GUYANA EDUCATION ACCESS PROJECT
(GEAP)
Ministry of Education/DFID

Submitted to:
the Ministry of Education, Guyana
and DFID

REVIEW OF PROJECTED SECONDARY PUPIL NUMBERS IN REGION 6

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22 July – 6 August 2002

CONTENTS

Appendicies:

ACKNOWLEDGEMENTS

The fieldwork for this consultancy was conducted by Dr Mark Pelling over a 14 day period and included meetings in Georgetown with officers in the Ministry of Education, Ministry of Health, Statistical Bureaux and Urban Development Programme, and with GEAP project officers. The collection of information from Region 6 was made possible through the support and co-operation of regional education officers, NDC and Town Council officers. At the University of Liverpool quality control was undertaken by Professor WTS Gould and Maps were prepared by Suzanne Lee. Many thanks to all of those who gave of their valuable time and expertise to contribute to this report.

TERMS OF REFERENCE

The consultant will:

- Meet relevant MoE planning officials in order to understand the background against which planning for future increases in secondary school enrolment is set.
- Assess the current MoE information on secondary pupil numbers, covering both national and regional databases, with particular focus on the whole of Region 6.
- Check with MoE any additional influences (ie since the previous consultancy) impacting on pupil numbers which might need to be taken into consideration, agreeing with MoE the importance of and/or weighting for such factors.
- Review work done in the previous consultancies and inform MoE appropriately as regards guidelines on school-mapping with agreed assumptions, methodology, procedures and templates so that further exercises can be replicated in other regions.
- Obtain data (direct and indirect) with Region 6 (non-GEAP areas) in order to plot the likely secondary learner demand for the Region for the period 2003-2010.
- Make recommendations where possible/appropriate on the clustering/ rationalisation of Primary TOPs and on the convergence of Primary School secondary departments in the areas under study.
- Produce a report (*see below*), a key purpose of which is to set out clearly demand for secondary places in region 6 for the years 2003 to 2010.

The consultant will produce a draft report within 3 weeks of the completion of the visit. The report will:

- Present proposed learner demand scenarios for secondary school places in Region 6 (focus on non-GEAP areas) for the period 2003-2010.
- Make recommendations for the rationalisation of existing secondary places and/or new secondary places.
- Make reference as appropriate/necessary (eg in terms of possible overlapping catchment areas) to the 1st School Mapping consultancy (late 2000) which covered the GEAP area within region 6.

EXECUTIVE SUMMARY

The key findings of this study are:

1. **Unmet demand for Regions 6 in 2010 assuming 75% of school age children will enroll for secondary school is 12,256 (age 12-16) and 14,656 (age 12-17).** 2001 secondary capacity was 10,707 including primary tops. Ministry of Education planning guidelines set maximum secondary school size at 1050 students. Projected unmet demand for 2010 would require 3 new secondary schools based on 12-16 years education.

2. **Planners should consider as a priority the construction of a new medium sized secondary school in the Number 68-Crabwood creek region.**

3. **Educational planners should consider the construction of a new secondary school in the grounds of Belvedere primary school to meet projected demand in the Gibraltar-Lower Corentyne and Pourt-Mourant-Kildonan microplanning regions.**

4. **Proposals for a new secondary school at village Number 43 should be carefully reviewed. As part of a strategy to ease demand on Central Corentyne and Tagore Memorial a secondary school in or around this location is supported.**

5. **Secondary provision should be expanded in the Black Bush Polder microplanning region. Expansion on the site of the Black Bush General Secondary should be considered.**

6. **In New Amsterdam and its neighbouring microplanning regions secondary demand and provision should be monitored closely.**

7. **There are several opportunities for rationalizing primary tops in Region 6. In all cases care should be taken not to overemphasize efficiency over equality of access to secondary education, particularly amongst those children living in small or isolated settlements or those with limited transport infrastructure such as Mara, Schepmoed and Lighttown, Zorg, Gangaram. Other recommendations for primary top closures are: Lochaber, Bohemia, Sheet Anchor, Gibraltar-Courtland, Fyrish and Albion.**

8. **It is recommended that the region devise a coherent microplanning strategy to include at least two elements. First, the integrated planning of secondary school provision. Second, adequate training for teachers and adequate resources for teaching in those schools where primary tops are amalgamated into larger secondary classes.**

1. INTRODUCTION

In line with the terms of reference stated overleaf this report has a number of objectives. First, projections for secondary school demand in Region 6 are presented using three methodologies and argument is made for a preferred methodology. Secondly, micro-planning areas within Region 6 are identified, projections for secondary school demand and suggestions for further discussion within the Ministry to meet this demand are made. Fourthly, regional microplanning issues identified during discussions with regional planners are presented as items for consideration by the Educational Planning Unit. Fifthly, in the Appendices, full workings used to derive projections are shown.

2. PROJECTION METHODOLOGIES

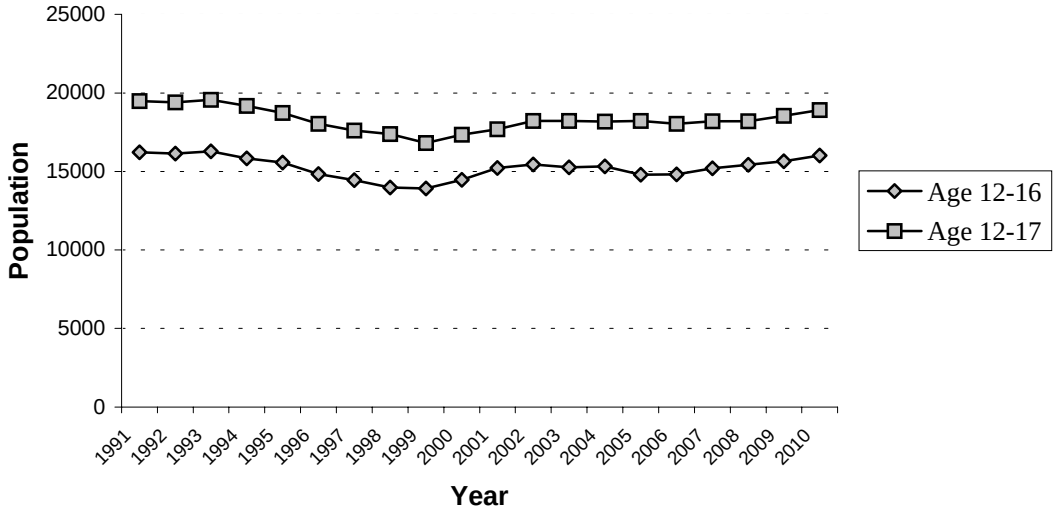
Three different methodologies were used to generate predictions for secondary school demand in Region 6. The first drew data from the 1991 National Population and Housing Census. The second used data on household numbers collected from Neighbourhood District Councils, Town Councils and the Urban Development Programme. The third method developed a projection based on September 2001 nursery, primary and secondary enrolments. The methods are presented below and reviewed for their accuracy and appropriateness in Region 6.

