None
248	Water supply to fishing villages	None
361	Piped water to Bundala, etc.	None
377	Dug wells IV	None
378(?)	Tube wells VI and VII	None
348	Reforestation IV and V	None
242	Removal of harbour obstacles I	None
313	Removal of harbour obstacles II	None
373	Removal of harbour obstacles III	None
340	Quarters for fisheries extension staff	None
358	Kirinda settlement scheme for fishermen	50 fishing families; 30 women from these families trained for 6 months at Coir Training Centre
360	Improvements to ice plant Hambantota	None
367	Support to fisheries co-operative society	None
379	Field training programme for fishermen III	180 fishermen
381	Inland fisheries development	430 fishermen, 15 pond farmers
390A	Provision of credit facilities to fishermen	None
390B	Seed money for fisheries co-operative society	None
392	Renovation of ice plant, Tangalle Harbour	None
351	Ongal Ara irrigation scheme	None
388	Western tank rehabilitation III	56 land owners, 53 land owners cum tenant farmers and 141 tenant farmers
212	Mattala Settlement Cluster	410 farm families
218	Weliwewa Settlement Cluster	307 settlers (proposed)
240	Gonnoruwa settlement cluster	256 farm families
311	Mala Aluthgamara settlement scheme	400 farm families
317	Hambantota AGA-level development planning	None

	Project reported	Population-related considerations
362	Improvements to settlement houses	925 settlers (same as projects 212+218+240)
366	Weeraketiya AGA-level development planning	None
372	Katuwana AGA-level devleopment planning	None
374	Strengthening of thrift and credit societies	212 people given loans for self-employment
375	Social mobilization II	1488 families engaged in group activities
387	Pilot project for women, phase II	100 women trained & given loans
330	Access roads, Gonnoruwa	202 farm families, 1200 people
343	Bridges at Kirama, Bundala, etc.	None
344	Road - phase II	None
364	Construction of gravel roads I	None
376	Rural roads IV	None
226	Coconut cultivation board, phase II	None
267	Livestock development I	None
278	Strengthening of agrarian services	None
291	Minor export crops, institutional improvement	None
297	Horticulture - Middeniya farm	500 farm families
319	Amarawewa grazing land	None
352	Rainfed upland farming	800 farmers (status)
365	Water management, phase II	408 farmer received training 262 received loands (status)
327	Export production, Seenimodara	490 members
337	Handloom industry	None
371	Vocational training	60 youth trained
n.a.	Training of family health workers	100 women trained
314	Hambantota hospital	None
357	Primary health care, Hambantota	None
378(?)	Primary health care, Tangalle	None
382	Sanitary facilities IV	4,000 beneficiaries
329	Educational facilities, Mattala, Weliwewa and Gonnoruwa	None (settlements)
350	Development of education	None
393	Quality improvement in education	None
349	Fuelwood-efficient stoves II	56,981 stoves

	Project reported	Population-related considerations
389	Solar beacons for fish landing centres	None
385	Caretaker house for circuit bungalow	None
384	Extension of HIRDEP office	None
341	Provision of micro-computer facilities to HIRDEP	None
353	Residential quarters III	None
315	Katuwana water supply scheme	None
359	Field training for fishermen II	180 fishermen
n.a.	Field training for fishermen I	203 fishermen
363	Regularization of encroachments, Katuwana	6,202 permit holders and 7,407 encroachers

4.2 Present obstacles to the assessment of the demographic impact of HIRDEP

In order to assess the demographic impact of a development programme one would normally work from both ends of the cause-effect relationship, trying to link up the observed changes in demographic variables to those components of the programme's output that would seem to have a bearing on demographic behaviour. This strategy would be quite straightforward with respect to the assessment of direct effects, but naturally less so in the case of indirect effects: obviously there are many aspects of the socio-economic and cultural dynamics of a district like Hambantota that have nothing to do with HIRDEP — some result from the activities of other agencies such as the District Development Council or the Southern Provincial Council while some may not even be traced back to any specific agency or programme; therefore it is reasonable to expect that not all demographic change could be credited, even indirectly, to HIRDEP. In other words, it would be necessary to draw borderlines between socio-economic development generated by HIRDEP and socio-economic development non-generated by HIRDEP — with all the subjectivity and uncertainty of such an exercise.

