

***BIRTH OF A NATION:
POVERTY AND DEVELOPMENT IN TIMOR-LESTE***

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Working Paper 213
June 2005**

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Birth of A Nation: Poverty and Development in Timor-Leste

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Abstract

Timor-Leste is among the world's poorest countries and poverty reduction is high on the country's policy agenda. The National Development Plan emphasizes a poverty reduction strategy based on economic growth and a focus on improvements in the health and education sector. This paper describes and analyses poverty and development in Timor-Leste. We find that progress has taken place but the situation remains troublesome with high poverty, low levels of education and large remaining problems in the health sector. Hence, further efforts are needed to improve upon the situation. Economic growth is fragile and too low to generate the necessary resources for such policies. However, unexpected oil revenues seem to be invested wisely and might provide the required means for sustainable poverty alleviation.

JEL codes: I18; I28; I31

Keywords: Timor-Leste; Economic Development; Poverty; Education; Health

Introduction

Timor-Leste is the youngest nation in the world. The birth of the country was both protracted and difficult. After twenty-five years of Indonesian occupation, the referendum held in 1999, which indicated that an overwhelming majority of the Timorese were in favor of independence, ended in widespread human and material destruction. Timor-Leste, already one of the poorest countries on earth, lost at least one-fourth of its GDP and the production apparatus was in shambles (e.g. Shoesmith, 2003, pp.233-34). The country has recovered comparatively well after 1999, with the support of foreign donors and direct

administration by the United Nations, but it remains very poor. As many as 40 percent of all its inhabitants live in poverty (spending less than USD 0.55 per day). Consequently the development strategy of Timor-Leste places great stress on poverty reduction. Education, health, agriculture and transport and communications are the priority sectors, and expenditures related to poverty reduction account for almost 70 percent of the total budget expenditures.

Fortunately, it seems that recent sharp revenue increases could help Timor-Leste achieve its development goals in the longer run. The domestic tax base is very small and until late 2004 Timor-Leste stood out as a country that was heavily dependent on donor funds for bridging the gap between budget expenditures and revenues. Presently, however, the country is benefiting from vastly increased oil revenues from the Bayu Undan field in the Timor Sea, and a petroleum fund modeled on the Norwegian precedent is being created. This will in the longer run guarantee a perpetual income stream that can be spent every year, but the lack of sufficiently trained personnel on all levels of the administration has made actual expenditure fall short of the budgeted levels.

The present paper focuses on the number one problem of Timor-Leste: poverty. We will begin by a brief presentation of the government poverty reduction strategy before examining the available information on poverty in the country, as it emerges out of three different surveys carried out in 2001. Next the situation with respect to education and health sectors is singled out for special treatment, since this has been made the center of attention of the government in its efforts to combat poverty. The final sections will briefly sketch the economic situation of Timor-Leste and the recent effort to set up a financial framework that can be used in fight against poverty.

The Poverty Reduction Strategy in Timor-Leste

Poverty reduction has high priority on the policy agenda of Timor-Leste. In the National Development Plan from 2002 (Planning Commission, 2002), a development strategy was formulated with two overriding goals: to reduce poverty in all sectors and regions of the nation and to promote economic growth that is equitable and sustainable, improving the health, education and well-being of everyone. The strategy includes a host of policies to achieve these goals, ranging from increased participation of the poor in the political decision making process and in the modern economy, to provision of basic social services. The government has produced a very detailed plan for budget expenditures in order to meet the poverty reduction goals. An explicit ranking has been made of the various sectors that appear in the budget. The most important one is education. Second in importance is the health sector. Third is agriculture and related activities and in fourth place we find transport and communications. The sectors related to poverty reduction account for approximately two-thirds of the total budget expenditures (Ministry of Planning and Finance, 2004e).

There is no doubt about the fact that the Timorese government considers poverty to be the country's number one problem. The entire development strategy rests on the explicit premise that poverty reduction is the primary task for the economic and social policy.¹ The development plan specifies a number of sub-goals and development indicators that are to serve as measures of what has been achieved. The degree of concretion in the goals and their operability, however, varies strongly. In some cases it will be easy to see what has been achieved. In other cases it may be very difficult to produce the necessary information.

