



THE AUSTRALIAN NATIONAL UNIVERSITY

E P R E S S

Out of the Ashes: Destruction and Reconstruction of East Timor

Abstract for chapter 3

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'East Timor: education and human resource development' examines the state of education at the time of Indonesian invasion, the educational developments since 1975, the structure of employment, and the issues ahead.

The state of education as left by the Portuguese is noted as are the changes brought about by the Indonesian government. There is a comparison of the literacy rate between those people born in East Timor and non-native East Timorese. The lack of tertiary education and its effect upon the population is considered, as is the language debate. Inequalities in employment opportunities are highlighted. The lack of qualified teachers is a concern; few East Timorese are qualified to teach above the primary school level. The lack of job opportunities, generally for the better educated, is frustrating while considerable employment is needed to rebuild the structure of government and infrastructure of the country.

In order for the East Timor economy to grow, the country has to develop strongly in areas such as manufacturing and tourism, both of which will require high levels of education and human resource development.

Keywords

education, educational attainment, employment, enrolment ratios, job shortages, literacy rate, primary education, secondary education, teacher shortages, tertiary education, University of East Timor

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East Timor: education and human resource development

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The educational situation at the time of Indonesian invasion

The Portuguese colonialists did very little to educate the population of East Timor. Until almost the very end of their 450 years of colonisation, education was established solely to meet the demand for colonial administrative officials. The Portuguese left the country with an embryonic education system, and a predominantly illiterate population. The literacy rate at the end of Portuguese rule is estimated to have been only 10 per cent (Saldanha 1994:60). Since literacy rates for the adult population as a whole reflect the educational situation prevailing decades before the present, the adult literacy rate for East Timor in 1990 (33 per cent, compared with 79 per cent in Indonesia excluding Eastern Indonesia) also reflects the very limited efforts of the Portuguese to provide education.

The Portuguese left educational activities largely in the hands of the Catholic church, which established a number of schools (*colegio*). The colonial administration began to give more attention to education following a revolt in 1959. The number of elementary school students rose from 4 898 in that year to 27 299 a decade later, and a further sharp rise was recorded to 57 579 in 1971-72 (Saldanha 1994:Tables 2.3, 2.4). The latter figure must be viewed with some suspicion, however, because the figure the year before was only 32 397. Pupil-teacher ratios were very high, rising from the mid-30s in the early

1960s to over 50 from 1968-69 onwards, a figure so high that it has serious implications for the quality of education. Teachers were very hard to find, because few Timorese had more than a primary school education, and recruitment of teachers from Portugal or from the more advanced colonies met with the obstacles of lack of funds and lack of enthusiasm on the part of the teachers to go to East Timor.

The first secondary school was only opened in 1952. Enrolments remained extremely small, with numbers fluctuating in the range from 200 to 800 students during the course of the 1960s. There was no provision of education at the tertiary level.

Educational developments since 1975

The greatest source of pride for Indonesia since its annexation of East Timor in 1975 has been its provision of basic education. The number of schools has multiplied, and every village had a primary school by about 1985.¹ Table 1 shows the trend in the number of schools, teachers and pupils at the primary education level, and Table 2 shows the trends for high school and tertiary education. The number of primary school pupils in the first two or three years of Indonesian rule appears to have been lower than in the final years of Portuguese rule, presumably reflecting the difficulties the Indonesians experienced in imposing order and initiating a new system of education. But the numbers were building up quickly by the beginning of the 1980s.

In the case of both primary and secondary education, there were impressive increases in number of schools and of student numbers through the 1980s, but decreases in student numbers beginning in the late 1980s in the case of primary education and after the school year 1990-91 in the case of lower and upper secondary education. These decreases, occurring in the face of continuing increases in the numbers of children in the relevant age groups, imply significant declines in school enrolment ratios in the early 1990s.

¹ This is a rough estimate. There are 442 villages (*desa*) in East Timor. By 1985 there were 497 primary schools in the province. Even allowing for the fact that many of these primary schools were in the towns such as Dili and Baucau, the figures suggest that in 1985 or shortly thereafter, there would have been a primary school in every village.