2.1 1991 Population and Housing Census Baseline Projection

This method was based on projections from the 1991 Population and Housing Census. From the census it was possible to extract the population of Region 6 and to break this down into single year groups from age 0 (before the first birthday) to 99. Projecting from this baseline requires three kinds of data, all of which must be available on an annual basis for the population under study: total live births, deaths by age and inward and outward migration by age. Currently in Guyana data is available at the regional level for total live births and deaths by age from the Ministry of Health Statistical Unit. Unfortunately there is no formal record of internal or international migration flows at a sub-regional or regional level.

Despite the lack of migration data an estimate for projected population change can still be arrived at. Date used in this projection are the 1991 population census for Region 6 broken down into years of life, annual total live births for Region 6 and annual deaths for each year of life recorded for Region 6. Using the 1991 census and annual birth totals for 1992 onwards and by subtracting annual mean age specific deaths from the previous year's population for each age group, the subsequent year's population can be calculated for each cohort as they age. This has been done from 1991 to 2010 (Appendix I and II for data and mean death rates). The data for population between the ages of 12-16 and 12-17 inclusive were thus calculated and summed for each year from 1991 to 2010. The results of these calculations are shown in Figure 1.

Figure 1: Secondary School Age Population (Age 12-16 and 12-17), Region 6, 1991-2010



Data Source: 1991 National Population and Housing Census, Region 6 Annual Health Reports

Figure 1 shows a fluctuating pattern of demand for secondary school places assuming 100% enrolment (see Appendix II for a complete data set). Initially total demand decreases from 1991 (12-16, 16224; 12-17, 19484) to 1999 (12-16, 13913; 12-17, 16806) with a gradual recovery in population to 2010 (12-16, 16021; 12-17, 18911), although 1991 levels are not met again. Such a pattern can partly be explained by the succession of larger initial age cohorts from the early 1990s in the late 2000s as children from the larger cohort are born. However, the absence of migration data undermines the accuracy of this projection. It may be that high rates of movement out of Region 6 will result in a lower population than is projected by this simple model.

There is no data for internal population movements within Guyana. National migration is available data from the Statistics Bureau and this indicates that on average 12,000 more departures than arrivals were recorded annually at airports and ports between 1991 and 1999. Anecdotal evidence suggests that migration to Canada, the Caribbean, UK or US from Region 6 is a frequent response to the social and economic pressures of life. It seems likely that out-migration will depress the projected demand in Figure 1 making this an overestimation and possibly masking a continuous net decline in population from 1991 to 2010. Without migration data it is not possible to estimate the size of this error.

2.2 Secondary School Age Population Estimate Based on The Number of Dwellings in Region 6

In the absence of population data, it is necessary to use proxy or indirect measures. In some instances population can be indicated by consumption of key goods and services such as potable water or electricity. In Region 6 it is possible to use the number of dwellings as an indirect measure and from this to calculate the present size of 12-16 and 12-17 population groups. Being an indirect method this approach is open to

greater uncertainty than the census method but is presented here by way of a comparison.

The number of dwellings reported by Neighbourhood Democratic Councils, Town Councils and the surveyor of the Urban Development Programme based in Georgetown are presented in Appendix III. Data was complied in the region by asking council officers to provide the numbers of residential lots recorded in their rate books and then to increase or reduce this figure to take account of multiple households residing in a single lot or of unoccupied lots, based on their local knowledge. The number of unrecorded squatter dwellings was also requested and included in council totals.

Assuming a mean number of residents per dwelling in Region 6 of 4.5 (the national mean derived from the 1991 census), and given that 0.11 of total population falls into the 12-16 age group and 0.14 into the 12-17 age group (1991 census), it is possible to estimate the size of these population groups in Region 6 for 2002. This method assumes that mean household size will have remained at 4.5 from 1991, this is possible but the lack of any more recent assessment of household formation and size for Guyana and the absence of any information on household size in Region 6 itself reduces the confidence that can be placed on this method. The formulae used to generate this information and final current population estimates by age group are shown in Box 1.

Box 1: Current Secondary School Age Population in Region 6, Indirect Method

12-16 population = (number of households x 4.5) x 0.11
12-17 population = (number of households x 4.5) x 0.14

12-16 population = 16224
12-17 population = 19484

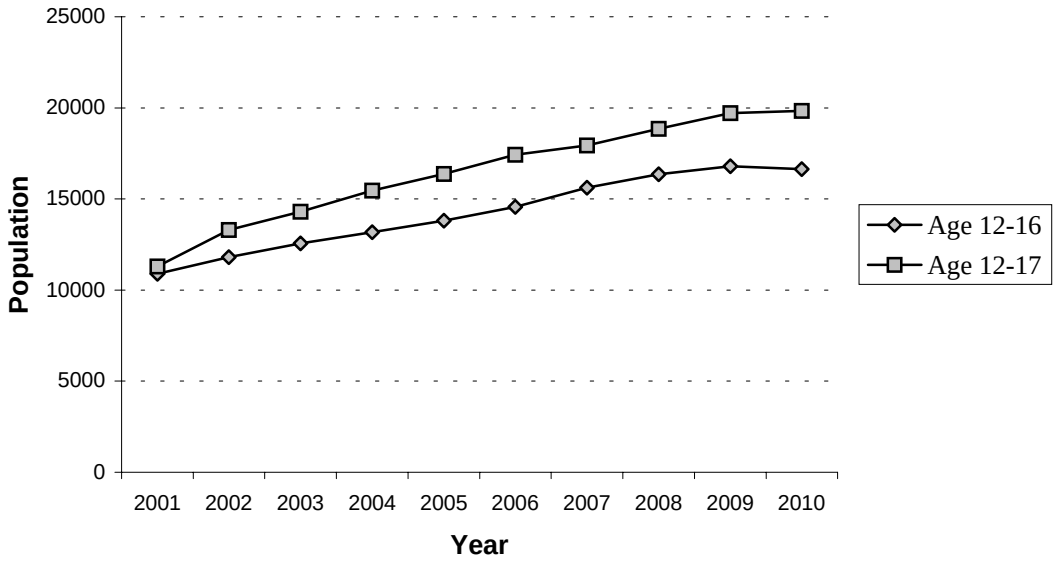
Both estimates exceed the 1991 census baseline projections for 2002 by around 1000. Given that the census baseline method is likely to be an overestimate the estimates produced from dwelling data appear greatly inflated. This confirms the relatively low levels of confidence that can be placed on the outcomes of this indirect method. Population estimates produced by this method should not be used by the Ministry of Education for planning purposes.