However, the reader familiar with the current situation in Hambantota as far as demographic data are concerned (see chapter 2), will know that — save for the vital registration figures which are difficult to accept at face value — there is simply no statistical basis on which one could establish what has happened to demographic behaviour in Hambantota during the 1980s: there are no fertility rates, no figures of life expectancy, no estimate of mean age at marriage, no migration data; indeed, there is not even a

basic statistic of total population by AGA, according to the current administrative set up of the district.

At the other end, identifying what has been the demographically relevant part of the output of HIRDEP is a difficult task. HIRDEP has traditionally had a defensive posture in relation to a monitoring of its developmental impact that would be quantitative but yet go beyond their routine data on physical and financial output. In his description of HIRDEP, one of the senior planners recognized that "actual benefits are hard to evaluate in concrete terms, especially by numbers and amounts" (Smith, 1985:29), deploring that "unfortunately it is only numerical evaluation that impresses most people and qualitative judgements are valued less" (id.:30). Although it was then hoped that certain new arrangements would facilitate making a better analysis of the degree of benefit and the broader impact of HIRDEP on communities in the district, the reader was cautioned that "(...) we have to beware of spending too much time and money on trying to find out, when we would be better occupied creating benefits. One important lesson to learn from the programme so far is that you can learn most by doing, and money spent on elaborate studies is often wasted" (ibid.). There can hardly be any doubt that from the point of view of HIRDEP — as it operated for most of the past decade — research on the socio-economic dynamics of demographic behaviour would fall squarely into the category of "elaborate studies": that lack of interest for the demographic perspective is obvious from the observation that demographic considerations of any kind, including the most basic information about the number of beneficiaries is absent from the presentation of many HIRDEP projects in the Status and Completion reports (see table 4.1).

We suppose that a study of the background documentation for the individual projects would yield more detailed quantitative information, including perhaps some data of demographic nature. There have been a number of project evaluations in which one could possibly glean some relevant information — accepting the fact that such sources did not have a demographic focus, had an inadequate time-frame and would need considerable doctoring in order to extract the required data. For instance, a team of Norwegian nutritionists, summarizing the findings of their study of two HIRDEP projects in Kirama Oya which focused on raising the productivity of paddy cultivation (Holmboe-Ottesen et al, 1989), report that "the general nutrition status improved significantly from 1982 to 1984, with general malnutrition declining from 31.4 per cent to 24.8 per cent. A slight decline could also be detected in the prevalence of chronic malnutrition, but this change was not significant".

However, an analysis of the indirect impact of HIRDEP on the demography of the district at the level of individual projects would have been well beyond the scope of the present analysis. Besides, it is likely that the analysis of demographic phenomena at the level of the populations concerned by individual projects would prove disappointing, simply because in such small populations circumstantial conditions and random variations from year to year tend to make such analyses meaningless.

4.3 Possibilities and limits of follow-up studies

Some of the part-studies that compose the present evaluation of HIRDEP will probably for the first time present an assessment of the output of HIRDEP and of the socio-economic trends in the district, in a format that could be useful for initiating a discussion of socio-economic development and demographic change in Hambantota. We have reviewed with particular interest the part-study called "Follow-up of the baseline studies" undertaken by D. Atapattu (Atapattu, 1991) which seems to be a good illustration of the possibilities and limits of this type of approach in the circumstances of HIRDEP. His study purported to assess and possibly quantify the changes that have taken place in a) household income levels; b) rate and distribution of employment; c) production levels in key sectors; d) social service provision, coverage and accessibility; e) health, nutrition, housing, energy consumption, education and other living standard indicators; f) size of population and other demographic factors; and to ascertain to what extent these changes can be attributed to project interventions and investments under HIRDEP. Five areas (Kirama Oya Basin, Weliwewa, Bedigama, Kudawella and Katuwana) which had been the object of base-line surveys in 1979/80 (1982 in the case of Katuwana) were re-surveyed in 1990, on the basis of samples varying from 50 households in Weliwewa to 238 households in Kirama Oya Basin. In table 4.2 we have summarized the results of the follow-up analysis, to evidence the correlation between demographic change and socio-economic progress.