TABLE 1: East Timor – Trends in primary school education, 1976-93

<i>School year</i>	<i>No. of schools</i>	<i>No. of teachers</i>	<i>No. of new pupils ('000)</i>	<i>Total no. of pupils</i>	<i>Pupils per school</i>
1976-77	47	499	10.5	13.5	287
1977-78	107	614	18.8	23.0	215
1978-79	202	959	22.4	41.5	205
1979-80	208	1 610	13.3	59.1	284
1980-81	293	1 515	21.7	68.7	234
1981-82	339	1 821	52.1	77.6	229
1982-83	376	2 226	38.0	90.4	241
1983-84	400	2 446	38.6	99.4	249
1984-85	410	2 614	31.7	100.6	245
1985-86	497	2 910	31.3	111.2	224
1986-87	540	3 359	31.4	126.7	235
1987-88	559	3 723	27.2	129.6	232
1988-89	565	4 894	27.9	105.1	186
1989-90	574	4 739	20.9	100.4	175
1990-91	559	4 574	28.9	95.9	171
1991-92	590	4 653	21.1	104.4	177
1992-93	654	5 260	24.1	110.6	169
1993-94	652	6 656	27.4	128.0	196

Source: Timor Timur Dalam Angka (1993:Table 4.1.3).

The 1990 Population Census and the 1995 Intercensal Survey (*Supas*) are the most up-to-date and complete sources of data on the educational composition of the population of East Timor. Tabulations from these sources with regard to literacy, school enrolment, and educational attainment are available in Jones and Raharjo (1995:Chapter 8) and Tandjung and Sutomo (1998). They indicate a rapid improvement over time in all these measures, but a continuing lag compared with other provinces of Indonesia. For example, in 1995, 33.1 per cent of the adult population of East Timor (aged 15+) had completed primary school or proceeded further in their education, compared with 65.2 per cent in Indonesia. In East Timor, 19.9 per cent had completed junior secondary school or more, compared with 33.1 per cent in Indonesia. But these figures partly reflect the limited provision of education during the Portuguese period. The rise in educational attainment between the cohorts educated mainly in the 1960s and 1970s and the cohorts educated mainly in the 1980s and 1990s was very sharp. A relevant comparison

TABLE 2: *East Timor – Trends in secondary and tertiary education, 1976-93*

<i>School year</i>	<i>No. of lower secondary schools</i>	<i>No. of lower secondary students</i>	<i>No. of upper secondary schools</i>	<i>No. of upper secondary students</i>	<i>No. enrolled in tertiary education</i>
1976-77	2	315	-	-	-
1977-78	9	926	-	-	-
1978-79	14	1 041	-	-	-
1979-80	15	1 248	-	64	-
1980-81	19	2 474	1	225	-
1981-82	23	4 272	1	454	-
1982-83	28	5 453	2	977	-
1983-84	35	8 247	2	1 541	-
1984-85	43	9 836	2	2 770	-
1985-86	57	11 735	7	5 310	443
1986-87	71	22 905	17	7 599	675
1987-88	81	26 787	19	10 889	799
1988-89	90	28 342	22	10 088	969
1989-90	90	28 964	31	14 574	1 210
1990-91	94	31 482	35	19 634	1 383
1991-92	97	24 261	38	17 177	2 037
1992-93	101	21 972	42	17 947	2 199
1993-94	103	21 779	43	18 303	2 658

Source: *Timor Timor Dalam Angka* (1993:Tables 4.1.4, 4.1.6, 4.1.7, 4.1.23, 4.1.55).

is with the neighbouring province of East Nusa Tenggara (NTT). According to data in the 1995 SUPAS, East Timor was ahead of NTT in the proportion of the 20-29 year age group who had completed at least lower secondary school (35.5 per cent in East Timor; 30.6 per cent in NTT). But East Timor lagged far behind NTT in the same statistic for the age group 40-59: 6.1 per cent for East Timor; 12.7 per cent for NTT. This age group passed through the school-going years during Portuguese rule in East Timor.