2.3 Current School Enrolment Baseline

If we assume that current primary and nursery school enrolments are 100% of demand (i.e. that all children of nursery and primary school age are enrolled) then present enrolments can be used to predict future secondary school demand as successive age cohorts progress through the school system. Such an assumption is made in the Educational Microplanning and School Mapping Technical Manual. In the GEAP Household Income and Expenditure Survey conducted in Region 6 in 2000 it was found that 75.5% of 4-5 year olds attended nursery school and 93.5% of 6-11 year olds attended primary school. The same survey found only 55.6% of 12-17 year olds attended secondary school.

Despite such high non-attendance rates, this approach is the only approach that can capture the target population and is considered the method of preference. Figure 2 (Appendix IV) presents projected 12-16 and 12-17 populations for Region 6, 2002 – 2010 assuming 100% of those currently enrolled in education will continue through to secondary levels. The projection used a baseline of 2001 enrolments for nursery primary and secondary level education. Primary top classes were counted as secondary. As with the previous projections, the demand for secondary school places was determined by the projected population of 12-16 and 12-17 year olds (forms 1-5 and 1-6), with actual enrolment figures used for 2001. It was necessary to calculate the value for Form 1 in 2010; this was done using the mean enrolment of preceding years up to 2009 for each class in question. For this reason confidence in the projection is lower for 2010. The low population of the 12-17 age group in 2001 is explained by the very low levels of Form 6 (year 17) enrolments at the time of this assessment.

Figure 2: Projected Demand, School Enrolment Baseline, Region 6



Data Sources: Educational Planning Unit Annual School Returns, GEAP Counterpart Officer Region 6

From Figure 2, it appears that there will be a steady increase in demand from 2001 (12-16, 10703; 12-17, 10707) up to 2010 (12-16, 16636; 12-17, 19836). As with the preceding methods, external migration has not been factored into this model which should therefore be seen as presenting a maximum figure.

Table 1 compares the census and school enrolment baseline projections for 2002 and 2010 with directions of bias. The table serves to highlight the degree of uncertainty attached to projections. The 2002 projections from both baselines support each other in the direction of their bias. This is not the case for 2010 projections. The higher estimates from the 2001 enrolments are slight underestimates (based on only 75% of nursery school age children being accounted for) compared with the lower projections from the 1991 census baseline which are overestimates (not including emigration from 1991 onwards). Caution must be exercised in interpreting the projections.

Table 1: Comparison of Baseline Projections

Cohort	1991 Census Baseline	2001 Enrolments Baseline
2002		
12-16	15441 (overestimate)	11804 (underestimate)
12-17	18224 (overestimate)	13033 (underestimate)
2010		
12-16	16021 (overestimate)	16636 (slight underestimate)
12-17	18911 (overestimate)	19836 (slight underestimate)

3. AGGREGATE SECONDARY SCHOOL DEMAND PROJECTIONS TO 2010 FOR REGION 6

In the previous section, the 2001 school enrolment baseline method was proposed as the most reliable projection method. However, the assumption that 100% of current students will continue into secondary education, even with enhanced investment from the Ministry of Education, is not realistic. Box 2 discusses those issues identified as being most prominent in influencing students to drop-out from the educational system, and so not continuing on to 2010.

Box 2: Education Drop-Out in Region 6

Based on field interviews, the GEAP 1999 Household Income and Expenditure Survey for GEAP area, Region 6, and a special study on drop-outs in Region 6 commissioned by GEAP, two broad categories of pressures were identified that cause children to drop-out of education: socio-economic and educational.

Socio-economic pressures largely fall outside the scope of the Ministry of Education. Economic pressures include the need for children to earn an income to support the household requiring their withdrawal from education, and the inability of households (parents or carers) to support a child in education. Social factors lead to the withdrawal of girls from education as they reach marriageable age, either to enter into a marriage, or because parents wish to control the activities of unmarried young women. There is some scope here for schools to increase enrolments by tailoring their services to the needs of low-income families and children and to families concerned for their daughters behaviour, but opportunities are somewhat limited and lie in the larger processes of economic development and cultural change within Guyanese society.

Educational pressures are more easily addressed and include perceptions that secondary education does not offer the skills required to gain appropriate employment after graduation. There is a related view in Region 6 that few jobs requiring a secondary education are available locally so that to invest in a secondary education will cause family resources to be expended without any increased employment opportunity. Here the educational and socio-economic pressures overlap since those children and relatives that value a secondary education still more are deterred by the unequal distribution of secondary education resources in the Region (as elsewhere in Guyana). In particular there is a feeling that to be educated in a Primary Top class, where teachers are unlikely to be trained to a sufficiently high level to undertake secondary level teaching and where students of mixed age and ability must study

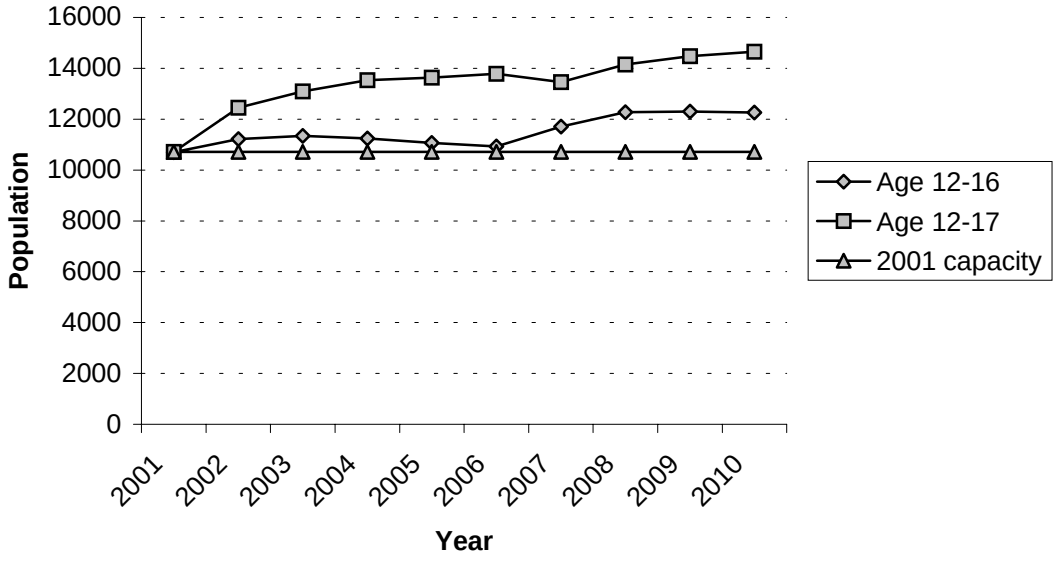
together, is unlikely to provide a worthwhile secondary education. Consequently prospective students are unlikely to apply for secondary school places if they do not expect to win a place in a secondary school and drop-out rates from primary tops are high.