As it appears, for two out of the five areas there is no baseline demographic data at all; for the three others, the only data is a rough age and sex structure (in the case of Kudawella also an estimate of the average size of the households). There are no health indicators whatsoever nor any indices of accessibility of health services. The study shows that there has been a decline in the number of young children; in two out of the three areas where demographic change is documented, there have also been dramatic declines in the ratio of children under 5 to women aged 15-55, a strong indication that the transformation of the age structure has to do with

a decline of fertility; in the third case, the situation is not so clear cut since we have a slight decline of the population under 15, together with an equally slight increase in the Children/Women ratio. As an example of social change not creditable to HIRDEP, one can mention the quite extraordinary increases in the proportion of GEC holders — HIRDEP interventions in education have been limited to primary education. But how does that trend fit with the employment prospects of a population that is not only predominantly but also increasingly involved in fisheries?

Table 4.2
Demographic change and socio-economic correlates
in 5 areas of Hambantota

Indicators	Areas resurveyed and number of households in 1990 sample:				
	Kirama Oya (238)	Kudawella (158)	Weliwewa (50)	Bedigama (102)	Katuwana (145)
% under 15	n.a.	36% → 17%	45% → 39%	33% → 28%	n.a.
C/W ratio*	n.a.	39 → 14	52 → 19	27 → 30	n.a.
Household size	n.a.	6.4 → 5.8	n.a.	n.a.	n.a.
Education % > GEC 0**	n.a	11% → 46%	4% → 69%	11% → 41%	n.a.
Health	n.a.	n.a.	n.a.	n.a.	n.a.
Housing standards:					
brick walls:	72% → 74%	71% → 83%	27% → 92%	35% → 53%	23% → 61%
toilet/latrine:	n.a. → 100%?	33% → 79%	45% → 100%	36% → 99%	93% → 96%
tiled roof:	n.a.	59% → 67%	23% → 58%	36% → 60%	33% → 59%
electricity:	n.a. → 22%	22% → 59%	0% → 0%	n.a.	5% → 21%
tap water:	n.a.	0% → 13%	0% → 0%	n.a.	3% → 17%
Income and living standards	n.a.	sharp rise of expenditure on food increase in possession of durable goods	increase in possession of durable goods	proportion w/ annual income > Rs 19,200: 7% → 40%	n.a.
Media exposure	n.a.	1 radio per household in 1990	possession of radio: 70% → 100% poss. of TV: 0% → 50%	n.a.	n.a.
Employment	Decline of agric. sector; increase in off-farm and public sector employment	fishing: 80% → 85% of employed males	shift from chena to paddy cultivation; 21% of heads of households are govt. employees in 1990	high open unemployment few off-farm jobs	decline of agricultural employment decline of unemployment

* Children 0-4 per 100 women 15-54 ** recalculated in percent of population age 15 and over.
Source: adapted/calculated from Atapattu, 1991:various tables.

The analysis of the linkages between socio-economic development and demographic change in Hambantota would deserve to be taken up again when the results of the new census become available. At present, there is simply *too little data* to answer all the questions raised by the present study; we believe that a more in-depth analysis of the socio-demographic trends in Hambantota would be in order on the basis of a more adequate body of data and that it would represent an important contribution by HIRDEP to the understanding of the of the long term conditions for sustainable socio-economic development.

5. Conclusions and recommendations

5.1 Conclusions

The demographic study had three objectives: 1) to review the demographic situation and prospects of Hambantota district; 2) to assess how demographic variables and concerns were taken into account by the HIRDEP planning process; and 3) to assess the impact of HIRDEP as a development programme on the demographic features of the district. We shall summarize here our findings in relation to these three objectives and make some recommendations for strengthening and improving HIRDEP's performance in this area.