Neither the numbers in school shown in Tables 1 and 2 nor the figures on educational attainment just cited differentiate between native East Timorese and the children of non-East Timorese (for example the children of transmigrants, government servants and the military). Since virtually all non-East Timorese fled prior to or following the 1999 referendum into East Timor's future, and few are likely to return to East Timor after independence, the relevant information in relation to East Timor's prospects for future development concerns the

TABLE 3: East Timor – Proportion of population illiterate, by age group and birth-place of head of household, 1990

Age group	Head born in East Timor		Head born elsewhere	
	Males	Females	Males	Females
15-19	21.6	31.2	5.2	5.7
20-24	35.0	56.6	2.3	6.2
25-29	53.2	74.6	2.0	9.1
30-34	62.5	83.9	3.2	5.0
35-39	72.0	88.5	4.2	19.6
40-44	82.2	93.7	8.1	12.1
45-49	84.2	93.6	0.0	26.7
50-54	85.9	93.6	8.8	40.7
55-59	89.4	94.8	14.9	51.0
60-64	89.4	96.6	37.6	60.8
65-69	88.8	94.5	22.2	35.5
All ages 15-69	57.3	73.0	3.5	9.2
Number	193 467	193 219	26 829	15 602

Source: Computed from data tapes, 1990 Population Census.

schooling of the native East Timorese. It has been possible to extract such data from the 1990 Population Census and the 1995 SUPAS by tabulating the educational data according to whether the head of household was born in East Timor or not. Tables 3 and 4 compare the educational attainment, enrolment ratios and literacy for those living in such households and those living in households where the head was not born in East Timor.

Table 3 shows the proportions illiterate in 1990 in households where the head was born in East Timor and in other households. The differences are striking. Among the East Timorese population, illiteracy is extremely high in all age groups aged 40 and over, particularly among women. It only falls below 50 per cent in the 15-24 year age group. By contrast, illiteracy among non-native East Timorese is much lower; for males, percentages illiterate fall to single digit figures at all ages below 55-59, and for females at all ages below 35-39.

Educational attainment reflects the same kinds of extreme differences between native East Timorese and non-Timorese. Table 4 shows the 1995 data on educational attainment of persons living in households where the head of household was born in East Timor. The most striking fact is that even in the age group 15-19, which grew up under Indonesian administration, slightly less than half of both males

and females had completed primary education. The equivalent figure for the non-native East Timorese (not shown in the table) was 95 per cent for both sexes. The proportion with senior secondary education or above was very low for the East Timorese, though it has been increasing rapidly over time. At ages 25-29 this proportion reached 23 per cent for males, though it was less than nine per cent for females. In striking contrast, more than half of all adult males, and almost half of all adult females, living in households where the head was not born in East Timor had senior high school education and above.

Tertiary education

It is essential to have a core of well-educated people in any country to provide leadership, professional services in education, medicine and other fields, and to fill the senior positions in the public service. There were very few well-educated East Timorese at the time of incorporation into Indonesia, as no institutions of higher education had been developed under Portuguese rule. During the Indonesian period, higher education institutions were developed. The University of East Timor (UNTIM) was established in 1992, financed not by the central government but by the provincial government, with assistance from Catholic foundations. It was affiliated with the University of Gadjah Mada. By 1992 it offered only four courses: agricultural sciences, English, social and political science, and pedagogy. The quality of the education offered at this university was very questionable (Beazley 1999:52) and its students numbered only in the hundreds. In 1995, there were 436 students registered at the Open University in Dili, and there was also a polytechnic with a capacity of 100 students.

Thousands of East Timorese students have also gone to study in Indonesian universities or abroad, most of them on government scholarships. Many of them were reported to drop out, and on their return often had to wait for months or years for a job. As a result, many sought jobs outside East Timor (Beazley 1999:52-53). There is certainly no evidence from Table 4 that many of them had returned to East Timor: fewer than 500 persons living in households where the head was born in East Timor had completed tertiary education.