During 2004 Sector Investment Programs (SIPs) have been developed as a means for implementing the National Development Plan. The SIPs formulate detailed and comprehensive investment programs in 15 different sectors: health, education, agriculture,

¹ One possible explanation could be the relatively high political awareness among the population. See King (2003).

civil society, etc. These programs define where and when different investments are needed. The SIPs help the government to identify investment opportunities and to prioritize between investments within and between sectors. Hand in hand with the National Development Plan goes the decision to adopt the United Nations Millennium Development Goals: quantitative development targets to be reached by 2015 in a number of areas including poverty, education, infant mortality, maternal mortality, primary health care, infectious disease and gender disparities.

Poverty in Timor-Leste

Without an adequate knowledge of the particular features of the poverty problem of Timor-Leste it is hardly possible to provide any meaningful discussion of how poverty can be eradicated or at least mitigated in this specific case. The following sections are therefore intended as a bird's eye view of the poverty situation in Timor-Leste as it appeared more or less at the time of independence in May 2002.

The situation facing Timor-Leste is difficult. The country has the fourth lowest GDP per capita in East Asia, only slightly above Papua New Guinea, Laos and Cambodia (UNDP, 2003, p. xiii). It comes as no surprise that Timor-Leste is considered to be one of the least developed countries in the world. For instance, it is ranked number 158 out of 177 countries according to the Human Development Index for 2002, making it the lowest-ranked country outside of Sub-Saharan Africa (UNDP, 2004, p. 142). A substantial effort to map poverty in Timor-Leste was undertaken in 2001. The effort was divided into three separate components: a Suco Survey, a Household Survey and a Participatory Potential Assessment.

The Suco Survey

The Suco survey (ETTA et al., 2001) was carried out in all 498 sucos.² The availability of food varied substantially across the year due to the pattern of harvesting. No less than 78 percent of all sucos reported that families did not have enough food in January. For December the figure was only slightly lower: 70, and both February (44 percent) and November (43 percent) were also months of considerable stress. Maize is normally harvested between February and April and rice from April to October, so the critical period is between the end of the rice harvest and the beginning of the maize harvest.

The availability of basic infrastructure displayed severe deficiencies. Only 20 percent of all aldeias were electrified, as compared to 29 percent before the destructions, not a terribly high figure either. Electricity was available for an average of 6 days per week and 13 hours per day. Water in most cases (over 60 percent) had to be taken from rivers, streams or wells, and only 7 percent of the sucos reported that the main source of drinking water was a pipe to the house. Transportation also proved a problem. 80 percent of all posto capitals were mainly reached on foot from the suco capitals. Buses or mini buses were used in 64 percent of the cases when it came to going from the suco centers to the district capitals.

The situation varied considerably between geographical areas. Both the western and the eastern districts were generally better off than the districts located in the central part of the country and the lowland districts outperformed the highland ones. The difference between rural and urban areas was found to be small. The former ranked higher in terms of wealth while the latter were more privileged in terms of access to schools, roads and urban infrastructure. Rice growing areas tended to be better off than other districts.

² Timor-Leste is divided administratively into 13 distritos, 65 postos, 498 sucos and 2,336 aldeias.

The Participatory Potential Assessment

The idea behind the Participatory Potential Assessment (UNDP et al, 2002) was to complement the more traditional poverty surveys with an assessment of the qualitative dimensions of poverty, the causes and consequences of it and the potential means of poverty alleviation as seen by the inhabitants of the aldeias themselves. The assessment covered 48 aldeias. In each aldeia 12 participants were picked in order to arrive at a *composite*, not individual, community assessment based on consensus.

Table 1 presents the rankings of the aldeias in terms of ten quality of life indicators. Each indicator may be thought of as ranging from 0 to 100 percent, with 0 as the lower end and 100 as the (subjective) maximum possible. In practice, only four categories were used: good (above 75 percent), satisfactory (50-75 percent), average (25-50 percent) and poor (below 25 percent). These categories are of course very vaguely defined, but they serve to provide an indication of how the communities perceived their situation.

-- Table 1 about here --

It is completely clear from the table that the vast majority of the aldeias thought of themselves as poor. The Good category was never employed and the Satisfactory category only in two isolated instances and even the Average was used more frequently than the Poor classification in only three instances out of ten.

Poverty was seen as virtually synonymous with the absence of infrastructure, like roads, schools, health facilities and water supply, because this absence made it much more difficult for people to cope with their survival needs. Poverty, however, also had a psychological aspect, because the poor perceived that they were treated rudely by the privileged and the government officials. No support was forthcoming from the better-off

strata in society. On the contrary, there was a widespread feeling of exploitation stemming from the vulnerability connected with poverty. Finally, it was felt that the government perceived of the poor as a burden and not as an asset that could be developed.