5.1.1 The demographic situation and prospects

The district is undergoing an important process of change in the various aspects of its demographic profile, including fertility, mortality, marriage patterns, population distribution and occupational structure. In general, the pattern of demographic change brings the district more in line with national averages. One of the salient results of this process of change is the transformation of the age structure of the population: After several decades of rapid population growth, the decline of fertility will finally start to "pay off" during the 1990s in the form of smaller cohorts of children of primary school age. This demographic dividend, in terms of less pressure on the primary school system, should be put to use to bring the school attendance rates in Hambantota more at par with the national level, particularly for females. However, increasing demographic pressure will continue to be felt in other areas of social life, particularly employment, retirement and care for the elderly as the larger cohorts born after World War II enter the late stages of their life-cycle. Demographic change is accompanied by sociological change, giving way to new forms of social crisis, well illustrated by the staggering proportions of young women who, through the combined results of longer education and higher age at marriage, expect to work, must work and yet may find no jobs and have to be considered as unemployed. Other areas of tension will likely emerge from the rapid growth of some of the urban centres of Hambantota, as well as the

continued higher rates of population growth in the eastern parts of the district.

5.1.2 Population variables in the HIRDEP planning process

In order to assess how population variables have been taken into account in the HIRDEP planning process we reviewed key documents from different phases of the history of HIRDEP, supplemented by interviews with staff from the Hambantota Planning Unit and from the local level agencies of various ministries.

These reviews show that there is a general awareness of the importance of certain demographic features of the district such as population size, growth and density. These features are given a prominent place in the introductory chapters of Annual Programmes and other planning documents; however, such information is of descriptive rather than operational value. In that sense, population appears to be taken into account very much in the same way as geographic features of the district also are discussed, i.e. as important elements of HIRDEPs backdrop, rather then as interactive variables shaping the development process and responding to it. Interviews with staff also revealed acceptance of the general notion that "population is important", but the analytical and operational content of such statements appeared to be weak. We noted with interest that HIRDEP has produced AGA-division statistical reference works ("AGA-division statistical profiles") which have proven useful to strengthen the statistical basis of the planning process; however, their treatment of population issues cannot be said to represent any innovation.

In previous chapters we have discussed the different reasons why population variables seem to have received a rather superficial treatment in the context of HIRDEP. The review of the documentation suggests that the most important of these reasons is possibly HIRDEP's emphasis on plan implementation, as opposed to planning strategy, and HIRDEPs preference for an approach that is short-term, small scale, "incremental" and promotes popular participation. This is shown to provide an unfavourable planning context for population concerns, since these are typically best addressed as long term, large scale issues and may thus not be necessarily perceived in their full implications at "grassroots" level.

One significant development in recent years has been the growing concern with environmental issues in the context of regional development planning, as illustrated by HIRDEPs Environmental Study. These environmental concerns have introduced the notion that planning should help the present generation to assume its responsibilities in relation to the

needs of future generations, thus bringing the long term perspective more to the fore. We consider that the recognition of the need to develop strategic guidelines for the conservation, enhancement and utilisation of the physical environment is likely to pave the way for more attention being paid to long term population processes.

5.1.3 Assessment of the impact of HIRDEP

The impact of an integrated rural development programme such as HIRDEP upon the local demographic situation can be of two types: direct impact on birth and death rates through projects relating to health (including reproductive health/family planning) and sanitation projects, as well as direct impact on migration through settlement projects; and indirect impact on demographic behaviour generally through projects that promote social change (income generation, education, transport and communication, etc.)

The portfolio of projects in HIRDEP is likely to have had both types of demographic impact, and the team considered two strategies to assess them: direct assessment based on data from the monitoring of project implementation and indirect measurement based on data that show the general socio-demographic trends in the district.

However, we have found that the task of measuring the demographic impact of HIRDEP poses at present unsurmountable problems. Comprehensive quantitative monitoring has traditionally not been given great priority in HIRDEP, and the baseline surveys that were undertaken in connection with the start of various projects did not focus on demographic variables. This makes it difficult to introduce a demographic agenda in the re-surveys that are currently being carried out. At best what we have is an estimate of the number of beneficiaries of the various projects, but the figures are vague and not strictly additive since several projects have been designed to benefit the same community more than once.

Also an indirect assessment strategy that would credit HIRDEP for a certain portion of the demographic change in the district — as measured by general sources like censuses and surveys — is at the present moment hampered by the fact that there has been no census or demographic survey capable of yielding district estimates since 1981. The best that can be hoped for, in the short term, is to have a new census carried out as soon as possible.