TABLE 4: Proportion of persons according to educational attainment, ages 15-69, 1995 (head of household born in East Timor)

Age group	Male					Female				
	None or some primary	Complete primary	Lower secondary	Upper secondary	Tertiary	None or some primary	Complete primary	Lower secondary	Upper secondary	Tertiary
15-19	52.9	32.1	13.8	1.3	0.0	52.4	32.1	13.5	2.0	0.0
20-24	44.6	21.8	18.9	14.2	0.5	58.4	17.7	13.4	10.4	0.1
25-29	48.6	15.2	12.4	23.1	0.7	70.1	13.0	7.9	8.6	0.4
30-34	67.5	13.5	4.6	13.0	1.4	86.3	7.2	2.8	3.3	0.5
35-39	77.6	11.6	4.9	5.3	0.5	91.5	5.0	1.9	1.6	0.0
40-44	80.1	12.6	3.7	3.2	0.4	93.2	3.5	1.3	1.7	0.2
45-49	92.6	4.6	1.4	1.2	0.2	98.2	1.6	0.0	0.2	0.0
50-54	94.7	3.9	1.4	0.0	0.0	98.2	0.9	0.7	0.2	0.0
55-59	94.9	4.4	0.7	0.0	0.0	98.1	1.6	0.3	0.0	0.0
60-64	97.5	1.3	0.8	0.4	0.0	99.5	0.5	0.0	0.0	0.0
65-69	98.5	1.5	0.0	0.0	0.0	99.4	0.0	0.6	0.0	0.0
Total	68.6	14.7	8.0	8.2	0.4	79.4	10.8	5.7	3.9	0.2
Number	142 017	30 467	16 625	16 878	931	164 772	22 503	11 794	8 052	334

Source: Computed from data tapes, 1995 Intercensal Population Survey.

TABLE 5: *Proportion able to speak Bahasa Indonesia, persons living in households where the head was born in East Timor*

<i>Age group</i>	<i>Male</i>	<i>Female</i>
15-19	85.0	77.4
20-24	78.3	59.3
25-29	64.6	43.2
30-34	57.5	31.7
35-39	46.8	27.1
40-44	34.7	16.8
45-49	30.5	15.4
50-54	25.0	12.3
55-59	20.5	8.9
60-64	16.0	9.1
65-69	20.0	8.7
All ages	56.4	39.4

Source: Computed from data tapes, 1990 Population Census.

Language

Language is a key issue for the future of East Timor. It has to be resolved whether the national language will be Tetun, Portuguese, Indonesian or English. Each have their particular claims to value. One important issue is the proportion of the population that can speak each of these languages. In the case of Bahasa Indonesia, data are available from the 1990 Population Census. Table 5 presents these data, for the East Timorese whose head of household was born in East Timor. Clearly, there is a strong generational difference in the ability to speak Bahasa Indonesia. The younger cohorts, most of whom were taught in school in the Indonesian language, have high proportions able to speak Bahasa Indonesia, but this proportion drops off sharply to only 35 per cent for males and 17 per cent for females at age 40-44, and even lower at older ages.

The structure of employment

The East Timorese are heavily concentrated in primary industry (agriculture, fishing, animal husbandry, etc.). Table 6 shows the striking differences between their occupational structure and that of non-East Timorese in 1990. Non-East Timorese were heavily concentrated in clerical, professional and sales occupations, with about 10 per cent

TABLE 6: East Timor – Proportion of workers in broad educational categories, by birthplace of head of household, 1990

Broad occupational category	Head born in East Timor		Head not born in East Timor	
	Male	Female	Male	Female
Professional	1.5	1.2	13.9	24.1
Administration and managerial	0.1	0.0	0.8	0.3
Clerical	6.0	1.7	43.0	23.8
Sales	2.9	4.7	11.9	28.7
Service workers	2.5	0.9	6.8	8.3
Agriculture	81.1	80.8	8.7	11.7
Production workers	5.9	10.7	14.9	3.1
Total	100.0	100.0	100.0	100.0

Source: Computed from data tapes, 1990 Population Census.

in agriculture, presumably most of them transmigrants. This occupational structure reflects the concentration of non-East Timorese in government service (including teaching, nursing, and many clerical occupations), and in trading and marketing activities. An extraordinarily low proportion of East Timorese workers were in professional, clerical and sales occupations, presumably reflecting their low levels of education, a bias in favour of outsiders in some government service activities, and the domination of markets and retail trade by immigrants such as the Buginese and Makassarese from South Sulawesi.