The situation was, however, not perceived as hopeless. Timor-Leste has untapped natural resources, and a subsistence economy in place. The struggle for independence during more than twenty-five years has done a lot to unite and galvanize a people that is willing to work hard to fulfil its development aspirations. Finally the strong tradition of decentralized governance has made the Timorese people organize itself quickly at the suco and aldeia levels. Development will, however, not come about without political support. It was felt that the country needs a clearly articulated development vision. Responsibilities have to be delegated to the community.

The Household Survey

The Household Survey (The Timor-Leste Living Standard Measurement Survey) was a sample survey carried out among 9,113 people in 300 aldeias (one percent of the population) (Democratic Republic of Timor-Leste et al. 2003, World Bank, 2003). The basic welfare indicator employed in the Household Survey was per capita total household expenditure, assuming that families allocated resources equally among their members. The two most important poverty measures used were: (1) the head-count index, i.e. the share of the population whose per capita consumption is below the poverty line, and (2) the poverty gap, i.e. the average expenditure shortfall of the poor relative to the poverty line. The poverty line itself was defined by using 'standard practice in East Asia' (World Bank, 2003, p. 30), taking 2,100 calories per person per day as the basic nutritional requirement and using a reference average food bundle based on the food habits of the lowest second to fifth deciles of the

population in terms of consumption, scaling this bundle to ensure that it provided the 2,100 calories per day and person.

For the non-food items to be added to the minimum food consumption two different procedures were used. The first one (the 'lower' poverty line) looked at the share of non-food expenditures of people whose total expenditure was just enough to reach the food poverty line defined by the 2,100 calories. The argument was that this provides a 'minimum' necessary allowance for non-food spending, since the latter has in fact been substituted for spending on basic food needs. The second approach (the 'higher' poverty line) was based on households whose actual spending on food items did in fact reach the food poverty line, adding their actual non-food spending. This yielded an upper poverty line of USD 15.44 per capita per month and a lower poverty line of USD 14.41, with 40 percent of the population below the line in the first case and 34 percent in the second. In terms of the upper poverty line the poverty gap amounted to 11.9 percent, which in turn meant that an income transfer of USD 1.84 per month and person, and about 5 percent of GDP, would be needed to bring all the poor to an income equal to the poverty line.

Poverty is not evenly spread in Timor-Leste but its incidence varies according to a number of criteria. Thus, household size matters. Among households with only one or two members less than 10 percent are poor, but in five-person households almost 40 percent are, and when a household has six members the probability that it is poor is over 50 percent. Also households with many dependent members (below 15 or above 64 years of age) relative to members of working age (15-64) tend to be poorer than those with few.

The relation between education and poverty is very clear-cut. The incidence of poverty drops markedly and monotonically as the number of school grades completed increase. Among those with no schooling or just pre-school the incidence is over 47 percent, among those with a complete primary education the figure has fallen to 36.5 percent, those

with a junior secondary education fare a bit better: 32 percent and the real big drops come after senior secondary school (14 percent) and tertiary education (less than 6 percent).

Related to schooling is employment. Members of families where the head is in the labor force are less prone to be poor than when the head does not participate. Among those in the labor force individuals in households where the head worked only on the farm were considerably poorer (48 percent poor) than those whose heads were in wage employment (19 percent), household business (17 percent) It should be noted that the most common category is the farming only one. Almost 70 percent of all Timorese live in that kind of family, with no, or only small, possibilities of supplementing their farm income with other sources.

This finding points toward the importance of farm assets. When no supplementary jobs exist, income to a very large extent becomes a function of the type and amount of assets owned. It goes virtually without saying that land is the most important asset for farm households, i.e. for three-fourths of the Timorese population. Landownership is widely spread. Six out of seven people live in households with access to land and it is claimed that 95 percent of this land is owned by the households, as little as 4 percent being in dispute. Farms are on average very small, with a median area per person of only 0.22 hectares. Only 5 percent had access to more than one hectare. Virtually all the farm land (95 percent) is cultivated, only one-fifth is under irrigation and less than 40 percent of the area is flat. Among the cultivating families poverty is negatively related to farm size.

The second most important household asset in Timor-Leste is livestock. Most households in the country keep animals, nine out of ten in the countryside and seven in ten in the cities, but the value of the livestock in the latter households is only about one-half of that in the former. Livestock ownership in the cities also seems to differ from rural ownership in another sense. In the countryside livestock is a sign of wealth. People without livestock are

more likely to be poor (53 percent) than those with (43 percent). In the cities the opposite applies. Among those without livestock only 12 percent are poor against almost 30 percent of the livestock owners. Thus, the route out of poverty seems to be one that takes you out of both farming and livestock-raising, into wage employment or business.