Educational pressures can be met in isolation by innovative school management and teaching backed up by parental support, but more broadly require increased investment in and restructuring of the educational system, of the kind in which the Ministry of Education and Government of Guyana are now engaged.

Given currently high drop-out rates of 50% for secondary school cohorts a more realistic assumption is that 75% of children who enrolled for nursery and primary school in 2001 will continue into secondary school up to 2010. This assumption was also made for the earlier projection of secondary school demand in GEAP area, Region 6 (16 – 18 September, 2000) and has been arrived at following discussion with regional and central education planning officers.

Figure 3 (Appendix V) presents a projection of demand based on an assumed enrolment ratio of 75%. Simply to calculate 75% from the 100% projected demand for each year would have the effect of artificially decreasing projected demand in the initial years of the projection. In these years where secondary school demand includes children already in the secondary school system drop-out rates of 75% are probably excessive. Although this would not alter the important 2010 projected figure, which represents 75% of current enrolments for students in nursery grades 1 and 2 and primary preparatory grades a and b and standard 1, the projection in Figure 3 applies calculated 75% projections only for those cohorts from primary standard 4 and below in 2001. This figure also uses 2001 secondary enrolment as a measure of secondary school capacity.

Figure 3: Projected Demand for Region 6 @ 75% Enrolment



Data Sources: Educational Planning Unit Annual School Returns, GEAP Counterpart Officer Region 6

Table 2: Unmet Demand in Region 6 @ 75% Enrolment

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
2001 school capacity	10707	10707	10707	10707	10707	10707	10707	10707	10707	10707
Demand 12-16	10703	11221	11345	11234	11070	10925	11709	12269	12295	12256
Demand 12-17	10707	12450	13094	13530	13634	13782	13456	14142	14480	14656
Unmet Demand 12-16	-4	514	638	527	363	218	1002	1562	1588	1549
Unmet Demand 12-17	0	1743	2387	2823	2927	3075	2749	3435	3773	3949

The unmet demand for Region 6 in 2010, assuming 75% of students enrolled in 2001 will progress through to secondary education is shown in Table 2. For 2010 unmet demand of 1549 assumes secondary education for Forms 1 through 5, or 3949 for Forms 1 through 6. Both Figure 3 and Table 2 show a fluctuating enrolment with only a small overall increase between 2001 and 2006 but with a stronger trend towards increasing enrolments at the secondary level from 2007 onwards. These years correspond to 2001 primary and nursery enrolments progressing through the educational system into secondary schools. Total 2001 nursery form enrolments have on average 300 more students than annual primary school form enrolments. This difference does not seem to be explained by an unwillingness for children to attend primary schools. According to the GEAP 'Survey of why children leave primary top classes', some 75.5% of 4-5 year olds attended nursery school and 93.5% of 6-11 year olds attended primary school. If these data are correct then the only explanation for the greater numbers of children enrolled in nursery than primary schools must be because there are fewer children of primary school age in Region 6. The most likely explanation for missing primary school age children is that they have migrated out of Region 6.

The GEAP survey found 55.6% of 12-17 year olds attended secondary school, suggesting that the projection used here assumes only a modest expansion in the proportion of children seeking a secondary education. Again though this criticism does not take the countervailing effect of emigration into account. Overall there is some uncertainty with these projected figures and caution should be used. This is especially in the light of the 2002 National Housing and Population Census, which may provide an insight into emigration rates from Region 6 and would make an appropriate resource to strengthen educational planning decisions made following the recommendations offered in this report.

Notwithstanding the weaknesses discussed, a best-fit projected unmet demand for places in secondary school in Region 6 for 2010 (Forms 1-5) is 1,549.

The following section explores potential scenarios for responding to this unmet demand.

4. MICROPLANNING AREAS IN REGION 6

In the previous section unmet future demand of 1,549 places by 2010 was identified. This section presents preferred locations for investments to increase secondary capacity to meet this unmet demand. As background information the Ministry of Education Non-Academic Education Standards published in 2002, provides the following guidance for minimum and maximum secondary school enrolments in developed coastal regions of Guyana:

Minimum	-	200	
Optimum	-	350	(2 streams)
	-	525	(3 streams)
	-	700	(4 streams)
Maximum	-	1000	(5 or 6 streams)

Secondary schools do not have formal catchment areas. In the present system of allocating secondary places secondary schools can be asked to accept students residing anywhere in Guyana. Students and their guardians apply for places in named secondary facilities and are awarded places depending on the student's mark in the secondary school entrance examination. Despite individual facilities not having formal catchment areas, in practice prospective students and their guardians tend to apply for local schools. The exception to this arises when top scoring students are invited to attend the country's top ranked secondary schools, which are based in Georgetown and Region 4.

With this guidance in mind, a first step towards identifying preferred locations for increased secondary capacity is to map the distribution of population and current secondary provision using the 1991 census and information from the Ministry of Education (see Maps 1 and 2). The population distribution in Map 1 is based on data from the 1991 census and should be interpreted with caution. Notwithstanding its age, this remains the most reliable existing data source. As was shown in section 2.2 an alternative method based on soliciting information from NDC and Town Councilors had an unacceptably high margin of error. The value of Map 1 is in providing an overview of population distribution for the Region. It seems likely that whilst individual village populations may have risen or fallen source 1991, the basic distribution of more or less densely populated areas within the region will not have changed dramatically. Corriverton, New Amsterdam and Rose Hall remain the population centers for the region. Unfortunately with no migration data it is not possible to identify the direction of population growth for individual settlements. Interviews with regional officers and National Democratic Council officers suggest that the greatest population growth is in Corriverton with New Amsterdam experiencing some inward migration from riverine settlements. Map 1 is useful in comparing the broad population densities of individual educational microplanning areas discussed below and also in comparison with educational provision shown in Map 2.

Comparing Map 1 with Map 2, suggests that provision does broadly follow demand with concentrations of population and secondary education provision in New Amsterdam and villages to the north of New Amsterdam, Gibraltar to Kildonan and New Market to Crabwood Creek. Map 1 also highlights the need to provide secondary

education to dispersed populations living in riverine areas, in less densely inhabited parts of the coast and in the Black Bush Polder, suggesting that caution should be exercised when considering the closure of primary top facilities in these areas where transport is difficult and physical access is restricted. these and other issues will be returned to below in discussions and recommendations for educational planning at the microplanning level.