Issues – looking ahead

Shortage of teachers and quality of education: A high proportion of teachers in East Timor shortly before the referendum of August 1999 were non-East Timorese. A 1999 report stated that East Timorese constituted less than 12 per cent of teachers in the province (427 out of 3698). The other teachers came principally from Java (1205) and NTT (1353) (Beazley 1999:49). Another report stated that only two per cent of junior and senior high school teachers (67 out of 3362 teachers) were East Timorese (*Kompas* 8/3/1999). The rapid development of education clearly required recruitment of teachers from outside the region, but there were complaints that these teachers did not understand the local population, did not speak a local language, and lacked cultural sensitivity.

Many children say that Indonesian teachers are unsympathetic to them, that they have to pay a 'fee' to attend school, and even a bribe to go up in class. Teachers themselves complain about the children having short concentration spans, coming late to class, not wearing uniform, being disobedient and undisciplined, being only interested in talking about East Timorese independence, and of walking out of class ... The conclusion which the teachers and officials often come to is that East Timorese students do not want to learn (Beazley 1999:49).

Frustrations of school pupils were undoubtedly related to dissatisfaction with continuing Indonesian rule, as well as to the shortage of jobs for those with education, to be discussed below. The lack of discipline reached serious levels in some schools, with teachers facing threats of violence from students if they were not given the grades they wanted or were not promoted. In some cases teachers feared for their lives (Tirtosudarmo and Handayani 1993:485-486). The same kinds of concerns were widely expressed in 1998 and 1999 (*Kompas* 8/3/1999, 9/3/1999). In this situation, quality of education was the loser, and the NEM (*Nilai Ebtanas Murani*: end of school level examination scores) scores for East Timor certainly indicated a poorer performance by students there than elsewhere in Indonesia.

Looking ahead, the supply of school teachers is clearly a major concern. Few East Timorese are qualified to teach above the primary school level, and it is unrealistic to expect that more than a handful of the non-Timorese teachers would be interested in returning after independence (except, perhaps, some of the quite large numbers of former teachers from West Timor). Special recruitment of teachers from abroad is likely to be needed, via development assistance agencies and non-government organisation (NGO) groups, including the Catholic church. One aspect of the problem concerns the language of instruction. The choice between Tetun, Indonesian, Portuguese or English as a national language has yet to be settled, and similarly for the language (or languages) of instruction in schools.

Shortage of jobs for the high school educated: The Indonesian authorities in East Timor always had trouble coming to terms with the fact that it was the young people, born since Indonesian occupation of East Timor and given educational opportunities, who were the most vocal critics of the regime. There were many reasons for this, of course, but one

source of deep frustration was the lack of job opportunities for the better-educated (Mubyarto and Soetrisno 1991:55; Saldanha 1994:259). This was partly the result of a perceived preference for non-Timorese in civil service positions. If so, it will cease to be a factor under an independent government. Nevertheless, as noted by one observer in 1989, 'there are almost 25 000 high school students in the province, but the government can employ at most only 50 new civil servants each year' (Soesastro 1989:219). The most basic issue is the heavily agricultural nature of the East Timor economy, and the small modern sector. The need to rebuild a structure of government administration, as well as the need to rebuild infrastructure after the destruction wreaked in the post-ballot violence will provide considerable employment, provided that enough foreign aid is provided. Once the basic infrastructure has been repaired, and a new government formed, there will be a need for teachers, doctors, nurses, other professionals and clerical workers. This should provide opportunities for the better-educated Timorese for some time to come – again, with the proviso that funds to employ them must come from somewhere.

After some years, assuming that educational enrolments can be raised again to the levels reached in the later stages of the Indonesian administration, the problem of limited job opportunities will re-assert itself. Unless the East Timor economy is able to develop more strongly in areas such as manufacturing or tourism, it will fail to provide many job opportunities for the better-educated. And as citizens of a small, independent country, educated East Timorese will no longer have the option of looking for work elsewhere in Indonesia.²

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² Under the Indonesian administration, not only could East Timorese spontaneously look for jobs outside the province, but the Yayasan Tiara of the Department of Manpower had a systematic program of sending East Timorese to other parts of Indonesia to work (Saldanha 1994:264).

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