Geography is an important determinant of poverty as well. The East is less poor (30 percent) than the West (47 percent) or the Center (41 percent). The rural-urban division is one of the most important determinants. Poverty is by and large a rural phenomenon in Timor-Leste. While less than 25 percent of all urban households are poor the corresponding figure for rural areas is over 44 percent, and no fewer than six out of seven poor live in the countryside.

The Household Survey also produced some inequality measures. The poorest 40 percent of the population accounted for only 18 percent of the total expenditures, on average USD 15.49 per month and person, just above the poverty line, while the expenditure share of the top 40 percent amounted to approximately two-thirds, or a monthly per capita figure of USD 18.22 on average. The Gini coefficient for the country as a whole was 0.37, slightly higher in urban areas and just above 0.34 in the countryside. The West was significantly less unequal than the rest, with 0.31, against 0.39 in the Center and 0.35 in the East.

The evidence with respect to gender does not indicate any systematic differences in terms of poverty between men and women. It should, however, be kept in mind that this finding is based upon the assumption that consumption is equally distributed within the households.

Education

Education was by and large neglected during the Portuguese colonization (Saldanha, 1994, p. 60). Improvements took place during the Indonesian occupation, but Timor-Leste still lagged

behind the rest of Indonesia (World Bank 2004b, Annex 1.4 and 1.5). Today, education is high on the policy agenda in Timor-Leste. For instance, more than 50 percent of all civil servants are engaged in education. However, despite the attempts to improve education, there are large remaining problems: although school participation rates are increasing, 25 percent of all children are still not attending schools, dropout rates are high, and only 50 percent of children complete primary school at the right age (Democratic Republic of Timor-Leste et al., 2003, pp. 62-75). The relatively poor state of education in Timor-Leste is also clear from a comparison with other countries in the region, as demonstrated by Table 2.

--Table 2 about here--

The literacy rate is about 60 percent in Timor-Leste, which is very low in the regional perspective. Secondly, primary and secondary school enrolment is lower in Timor-Leste than in all or most other Southeast Asian countries. Figures on tertiary enrolment are not available for Timor-Leste but is also likely to be lower than in most other countries in the region as well. For instance, Jones (2001, p. 258) reports that only 0.4 percent of males and 0.2 percent of females had a tertiary education in 1995.

The low school participation rate is worrying. Low incomes are a partial explanation, but many other poor countries are doing better than Timor-Leste. Poverty has a negative effect on school enrolment mainly through the difficulties it creates for households when it comes to meeting the costs of education and do without the children's help in income generating activities. The cost of schooling has gone down over the last years and is therefore likely to be less important for low enrolment rates. Moreover, use of child labor seems relatively limited in Timor-Leste. For instance, in 2002 about 19 percent of children aged between 5 and 14 were working outside of the household, in a household enterprise, or doing

more than 4 hours per day of household chores (UNICEF, 2003, p. xii). Thus, other factors intervene as well. For instance, the World Bank (2004b, p. xix) reports that in families with children aged 7-12, about 32 percent of the poorest families and 26 percent of the richest families had 'no interest' in sending their children to school. It is, however, likely that the demand for education will increase over time and with the gradual formation of a market-based economy.

Hence, many children do not attend school. If they do, they find themselves in an environment that is plagued by various problems and which does not facilitate an efficient learning. For instance, the number of students is relatively low in Timor-Leste, but the number of teachers is even lower, comparatively speaking. As a result, the pupil-teacher ratio is more than twice as high in Timor-Leste as in any other country in the region, and almost five times as high as in Indonesia (cf. Table 2). The figure is a result of the large outflows of teachers from Timor-Leste in 1999, a loss that has not yet been fully balanced by new recruitments, and of the increased number of students. Needless to say, classes of 62 students per teacher are a serious obstacle to efficient teaching. There are also other serious problems that negatively affect the quality of teaching on Timor-Leste: school material is in scarce supply and often of poor quality, the teachers are poorly trained, and the students receive few hours of instruction (World Bank, 2004b, pp. 26-31). Given the quality problems, it is hardly surprising that the students' performance is poor (World Bank, 2004b, p. 35).

--Table 3 about here--

It seems that the government recognizes the importance of education, as seen in the National Development Plan, and that it is trying its best to improve the situation, as witnessed by the large amount of resources spent on education (cf. below). Still, there are a couple of areas

with room for policy improvements. One such area is the language of instruction, and a second concern is the functioning of the Ministry of Education.