However, one can surmise, in very general terms, that the contribution of HIRDEP to the socio-economic modernization of the district must have favoured the type of demographic change that one would expect to observe in modernizing societies in general: lower fertility and mortality, higher age

at marriage, increased emphasis on alternative roles for women, creating high levels of labour force participation (whether employed or unemployed looking for work) particularly among girls during those 10 years or so between the end of school and the beginning of married life, etc.

5.2 Recommendations

Planners in Hambantota are aware of the importance of demographic dynamics, but the present study suggests there is need to increase the analytical scope of that awareness, highlighting the inter-relationships between development and demographic behaviour, both in strategic and operational terms. The need for this may be expected to be increasingly felt as the planning process becomes more sensitive to long term concerns, such as those of environmental nature. As soon as the results of the next census are available, a study should be undertaken to establish the socio-demographic trends in the district after 1981, to examine their implications and prepare revised and more detailed population projections at the District and AGA-division levels.

This study confirms in respect to population related data the observation that has often been made, that there is need to improve all aspects of data collection, processing and analysis at district level for planning purposes, not only in the context of HIRDEP but also in that of the operations of line ministries such as health and education. Work towards this end should start with a systematic inventory of the statistical resources for planning in the district: who is collecting what sort of data, contents, periodicity and quality of the figures. It is also suggested that HIRDEP should consider designing training programmes to familiarize the appropriate categories of staff in local administration with the analysis and use of statistics, as a means to improve the level of "numeracy" of the administration and the quality of the data that it produces.

Many aspects of the inter-relationship between socio-economic change and demographic behaviour are of qualitative nature, and cannot be properly dealt with as a sub-product of routine administrative operations. Demographic processes, to be meaningfully analyzed, often need to be captured in the context of a household's strategies. In depth, qualitative studies are thus required — a need that should ideally be met by local academic institutions. Ruhuna University should be encouraged by HIRDEP, perhaps with the additional donor support, to become more involved in monitoring socio-economic and demographic change in its hinterland. We recommend that a set of research themes of relevance to both HIRDEP and Ruhuna University should be identified and an inventory

of the human resources at Ruhuna University that could be mobilized for the purpose should be undertaken, as first steps towards the establishment of a formal long-term programme of co-operation and technical assistance by Ruhuna University to HIRDEP.

Statistical appendix

Table A1
Occupational structure by age and sex, Hambantota, 1971 and 1981

Males 1971

Age	Employed	%	U.ployed*	%	*U.rate***	Students	%	Others	%	Total	%
10-14	732	3	408	2	*36*	16916	67	7043	28	25099	100
15-19	6861	33	3452	17	*33*	5380	26	4828	24	20521	100
20-24	11305	68	3720	22	*25*	749	5	846	5	16620	100
25-29	8844	86	1125	11	*11*	0	0	262	3	10231	100
30-34	7268	93	357	5	*5*	0	0	174	2	7799	100
35-39	8768	96	193	2	*2*	0	0	220	2	9181	100
40-44	7816	96	136	2	*2*	0	0	224	3	8176	100
45-49	6721	95	80	1	*1*	0	0	257	4	7058	100
50-54	5148	94	64	1	*1*	0	0	290	5	5502	100
55-59	3853	89	40	1	*1*	0	0	442	10	4335	100
60-64	2798	81	30	1	*1*	0	0	623	18	3451	100
65-69	1960	73	24	1	*1*	0	0	703	26	2687	100
70-74	1249	56	20	1	*2*	0	0	942	43	2211	100
75 +	596	28	12	1	*2*	0	0	1528	72	2136	100
10 +	73919	59	9661	8	*12*	23045	18	18382	15	125007	100