4.1 Local Demand Projections

Table 3 presents current secondary capacity (indicated by 2001 enrolments in primary tops and secondary schools), 75% demand projections for 2010 calculated following the 2001 enrolment baseline methodology and calculated unmet demand predicted for 2010. This is done for 10 microplanning regions. Under the heading '2001 Enrolment' the number of classes held in secondary schools for each micro-planning region is identified. this figure is higher than the number of classrooms with some classrooms housing more than one class. Including this data in Table 3 shows the existing capacity in the region within the secondary school system. The consultancy visit coincided with the summer holiday and so there was no opportunity to assess the scope that exists within schools for increases intake with existing physical infrastructure. Interviews with regional educational planning officers indicated that schools are operating at full capacity and this assumption is made in the following discussions and recommendations.

Three primary top schools and the populations they serve were excluded from this analysis: Sandvoort, Tacacuba and Bara Cara. These are important schools in Region 6 serving interior and isolated riverine settlements but with little impact on secondary provision on the developed coast. It is recommended that primary tops are maintained in these schools.

Table 3: Secondary Demand in Microplanning Regions, 2010

Region	2001 Enrolment (classes)[1]	12-16		12-17	
		Demand	Unmet Demand*	Demand	Unmet Demand
Mara-Edinburgh	86 (0)	526	440	605	519
New Amsterdam	3123 (117)	1936	-1187	2330	-793
Fort Ordinance – Bohemia – Zorg	690 (17)	1367	677	1569	879
Gibraltar – Lower Corentyne	1424 (38)	1796	372	2150	726
Port Mourant - Kildonan	1965 (73+)	2231	266	2590	625
Central Corentyne – Eversham	519 (20)	212	-307	289	-230

#43 – Tagore Memorial	840 (20)	1109	269	1316	476
Black Bush Polder	303 (7)	552	249	643	340
#68 – Crabwood Creek	1484 (39)	2187	703	2655	1171
Orealla - Siparuta	94 (0)	200	106	233	139

Enrolment (classes)[1] = enrolment is for all secondary classes including primary tops, classes refers only to classes in secondary schools. The number of classrooms will be smaller than this figure as multiple classes are held in some classrooms. Special teaching rooms have been excluded.

The – symbol before a demand estimate indicates a surplus capacity of spaces against demand based on data for individual microplanning regions. This does not take into account the possibility of students traveling between microplanning regions. See discussion below.

Unmet Demand* = Total Unmet demand for age 12-16 in Region 6 is 1588, 39 higher than the 75% projection from Region 6 calculated in Section 3. The difference results from having to estimate demand for Form 1 in 2010 which can not be generated by projection 2001 enrolments. In Section 3, Form 1 demand was calculated as the mean of Form 1 enrolments from 2001-2009. In Table 2, Form 1 demand was assumed to be equivalent to Form 2 demand. The discrepancy between these totals is minor and does not weaken the validity of the findings.

Following guidance from the Ministry of Education, in the following discussion reference will only be made to demand at 75% for age 12-16 in 2010. Data for age 12-17 are presented in Table 2 for completeness and future reference only. Data and subsequent recommendations are discussed for each microplanning region, with linkages between contiguous regions taken into account when appropriate.

New Amsterdam, Mara-Edinburgh and Fort Ordinance–Bohemia-Zorg

In New Amsterdam local capacity (3123) is considerably in excess of local projected demand for 2010 (1936). However, this apparent overprovision is not reflected on the ground where secondary capacity in New Amsterdam is seen to be stretched. New Amsterdam clearly draws students in from Mara-Edinburgh and Fort Ordinance–Bohemia-Zorg microplanning areas and interviews with regional officers suggests that some students may travel from more distant coastal areas. Indeed projected overcapacity in New Amsterdam (-1187) is balanced out by projected unmet demand in its neighbouring microplanning areas (440 + 677 = 1117).

- Secondary provision in New Amsterdam and its neighbouring planning regions should be closely monitored with the expansion of capacity at Vrymen's Erven being paid special attention. Consideration should be given to expanding provision in Mara–Edinburgh and Fort Ordinance–Bohemia-Zorg microplanning regions if the contribution of these regions students to New Amsterdam schools continues to increase.

Gibraltar-Lower Corentyne and Port Mourant-Kildonan

The Gibraltar-Lower Corentyne and Port Mourant-Kildonan regions have a combined projected unmet demand for 2010 of 638. Some demand from Kildonan, Alness, McGowan may be met by projected excess capacity in the Central Corentyne-

Eversham region (-307). This assumes excess demand is focused on Central Corentyne General Secondary which lies only 5km to the east of Kildonan and still leaves an unmet demand in this microplanning region of at least 340

- Unmet demand in the Gibraltar-Lower Corentyne and Port Mourant-Kildonan regions seems likely to require the construction of a new secondary facility. Given the excess provision in Central Corentyne a preferred site would be in the Gibraltar-Lower Corentyne region. A site in the grounds of Belvedere primary school is available and offers an appropriate location which should be investigated.

Black Bush Polder (Lesbeholden –Johanna)

Transport from the Black Bush Polder settlements and schools of Lesbeholden, Mibikuri, Johanna and Yakasari to the coastal schools is difficult at present with an earth road. Unmet demand from this single region for 2010 is estimated to be 249.

- Assuming transport between Black Bush Polder settlements and the coast is not improved, steps should be taken to meet a projected shortfall of 249 in 2010. This is likely to be best achieved by expanding the existing Black Bush General Secondary. The priority for investment in this microplanning region is increased by poor transport infrastructure preventing students from accessing secondary education on the coast.

Central Corentyne- Eversham

The limited demand in this region is adequately met by the Central Corentyne General Secondary school. Projections show an unmet capacity of 307 students for 2010. However, we assume here that Central Corentyne General Secondary is strategically important in providing secondary places for students residing in the adjacent Port Mourant-Kildonan region limiting spare capacity. The role of Central Corentyne General Secondary school in meeting such a strategic role should be reviewed by the regional planning staff as part of their overall review of secondary provision in this important Central Corentyne region.

Number 43-Tagore Memorial

The number 43-Tagore Memorial region shows unmet demand for 2010 of 269.

- Proposals for the construction of a new secondary school in number 43-Tagore Memorial region are tentatively supported by the data presented here. Projected unmet demand of 269 in 2010 is sufficient to justify the construction of a single stream secondary school. Planners should consider the following issues in their deliberations:

  - There is excess capacity to the west in Central Corentyne-Eversham, but if we assume this capacity is taken up by students traveling from the Port-Mourant-Kildonan region, there may even be a small excess of demand in Central Corentyne-Eversham. Indeed, the provision of a secondary school in the vicinity of number 43 village could act to pull students in from the west who would otherwise use Central Corentyne General Secondary, resulting in the freeing up of additional capacity in this school to serve the large unmet demand projected for Port-Mourant-Kildonan.