The government has decided to use Portuguese as the language of instruction in schools at all levels of education, although it is said that Tetum will be used in parallel in the transition phase. This controversial decision has met with strong opposition from younger Timorese who are educated in Bahasa Indonesia and who most of the time do not speak Portuguese.³ One of the main reasons behind the reform is presumably to be found in the ruling elites' own education in Portuguese and their long exiles in Portuguese-speaking countries such as Mozambique and Angola (Scott, 2001). Considering that only about five percent of the population speak Portuguese, the change of language is difficult to implement and relies on extensive support by Portugal for providing teachers, teacher training, and school books.

Despite this support, many observers characterize the use of Portuguese as a disaster where children are not able to learn how to read and write because they are taught in a foreign language. The lack of teachers who speak sufficiently good Portuguese to be able to use it as language of instruction aggravates the problem. The vast majority of teachers were educated in Bahasa Indonesia and only those who graduated before 1975 can speak Portuguese. The government is now trying to train teachers in Portuguese by offering language lessons a few hours a week. Whether such programs will result in sufficient understanding of the language to use it in teaching in the immediate future is, however, doubtful. National tests have also shown that students instructed entirely in Tetum perform better than students instructed in a mixture of Portuguese and Tetum, even after controlling for background characteristics that might affect performance (World Bank, 2004b, p. xxii).

³ Portuguese is only the third or fourth language of many students (World Bank, 2004b, p. xxi).

Hence, there are good reasons why the policy of using Portuguese in the lower grades should be abandoned and Tetum should be used instead.

Timor-Leste is spending a large share of the budget on education: around 25 percent of total budget expenditures. The focus is on primary education, which receives more than 40 percent of the total expenditures on education. While the relative amount spent on education is high for a country at Timor-Leste's income level, there are signs that the resources are not being used efficiently. Part of the problem seems to be a poor functioning of the Ministry of Education. The ministry seems to have a very limited ability to execute the budget and does not realize that it has to make an expenditure plan and work ahead of time. As a result, expenditures on goods and services in March 2004 amounted to only about 41 percent of the annual budget appropriation, compared to 63 percent for the government as a whole (World Bank, 2004a, p. 5). This situation is serious considering the problems in schools that are often operating without learning materials and that are now introducing school fees to cover their costs. Moreover, teachers have been reported to leave their jobs because they fail to receive their salaries. Needless to say, this is a serious problem in a situation where the lack of teachers has already led to a student-teacher ratio of about 62 (Democratic Republic of Timor-Leste et al., 2003, p. 73).

Health

The development of health services in Timor-Leste shows strong similarities with the development of education previously discussed. In other words, health was poor during the Portuguese colonization, improved under the Indonesian rule but never quite caught up with the rest of Indonesia (Saldanha, 1994, pp. 61-62; Jones, 2001, p. 266). It has faced large difficulties since independence. The only important difference is that quality improvement in the health area has perhaps been more significant than in education in the last few years.

As seen in Table 4 the health situation in Timor-Leste remains worse than in Indonesia and in the Southeast Asian countries. For instance, life expectancy is only 49 years, which can be compared to 67 years in Indonesia and an average of 65 years in other developing countries.⁴ The low life expectancy is mirrored in a high under-five mortality rate, higher than in most other developing countries and higher than in any other Southeast Asian country with the exception of Cambodia. As previously mentioned, a number of different diseases plague the population of Timor-Leste. Tuberculosis is as common in Timor-Leste as in Cambodia and more common than in other Southeast Asian countries.

Access to health is difficult to measure but one way is to look at the share of births attended by skilled personnel, which is included in the last column of Table 4. Only 24 percent of the births are attended by skilled personnel, a figure which is, again, lower than in most other countries, even those at a comparable income level. Other reports come up with an even lower rate of attendance by skilled personnel. For instance, the Ministry of Health (2004b, Table 10.9) finds that a nurse, midwife, obstetrician, or general practitioner attended only about 16 percent of births.