Females 1971

Age	Employed	%	U.ployed*	%	*U.rate***	Students	%	Others	%	Total	%
10-14	311	1	222	1	*42*	15360	66	7471	32	23364	100
15-19	1827	9	1984	10	*52*	5690	28	10807	53	20308	100
20-24	2287	14	3001	19	*57*	759	5	10084	63	16131	100
25-29	1491	15	1022	10	*41*	0	0	7360	75	9873	100
30-34	1319	18	362	5	*22*	0	0	5818	78	7499	100
35-39	1827	19	206	2	*10*	0	0	7526	79	9559	100
40-44	1466	20	138	2	*9*	0	0	5801	78	7405	100
45-49	1170	20	95	2	*8*	0	0	4708	79	5973	100
50-54	847	18	65	1	*7*	0	0	3705	80	4617	100
55-59	426	14	44	1	*9*	0	0	2650	85	3120	100
60-64	302	11	31	1	*9*	0	0	2365	88	2698	100
65-69	171	8	26	1	*13*	0	0	2024	91	2221	100
70-74	82	5	18	1	*18*	0	0	1688	94	1788	100
75 +	39	2	15	1	*28*	0	0	2262	98	2316	100
10 +	13565	12	7229	6	*35*	21809	19	74269	64	116872	100

Males 1981

Age	Employed	%	U.ployed*	%	*U.rate***	Students	%	Others	%	Total	%
10-14	484	2	842	3	*63*	21163	84	2575	10	25064	100
15-19	5498	23	4118	17	*43*	9508	40	4876	20	24000	100
20-24	12393	54	5366	23	*30*	2230	10	3091	13	23080	100
25-29	14770	76	2477	13	*14*	488	3	1574	8	19309	100
30-34	13443	88	963	6	*7*	2	0	915	6	15323	100
35-39	8915	91	351	4	*4*	2	0	501	5	9769	100
40-44	7733	92	183	2	*2*	0	0	517	6	8433	100
45-49	7863	93	118	1	*1*	1	0	474	6	8456	100
50-54	6991	90	90	1	*1*	0	0	684	9	7765	100
55-59	4811	84	54	1	*1*	1	0	864	15	5730	100
60-64	3666	72	43	1	*1*	0	0	1349	27	5058	100
65-69	2152	62	19	1	*1*	0	0	1302	37	3473	100
70-74	1192	48	16	1	*1*	0	0	1298	52	2506	100
75 +	842	26	27	1	*3*	2	0	2378	73	3249	100
10 +	90753	56	14667	9	*14*	33397	21	22398	14	161215	100

Females 1981

Age	Employed	%	U.ployed*	%	*U.rate***	Students	%	Others	%	Total	%
10-14	150	1	192	1	*56*	21257	86	3016	12	24615	100
15-19	828	4	2071	9	*71*	10804	47	9496	41	23199	100
20-24	1686	8	4150	19	*71*	2827	13	13656	61	22319	100
25-29	2240	12	3080	16	*58*	440	2	13375	70	19135	100
30-34	2062	14	1445	10	*41*	0	0	11034	76	14541	100
35-39	1594	17	484	5	*23*	1	0	7342	78	9421	100
40-44	1405	17	176	2	*11*	0	0	6688	81	8269	100
45-49	1422	17	109	1	*7*	0	0	6936	82	8467	100
50-54	1022	15	62	1	*6*	0	0	5862	84	6946	100
55-59	644	12	24	0	*4*	0	0	4514	87	5182	100
60-64	337	9	11	0	*3*	1	0	3433	91	3782	100
65-69	212	7	6	0	*3*	0	0	2625	92	2843	100
70-74	94	5	5	0	*5*	2	0	1934	95	2035	100
75 +	46	1	10	0	*18*	4	0	3017	98	3077	100
10 +	13742	9	11825	8	*46*	35336	23	92928	60	153831	100

Notes * and ** see page 68.

Notes to Table A1

*Are counted as unemployed those who declared to have sought work during the last 30 days as well as those males who, not being employed, students, retirees or unable to work, declared that they did not seek work specifically because they thought that no work was available. Females in the same circumstances who were not seeking work have not been considered as unemployed, as long as they declared to be engaged in "own housework".

** The unemployment rate is defined as the proportion of the unemployed in the economically active population, which comprises the "employed" and those considered as unemployed, to the exclusion of "students" and "others".