- Extension of Tagore Memorial High for September 2002 entry will provide this microplanning region with an additional 8 classes or 260 places. This is sufficient to meet the predicted demand for this region up to 2010. However, the extension of Tagore memorial was planned together with extensions of Skeldon Line Path (5 classes with 164 students) and Skeldon High School (6 classes with 194 students) to meet demand on secondary school provision in the Corriverton and Skeldon areas. It is anticipated that the 260 places available in Tagore Memorial High will be needed to relieve pressure on Corriverton Schools to the east. Theoretically an alternative to constructing a school at number 43 village would be to invest in meeting secondary demand in the number 68-Crabwood Creek microplanning subregion which would allow the 260 new spaces at Tagore Memorial to be available for students from the Number 43-Tagore Memorial catchment. With Tagore Memorial High at the eastern extremes of this microplanning region guidelines of acceptable costs, time and safety risks for student travel should be considered.

- Assuming there is no improvement in the existing poor state of transport infrastructure between this microplanning region and Black Bush Polder then unmet demand in Black Bush Polder cannot be used to justify increased provision.

Number 68-Crabwood Creek, Orealla and Siparuta

The area of greatest predicted unmet demand in 2010 lies in the number 68-Crabwood Creek region, at 703. Need is demonstrated by unmet student demand and by the low number of classrooms available in this regions compared to Rosehall and New Amsterdam (see Table 3). This may be inflated further by demand from the riverine settlements of Orealla and Siparuta, which have a combined unmet demand projected at 106.

- The Ministry of Education should seriously consider the construction of a new secondary school in the #68-Crabwood Creek region with capacity for 700 students.

- Meeting demand in Orealla and Siparuta may prove to be a challenging policy area in the coming year. Equity considerations point towards the building of a residential secondary school for around 100 in Orealla, Siparuta or Corriverton. However, efficiency councils against such a proposal with residential facilities having high costs implications. The region should consider the provision of secondary education for Orealla, Siparuta and other riverine settlements as a priority for strategy building with input from the Ministry of Education.

4.2 Rationalisation of Primary Tops

Ongoing strategy in the Ministry of Education calls for the rationalization of primary tops. The following suggestions were made to the consultant by regional education planners and are reported here for discussion. In considering the recommendations made below the reader should consult Maps 1 and 2 showing population distribution (1991) and schools distribution (2002).

Mara-Edinburgh

Close Mara (2 students, 2001-02) and Schepmoed (4 students, 2001-02) primary tops and refer students to Plegt Anker primary top (19 students, 2001-02). Close Lighttown primary top (2 students, 2001-02) and refer students to Friends primary top (40 students, 2001-02). Before closing these primary tops poor transport infrastructure in Mara, Schepmoed and Lighttown should be considered. The consultant was unable to make site visits to schools in this region because of bad road conditions.

New Amsterdam.

Vryman's Erven. Create a new primary top facility for 100 students to be administered out of but kept physically separate from Vryman's Erven Secondary School. Building, furniture and staff are available. Close Lochaber primary top (0 students, 2001-02) and refer students to Vryman's Erven primary top.

Fort Ordinance-Bohemia-Zorg

Close Bohemia (0 students, 2001-02) and Sheet Anchor (40 students, 2001-02) primary tops and refer students to Fort Ordinance primary top (42 students, 2001-02). Close Zorg (2 students, 2001-02) and Gangaram (16 students, 2001-02) primary tops and refer students to Betsy Ground primary top (27 students, 2001-02). Transport issues affecting physical access for students attending Zorg and Gangaram should be considered before these primary tops are closed.

Gibraltar-Lower Corentyne

Close Gibraltar-Courtland (0 students, 2001-02) and Fyrish (0 students, 2001-02) primary tops and refer students to Cropper primary top (57 students, 2001-02).

Port Mourant-Kildonan

Close Albion primary top (37 students, 2001-02, mostly living on the front) and refer students to Port Mourant or Manchester General Secondary. Both these secondary schools have physical capacity for expansion.

Black Bush Polder (Lesbeholden–Johanna)

Use one classroom from the discrete primary at Mibikuri as an overflow space for expansion in Black Bush General Secondary.

Central Corentyne-Eversham

Dispersed population with distance between schools a concern. More consultation, including that with parents is needed.

Number 43-Tagore Memorial

Dispersed population with distance between schools a concern. More consultation, including that with parents is needed.

Nunmber 68-Crabwood Creek

Crabwood Creek (45 students, 2001-02) and No 68 (9 students, 2001-02) primary tops have already been amalgamated with Corriverton primary top (120 students, 2001-02). Training is needed for teaching and administration staff.

5. DISCUSSION

This report has estimated demand for Region 6 in 2010, assuming 75% of school age children will enrol for secondary school, at 12,256 (age 12-16). This is expected to be an overestimate of true demand as emigration has not been taken into account.

This said, the clear need for expanded capacity in Region 6 is indicated simply by looking at SEE examination data compiled by the Region 6 Deputy Chief Education Officer (Admin.). It was found that in 2002, of the 2,344 candidates entered for the SSEE exam 620, or 26% of students did not gain a place at secondary school. Failure to gain a place at secondary school was a result of students either failing to sit the exam (117 cases) or failing to meet a minimum grade required to proceed to secondary school.

The SSEE exam data tell us two things. First, if we assume all those students entered for the SSEE wished to proceed to a secondary education there is an existing unmet demand in Region 6 of 620 students. Secondly, that under the present system of secondary place allocations it is essential for greater secondary school provision to go hand-in-hand with enhanced primary and nursery provision to enable nursery and primary students to reach the SSEE grade that will provide a solid foundation for secondary school education.

The findings of this report and especially the proposals in section 4 represent a continuing discussion amongst regional planning officers which must be encouraged This debate needs to be broadened to include parents and teachers and to proceed at a pace that facilitates training and adequate preparation before amalgamations and closures commence.

Training for teachers and the provision of appropriate infrastructure, teaching materials and fixtures and fittings is essential if amalgamating primary tops into larger units is to provide improved secondary education. In the past in Region 6 rapid amalgamation of primary tops has left insufficient time and resources for training and selecting appropriate teaching and administrative staff. A coherent policy on primary tops is required in the region.