--Table 4 about here--

Hence, the health situation on Timor-Leste is poor compared to most other countries, and the population suffers from roughly the same diseases as they did during the Portuguese colonization. For instance, malaria is endemic in all provinces; four provinces including Dili are high-transmission areas; and chloroquine-resistant strains have been reported (Ministry of Health, 2004a, p.1). Even more troublesome is the fact that the disease has shown a three-fold

⁴ The figures on life expectancy, as well as other variables, differ between sources, often because of different definitions. For instance, the Ministry of Health (2004a, p.1) puts the life expectancy on Timor-Leste to 57 years. The UNDP figures are used in Table 5 since they use similar variable definitions for the included countries.

increase in Timor-Leste since 1999. Other preventable communicable diseases such as tuberculosis and diarrheal diseases are also common. Moreover, the under-five mortality rate is high, as shown in Table 4. Accordingly, the infant mortality rate is also very high: about 88 per 1,000 live births (Ministry of Health, 2004a, p. 1). Maternal mortality is, again, very high with about 800 deaths per 100,000 live births. The main causes of maternal mortality seem to be an increased incidence of teenage pregnancies and short time periods between pregnancies. Both factors are reflected in the extremely high, and rising, total fertility rate⁵ of 7.77 (Ministry of Health, 2004b, Ch. 5, p.1). This makes the fertility rate in Timor-Leste the highest in the world, and it seems to be caused by a mix of factors. The most important explanation is a widespread unfamiliarity with family planning practices, which is rather surprising considering the large effort to spread information on family planning during the Indonesian occupation (Ministry of Health, 2004b, Ch.6). A related issue is how to avoid sexually transmitted diseases. Again, such knowledge is lacking, which is perhaps not surprising since only about a quarter of the population has ever heard of HIV/AIDS (Ministry of Health, 2004b, Ch. 14). As a result the country is likely to face a coming HIV/AIDS epidemic.

The main problem is to bring health services to the rural population. Only around 10 percent seek health care when sick (Democratic Republic of Timor-Leste et al., 2003, p. xi). One explanation is presumably long distances to health care centers, in combination with poor roads that get even poorer during the rainy season. Inconvenience and costs for transport and medicines also have a negative effect on the utilization of health care. Still, the low utilization can hardly be explained by distance and costs alone. An additional important reason may be a widespread lack of awareness of health problems, particularly

⁵ The total fertility rate thus tells us how many children a woman would have on average passing through the entire child-bearing age.

among women, and a general lack of understanding of health benefits (Ministry of Health, 2004a, p.2).

The government attempts to improve the situation through information and by providing health care closer to the people. Information campaigns attempt to spread knowledge not only of modern health care facilities but also about ways to prevent diseases through, for instance, mosquito nets, personal hygiene, and safe drinking water. Such campaigns are of course a major challenge in a society with high illiteracy rates and little coverage of radio and television.

The main focus of the government health policy has been on provision of basic primary health care at the local level and concentration of in-patient treatment in four large hospitals in the urban centers. Alongside the public health service, there is also a substantial amount of services provided by churches and non-government organisations. Such clinics account for roughly 20 percent of all outpatient visits (Ministry of Health, 2004a, p.4).

The focus on community health centers appears to have been a successful strategy for reaching the poor. It is estimated that roughly 87 percent of the population today has good access to health care, defined as less than two hours walk from the home (Ministry of Health, 2004a, p.2). This is likely to have yielded some other benefits. For instance, immunization coverage for many diseases, such as measles, has tripled between 2001 and 2004 to roughly 60 percent (World Bank, 2005). Moreover, the share of births assisted by skilled attendants has increased to 52 percent in 2004. Finally, out-patient visits per capita from 1.6 to 2.15 (World Bank, 2004a, p. 5).

Despite the progress that has been made, many problems remain in the health sector. The number of doctors and midwives is too low; malaria, tuberculosis and various skin diseases are common; and the country is likely to face a coming HIV/AIDS epidemic. It is therefore fortunate that Timor-Leste spends roughly 7 percent of GDP on health, compared to

an average of 1.7 percent in the low- and middle-income countries in East Asia and the Pacific (Ministry of Health, 2004a, p.26). This policy will have to continue over a foreseeable future if Timor-Leste is going to make any more substantial catching up with the health standard in other parts of the region.

The Economic Side of Poverty Reduction

It should be completely clear from the foregoing that poverty is the number one problem in Timor-Leste. Economic growth is a necessary ingredient in any poverty reduction strategy. Societies without growth can have temporarily successes in fighting poverty but the results tend to be unsustainable. Economic growth generates resources for improving living standards, both by increasing private incomes and by increasing the ability of the government to launch poverty reduction programs. Although the importance of economic growth for poverty reduction can hardly be overemphasized, it should, however, also be stressed that economic growth is necessary but not sufficient for poverty reduction.