Table A2

Growth of the different occupational categories in Hambantota 1971-81

Males

	Employed				Unemployed				Students				Others			
Age	1971	1981	Diff.	%	1971	1981	Diff.	%	1971	1981	Diff.	%	1971	1981	Diff.	%
10-14	732	484	-248	-34	408	842	434	106	16916	21163	4247	25	7043	2575	-4468	-63
15-19	6861	5498	-1363	-20	3452	4118	666	19	5380	9508	4128	77	4828	4876	48	1
20-24	11305	12393	1088	10	3720	5366	1646	44	749	2230	1481	198	846	3091	2245	265
25-29	8844	14770	5926	67	1125	2477	1352	120	0	488	488	n.a.	262	1574	1312	501
30-34	7268	13443	6175	85	357	963	606	170	0	2	2	n.a.	174	915	741	426
35-39	8768	8915	147	2	193	351	158	82	0	2	2	n.a.	220	501	281	128
40-44	7816	7733	-83	-1	136	183	47	35	0	0	0	n.a.	224	517	293	131
45-49	6721	7863	1142	17	80	118	38	48	0	1	1	n.a.	257	474	217	84
50-54	5148	6991	1843	36	64	90	26	41	0	0	0	n.a.	290	684	394	136
55-59	3853	4811	958	25	40	54	14	35	0	1	1	n.a.	442	864	422	95
60-64	2798	3666	868	31	30	43	13	43	0	0	0	n.a.	623	1349	726	117
65-69	1960	2152	192	10	24	19	-5	-21	0	0	0	n.a.	703	1302	599	85
70-74	1249	1192	-57	-5	20	16	-4	-20	0	0	0	n.a.	942	1298	356	38
75 +	596	842	246	41	12	27	15	125	0	2	2	n.a.	1528	2378	850	56
10 +	73919	90753	16834	23	9661	14667	5006	52	23045	33397	10352	45	18382	22398	4016	22

Females

	----------Employed----------				----------Unemployed----------				----------Students----------				----------Others----------			
Age	1971	1981	Diff.	%	1971	1981	Diff.	%	1971	1981	Diff.	%	1971	1981	Diff.	%
10-14	311	150	-161	-52	222	192	-30	-14	15360	21257	5897	38	7471	3016	-4455	-60
15-19	1827	828	-999	-55	1984	2071	87	4	5690	10804	5114	90	10807	9496	-1311	-12
20-24	2287	1686	-601	-26	3001	4150	1149	38	759	2827	2068	272	10084	13656	3572	35
25-29	1491	2240	749	50	1022	3080	2058	201	0	440	440	n.a.	7360	13375	6015	82
30-34	1319	2062	743	56	362	1445	1083	299	0	0	0	n.a.	5818	11034	5216	90
35-39	1827	1594	-233	-13	206	484	278	135	0	1	1	n.a.	7526	7342	-184	-2
40-44	1466	1405	-61	-4	138	176	38	28	0	0	0	n.a.	5801	6688	887	15
45-49	1170	1422	252	22	95	109	14	15	0	0	0	n.a.	4708	6936	2228	47
50-54	847	1022	175	21	65	62	-3	-5	0	0	0	n.a.	3705	5862	2157	58
55-59	426	644	218	51	44	24	-20	-45	0	0	0	n.a.	2650	4514	1864	70
60-64	302	337	35	12	31	11	-20	-65	0	1	1	n.a.	2365	3433	1068	45
65-69	171	212	41	24	26	6	-20	-77	0	0	0	n.a.	2024	2625	601	30
70-74	82	94	12	15	18	5	-13	-72	0	2	2	n.a.	1688	1934	246	15
75 +	39	46	7	18	15	10	-5	-33	0	4	4	n.a.	2262	3017	755	33
10 +	13565	13742	177	1	7229	11825	4596	64	21809	35336	13527	62	74269	92928	18659	25