Appendix 1: Deaths Per Year of Life, Region 6, 1999

Age	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Deaths	34	21	3	1	1	4	1	1	-	1	1	-	-	-	-	-	2	-	2

Source: Ministry of Health

Appendix 2: Life Table Projected from 1991 Census

Age/class	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
0	2804	2933	2945	3291	3422	3033	3150	3297	2163	3410
1	3015	2783	2912	2925	3270	3401	3012	3129	3276	2142
2	3235	3012	2780	2909	2902	3267	3398	3009	3126	3273
3	3442	3234	3011	2779	2908	2901	3266	3397	3008	3125
4, N1	2847	3441	3233	3010	2778	2907	2900	3265	3396	3007
5, N2	2945	2843	3437	3229	3006	2774	2903	2896	3261	3392
6, Pa	2786	2944	2842	3437	3228	3005	2773	2903	2895	3260
7, Pb	2465	2786	2944	2841	3436	3227	3004	2772	2902	2894
8, S1	2888	2465	2786	2944	2841	3436	3227	3004	2772	2902
9, S2	2896	2887	2464	2785	2943	2840	3436	3226	3003	2772
10, S3	3421	2895	2886	2463	2785	2942	2839	3435	3225	3002
11, S4	3168	3421	2895	2886	2463	2785	2942	2839	3435	3225
12, F1	*3202*	*3168*	*3421*	*2895*	*2886*	*2463*	*2785*	*2942*	*2839*	*3435*
13, F2	*3152*	*3202*	*3168*	*3421*	*2895*	*2886*	*2463*	*2785*	*2942*	*2839*
14, F3	*3335*	*3152*	*3202*	*3168*	*3421*	*2895*	*2886*	*2463*	*2785*	*2942*
15, F4	*3283*	*3335*	*3152*	*3202*	*3168*	*3421*	*2895*	*2886*	*2463*	*2785*
16, F5	*3252*	*3281*	*3333*	*3150*	*3200*	*3164*	*3419*	*2893*	*2884*	*2461*
17, F6	*3260*	*3252*	*3281*	*3333*	*3150*	*3200*	*3164*	*3419*	*2893*	*2884*
Total 12-16	16224	16138	16276	15836	15570	14829	14448	13969	13913	14462
Total 12-17	19484	19390	19557	19169	18720	18029	17612	17388	16806	17346

No data was available for migration, which was not taken into account in this projection.

Totals are shown for age groups 12-17 (form 1 to form 6) and 12-16 (form 1 to form 5).

The age labelling convention used on life tables in this report is a s follows: age 0 is for those children who have not reached their first birthday, age 1 is for those children older than 1 year of age who have not yet met their second birthday etc.

Appendix 2: Life Table Projected from 1991 Census

Age/class	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
0	-	-	-	-	-	-	-	-	-	-
1	3389	-	-	-	-	-	-	-	-	-
2	2139	3386	-	-	-	-	-	-	-	-
3	3272	2138	3385	-	-	-	-	-	-	-
4, N1	3124	3271	2137	3384	-	-	-	-	-	-
5, N2	3003	3120	3267	2133	3380	-	-	-	-	-
6, Pa	3391	3002	3119	3266	2132	3379	-	-	-	-
7, Pb	3259	3390	3001	3118	3265	2131	3378	-	-	-
8, S1	2894	3259	3390	3001	3118	3265	2131	3378	-	-
9, S2	2901	2893	3258	3389	3000	3117	3264	2130	3377	-
10, S3	2771	2900	2892	3257	3388	2999	3116	3263	2129	3376
11, S4	3002	2771	2900	2892	3257	3388	2999	3116	3263	2129
12, F1	*3225*	*3002*	*2771*	*2900*	*2892*	*3257*	*3388*	*2999*	*3116*	*3263*
13, F2	*3435*	*3225*	*3002*	*2771*	*2900*	*2892*	*3257*	*3388*	*2999*	*3116*
14, F3	*2839*	*3435*	*3225*	*3002*	*2771*	*2900*	*2892*	*3257*	*3388*	*2999*
15, F4	*2942*	*2839*	*3435*	*3225*	*3002*	*2771*	*2900*	*2892*	*3257*	*3388*
16, F5	*2783*	*2940*	*2837*	*3433*	*3223*	*3000*	*2769*	*2898*	*2890*	*3255*
17, F6	*2461*	*2783*	*2940*	*2837*	*3433*	*3223*	*3000*	*2769*	*2898*	*2890*
Total 12-16	15224	15441	15270	15331	14788	14820	15206	15434	15650	16021
Total 12-17	17685	18224	18210	18168	18221	18043	18206	18203	18548	18911

No data was available for migration, which was not taken into account in this projection.
Totals are shown for age groups 12-17 (form 1 to form 6) and 12-16 (form 1 to form 5).

Appendix 3: Secondary School Age Population Estimate Based on The Number of Buildings in Region 6

Council	Residential Buildings	Council	Residential Buildings
Mora	100	Maccedonia-Joppa	758
Edinburgh	1000	Hogstye-Lancaster	1470
New Amsterdam Town	5300	Good Hope-#51	1300
Good Hope-#51	1300	#52-#74	5703
Fort Ordinance	1872	Corriverton Town	2888
Canefield-Enterprise	3445	Crabwood Creek	1039
Kintyre-Borlam	900	Black Bush Polder	1760
Gibraltar-Fyrish	913	Bara Cara	100
Kilcoy-Hampshire	3794	Tacouba	25
Rose Hall Town	1167	Orealla-Siparuta	225
Port Mourant	2161		
Bloomfield-Whim	1243		
Maida-Tarlagie	326		
Bush Lot #28-Adventure	745		
Total Dwellings	38234		

@4.5 people per dwelling, total population = 172053
From 1991 Census, 12-16 age group is 16224 or 0.11 of total population.
From 1991 Census, 12-17 age group is 19484 or 0.14 of total population.

12-16 age group in 2001 if 0.11 of total population = 18926
12-17 age group in 2001 if 0.14 of total population = 24087

Appendix 4: Life Table from September 2001 School Enrolment

Age/class	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
4, N1	3358	-	-	-	-	-	-	-	-	-
5, N2	3250	3354	-	-	-	-	-	-	-	-
6, Pa	3380	3250	3353	-	-	-	-	-	-	-
7, Pb	3621	3379	3249	3352	-	-	-	-	-	-
8, S1	3204	3621	3379	3249	3352	-	-	-	-	-
9, S2	2917	3203	3620	3378	3248	3351	-	-	-	-
10, S3	2500	2916	3202	3619	3377	3247	3350	-	-	-
11, S4	2332	2500	2916	3202	3619	3377	3247	3350	-	-
12, F1	*2859*	*2332*	*2500*	*2916*	*3202*	*3619*	*3377*	*3247*	*3350*	*3045*
13, F2	*2566*	*2859*	*2332*	*2500*	*2916*	*3202*	*3619*	*3377*	*3247*	*3350*
14, F3	*2298*	*2566*	*2859*	*2332*	*2500*	*2916*	*3202*	*3619*	*3377*	*3247*
15, F4	*1751*	*2298*	*2566*	*2859*	*2332*	*2500*	*2916*	*3202*	*3619*	*3377*
16, F5	*1229*	*1749*	*2296*	*2564*	*2857*	*2330*	*2498*	*2914*	*3200*	*3617*
17, F6	*4*	*1229*	*1749*	*2296*	*2564*	*2857*	*2330*	*2498*	*2914*	*3200*
Total 12-16	10703	11804	12553	13171	13807	14567	15612	16359	16793	16636
Total 12-17	10707	13033	14302	15467	16371	17424	17942	18857	19707	19836