Having said this, in the final part we will briefly sketch the evolution of the Timorese economy since independence, in order to obtain a better perspective of the task that the government is facing in its endeavor to reduce poverty. We will finish with an account of the financing side of the problem.

East Timor experienced a dramatic economic contraction in the late 1990s (Hill and Saldanha, 2001, p. 8), as a result of the Asian crisis in 1997. Moreover, the drought brought about by El Niño had a sharp negative effect on agricultural output and hence also on the incomes for most of the population. The climax of the decline was reached with the destruction in 1999.

Considering the sharp decline in GDP in the late 1990s, it is not surprising that East Timor witnessed high economic growth once the reconstruction started in late 1999. The

first two years with large foreign assistance, 2000 and 2001, saw an annual real growth rate of GDP of about 15 percent. The first year of independence, 2002, this rate declined to about 2 percent, and a further decline took place in 2003 – to minus 3 percent. The most important reasons for the negative growth were the withdrawal of a large number of foreign advisors and substantial flood damage to crops caused by a delayed rainy season in 2002 (Asian Development Bank, 2004b). Better weather conditions in 2004 are expected to offset the negative impact of continued reduction of the international presence and result in a positive, albeit relatively small, growth of about 2 percent in 2004 (IMF, 2004, p. 13).

The growth experience of Timor-Leste in recent years demonstrates that the country depends on the presence of foreign advisors who boost the demand for goods and services and thereby also economic growth. After the beginning of the withdrawal of the foreign community in 2002, economic growth has been relatively slow. This gives rise to concern, since it should be noted that even growth rates of 2-3 percent of GDP are insufficient to lift the population out of poverty. A high fertility rate, together with declining mortality rates, has led to a rapid population growth.

Increased growth is likely to require a combination of productivity improvements in the agricultural sector and the emergence of a modern private sector. Improvements in agriculture are especially important because a large proportion of the population makes its living in this sector. The most severe problem facing agriculture is a lack of modern technologies, including high-yield grains and seeds, irrigation, and fertilizer (UNDP, 2003, p. 48). Moreover, lack of market access effectively reduces the incentives to invest in modern technologies and forces farmers to continue subsistence activities. Improvements in roads and other infrastructure are therefore important for bringing farmers into contact with urban markets.

Although the importance of improvements in agriculture can hardly be overemphasized, agriculture alone cannot generate sustainable economic growth. One reason is that the labor force is increasing with about 15,000-20,000 new entrants annually (Asian Development Bank, 2004a, p. 55). Agriculture is unlikely to be able to absorb this number if productivity and incomes are to increase. Hence, it is likely that a sustainable development requires the formation of a modern private sector. Such activity is, with a few exceptions in the modern service sector, lacking in Timor-Leste. A partial exception is the banking sector.

Private sector development faces many hurdles. For instance, there is little experience of modern private sector activities. The private sector activities that took place during the Indonesian occupation were often run by people from other parts of Indonesia (mainly Chinese) and most of these left in 1999. Attempts are being made to bring them back and some success has been reported. However, the issue of repatriation is sensitive (Smith, 2004).

Moreover, wages are relatively high in Timor-Leste: about twice as high as in Indonesia and many other Southeast Asian countries, despite relatively poor skill levels of the employees in Timor-Leste (UNDP, 2003, pp. 54-55). One reason for the high wages is the presence of foreign experts whose demand for domestic goods and services tends to have a strong positive effect on both prices and wages. As a result, it is difficult for producers of tradable goods to compete with imports.⁶

Finally, poor institutions constitute an obstacle to private sector development. For instance, progress on foreign and domestic investment laws has been slow. The same is true for laws on bankruptcy, insurance and payments (IMF, 2004). Moreover, the problem of implementing the laws is perhaps even greater than the problem of incompleteness, and it is likely to remain serious as long as the judiciary system remains dysfunctional. The

⁶ Cf. the discussion of Dutch Disease below.

government, however, is aware of the pressing need for institutional improvements and various reforms are to be launched.

The economy of Timor-Leste largely consists of traditional subsistence farming and a modern sector that contains only the public administration and some services. Not surprisingly, the result is a very small amount of merchandise exports, about 7 million USD in 2003, a figure that is expected to grow to about 9 million in 2004. Exports have increased from approximately 5 percent of GDP in 2000 to some 9 percent in 2004 (Lundahl and Sjöholm, 2005, p. 30). The bulk consists of coffee, and is mainly targeting the high-quality segments of the coffee markets in the United States and Indonesia. (Ministry of Planning and Finance, 2004a).⁷ Official trade figures, however, underestimate the importance of exports to Indonesia. A substantial amount of non-registered trade takes place across the border to West Timor.