Table A3
Population projections by age and sex 1981-2011

Age group	1981			1986		
	Males	Females	Both	Males	Females	Both
0- 4	29,570	28,702	58,272	29,769	28,735	58,504
5- 9	26,441	25,310	51,721	29,381	28,564	57,945
10-14	25,230	24,778	50,008	26,351	25,254	51,605
15-19	24,159	23,353	47,512	25,089	24,665	49,754
20-24	23,233	22,467	45,700	23,905	23,182	47,087
25-29	19,437	19,262	38,699	22,981	22,332	45,313
30-34	15,425	14,638	30,063	19,291	19,183	38,474
35-39	9,834	9,484	19,318	15,302	14,582	29,884
40-44	8,489	8,324	16,813	9,729	9,432	19,161
45-49	8,512	8,523	17,035	8,377	8,264	16,641
50-54	7,817	6,992	14,809	8,366	8,447	16,813
55-59	5,768	5,216	10,984	7,602	6,908	14,510
60-64	5,092	3,807	8,899	5,498	5,110	10,608
65-69	3,496	2,862	6,358	4,693	3,652	8,345
70-74	2,523	2,049	4,572	3,073	2,645	5,718
75 +	3,271	3,097	6,368	3,719	3,497	7,216
All	218,297	208,864	427,161	243,126	234,451	477,577

Age group	1991			1996		
	Males	Females	Both	Males	Females	Both
0- 4	29,622	28,597	58,219	28,970	27,955	56,925
5- 9	29,605	28,624	58,229	29,472	28,495	57,967
10-14	29,293	28,512	57,805	29,521	28,575	58,096
15-19	26,219	25,157	51,376	29,156	28,410	57,566
20-24	24,850	24,511	49,361	25,984	25,010	50,994
25-29	23,668	23,061	46,729	24,617	24,390	49,007
30-34	22,821	22,252	45,073	23,511	22,983	46,494
35-39	19,147	19,118	38,265	22,659	22,180	44,839
40-44	15,149	14,511	29,660	18,964	19,030	37,994
45-49	9,608	9,371	18,979	14,967	14,421	29,388
50-54	8,241	8,197	16,438	9,456	9,299	18,755
55-59	8,144	8,354	16,498	8,027	8,110	16,137
60-64	7,253	6,777	14,030	7,776	8,200	15,976
65-69	5,068	4,911	9,979	6,689	6,519	13,208
70-74	4,117	3,381	7,498	4,443	4,550	8,993
75 +	4,363	4,225	8,588	5,502	5,260	10,762
All	267,169	259,558	526,727	289,712	283,387	573,099

Table A3 (contd.) Population projections by age and sex 1981-2011

Age group	2001			2006		
	Males	Females	Both	Males	Females	Both
0- 4	28,023	27,042	55,065	27,022	26,072	53,094
5- 9	28,836	27,870	56,706	27,912	26,977	54,889
10-14	29,396	28,454	57,850	28,771	27,837	56,608
15-19	29,394	28,486	57,880	29,283	28,379	57,662
20-24	28,912	28,263	57,175	29,173	28,361	57,534
25-29	25,756	24,900	50,656	28,681	28,157	56,838
30-34	24,463	24,316	48,779	25,607	24,834	50,441
35-39	23,353	22,916	46,269	24,310	24,254	48,564
40-44	22,451	22,087	44,538	23,153	22,831	45,984
45-49	18,745	18,922	37,667	22,208	21,976	44,184
50-54	14,738	14,318	29,056	18,473	18,802	37,275
55-59	9,217	9,206	18,423	14,381	14,190	28,571
60-64	7,670	7,969	15,639	8,818	9,060	17,878
65-69	7,174	7,901	15,075	7,082	7,696	14,778
70-74	5,857	6,049	11,906	6,275	7,349	13,624
75 +	6,323	6,833	13,156	7,808	8,991	16,799
All	310,309	305,533	615,842	328,955	325,766	654,721

Age group	2011		
	Males	Females	Both
0- 4	25,733	24,813	50,546
5- 9	26,931	26,020	52,951
10-14	27,857	26,949	54,806
15-19	28,675	27,775	56,450
20-24	29,089	28,272	57,361
25-29	28,964	28,268	57,232
30-34	28,532	28,091	56,623
35-39	25,461	24,778	50,239
40-44	24,119	24,174	48,293
45-49	22,921	22,728	45,649
50-54	21,906	21,849	43,755
55-59	18,049	18,646	36,695
60-64	13,780	13,979	27,759
65-69	8,151	8,764	16,915
70-74	6,187	7,172	13,359
75 +	8,835	11,315	20,150
All	345,190	343,594	688,784

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