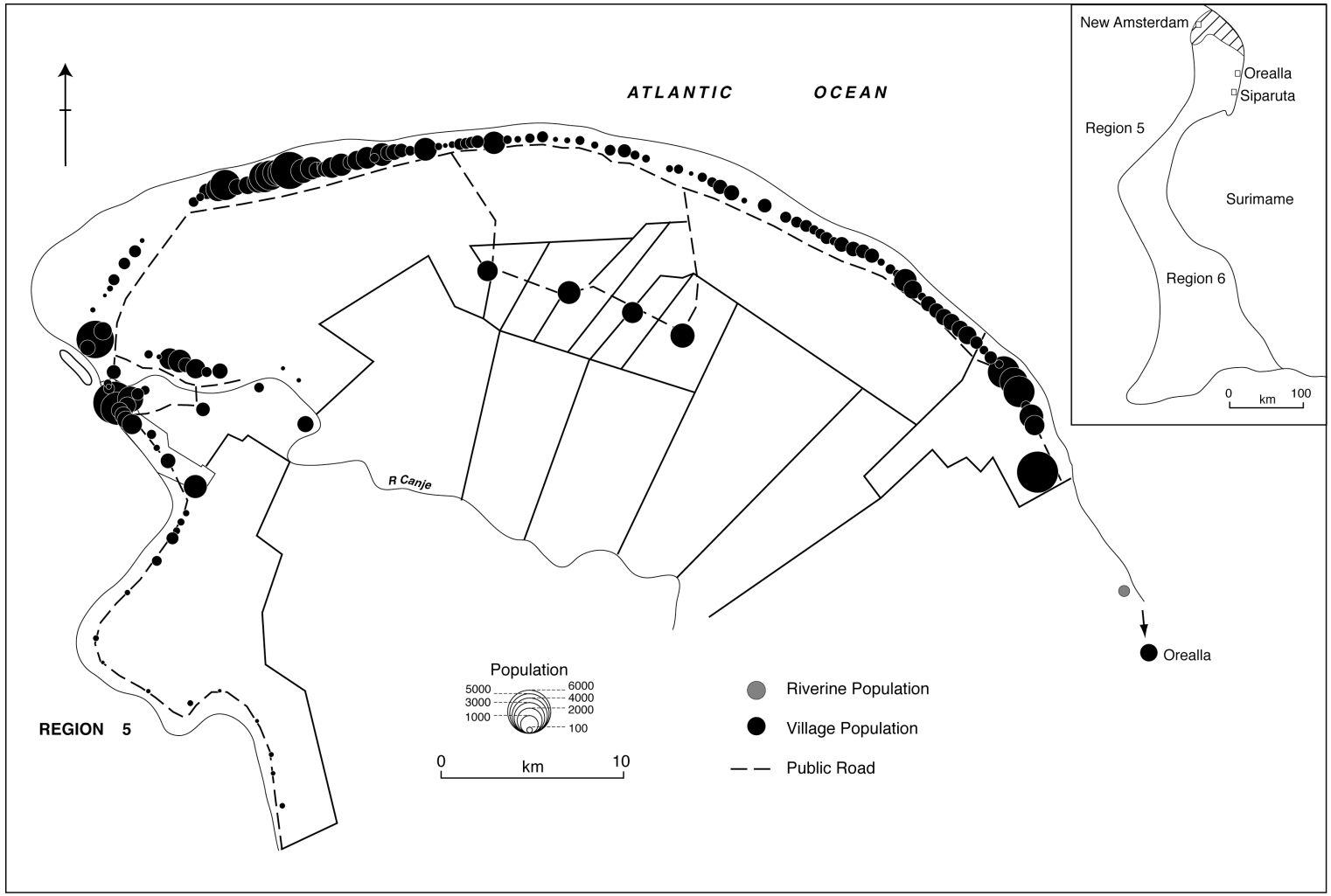
No data was available for migration, which was not taken into account in this projection.
No figure could be projected for F1, 2010, the figure entered is the mean of F1 populations from 2001-2009.
Totals are shown for age groups 12-17 (form 1 to form 6) and 12-16 (form 1 to form 5).

Appendix 5: Life Table from September 2001 School Enrolment Assuming 75% Demand

Age/class	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
4, N1	3358	-	-	-	-	-	-	-	-	-
5, N2	3250	3354	-	-	-	-	-	-	-	-
6, Pa	3380	3250	3353	-	-	-	-	-	-	-
7, Pb	3621	3379	3249	3352	-	-	-	-	-	-
8, S1	3204	3621	3379	3249	3352	-	-	-	-	-
9, S2	2917	3203	3620	3378	3248	3351	-	-	-	-
10, S3	2500	2916	3202	3619	3377	3247	3350	-	-	-
11, S4	2332	2500	2916	3202	3619	3377	3247	3350	-	-
12, F1	*2859*	*1749*	*1875*	*2187*	*2402*	*2714*	*2533*	*2435*	*2513*	*2363*
13, F2	*2566*	*2859*	*1749*	*1875*	*2187*	*2402*	*2714*	*2533*	*2435*	*2513*
14, F3	*2298*	*2566*	*2859*	*1749*	*1875*	*2187*	*2402*	*2714*	*2533*	*2435*
15, F4	*1751*	*2298*	*2566*	*2859*	*1749*	*1875*	*2187*	*2402*	*2414*	*2533*
16, F5	*1229*	*1749*	*2296*	*2564*	*2857*	*1747*	*1873*	*2185*	*2400*	*2412*
17, F6	*4*	*1229*	*1749*	*2296*	*2564*	*2857*	*1747*	*1873*	*2185*	*2400*
Total 12-16	10703	11221	11345	11234	11070	10925	11709	12269	12295	12256
Total 12-17	10707	12450	13094	13530	13634	13782	13456	14142	14480	14656

No data was available for migration, which was not taken into account in this projection.
No figure could be projected for F1, 2010, the figure entered is the mean of F1 populations from 2001-2009.
Totals are shown for age groups 12-17 (form 1 to form 6) and 12-16 (form 1 to form 5).

Map 1: Population in Region 6



Map 2: Primary and Secondary Educational Facilities in Region 6