The Funding of Poverty Reduction

The public budget has been surprisingly and substantially strengthened during the last year. Government revenues amounted to about 21 percent of GDP in 2003 and are expected to more than double to about 48 percent of GDP in 2004. They can be divided into oil/gas revenues and other domestic revenues, including taxes and fees. The collection of taxes and fees approximately doubled as a share of GDP between 2002 and 2004 (Table 5). The increase is not primarily due to increased economic activity but to increased collection efficiency. The administrative efficiency may improve further through training of local staff but there are concerns that the decreased number of international advisors will be difficult to balance. The gradual withdrawal of international staff will also affect tax revenues from the service sector negatively, and this will not be balanced by the expected, or at least desired,

⁷ The shares are based on exports until September 2004.

increase in small Timorese businesses since these are very small taxpayers. The bulk of increased revenues derives from a dramatic increase in oil and gas revenues: from about 13 percent in 2003 to a predicted 39 percent in 2004 (Table 5).

--Table 5 about here--

The most recent figures tend to indicate that even these projections may be underestimates. During the first quarter (July-September) of the 2004/05 fiscal year, no less than 62 percent of the budgeted revenue for the entire year had already been collected. Timor Gap tax revenue alone, almost twice as much as projected and almost four times as much as during the corresponding period 2003/04, accounted for 82 percent of this (Ministry of Planning and Finance, 2004d).

On the expenditure side, increased recurrent expenditures have increased total expenditures from about 14 percent of GDP in 2000/01 to an estimated 23 percent in 2004/05. Because of the much larger increase of revenues than of expenditures, the government budget has gone from a deficit of about 7 percent in 2000/01 to a small surplus of 0.5 percent in the fiscal year 2003/04. The surplus was completely unexpected, with the mid-year budget review predicting a budget deficit for 2003/04 of about 9 percent of GDP (IMF, 2004, p. 2). The budget surplus is expected to increase further to about 26 percent in 2004/05 (Table 5).

As seen in Table 6, revenues were expected to amount to 98 million USD in the combined sources budget for 2004/05. This figure has now been revised upward to about 192 million USD. Hence, revenues are now expected to be more than twice the original estimates as a result of the high oil revenues, an increase from an expected 44 million USD, at the time of the 2004/05 budget, to present estimates of 125 million USD (IMF, 2004, p. 4). The same pattern is seen for the expected revenues for the coming years. For instance, the revenues for

2005/06 were previously expected to amount to about 86 million USD but the figure has been revised upwards with about 90 million USD. It should also be noted that the revenue figures for 2005-08 do not include foreign budget support.⁸ Hence, revenues are expected to increase substantially even if foreign budget support is abolished.

--Table 6 about here--

The most important explanation for increased oil and gas revenues is that production from the Bayu Undan Field has started earlier than expected and generated more output than expected. The extraction began in February 2004 and is expected to produce around 2.6 trillion cubic feet of gas and 370 million barrels of liquids during 20 years of exploitation (Ministry of Planning and Finance, 2004b).

The large increase in government revenues will lead to substantial budget surplus over the coming years, despite large and widespread needs for investments in infrastructure, education, and health. The revenue constraint has been broken in Timor-Leste. At the same time, budget implementation is running behind schedule (Democratic Republic of Timor-Leste, 2003). The main reason for lagging expenditures is that there is a lack of administrative capacity to increase government spending. Timor-Leste simply lacks the capacity to spend at the rate envisaged in the various plan and budget documents. Timor-Leste was left without qualified and experienced administrative personnel when the Indonesians left the country, and the return of Timorese in exile has not at all sufficed to fill the gap. For the time being expatriate advisors in many instances have had to assume direct operational responsibility. The public administration is crucially dependent on this support.

⁸ Grants of about 31 million USD are included in the figures for 2004/05.

In order to solve the problem of how to spend the oil and gas revenue, the government has decided to propose parliament to establish a petroleum fund, based on the Norwegian model (see Norway, Ministry of Finance and Norway, Central Bank, for details). This is expected to be operational from 1 July 2005. The basic idea behind the fund is to guarantee that the oil revenues expected to flow into the country over the next 20-30 years are spent wisely, in the interest of the economic development of the country (Ministry of Planning and Finance, 2004c). To ensure intergenerational equity, the fund builds on the perpetual income concept, i.e. in the longer run the real value of petroleum wealth should be kept constant over time. The permanent income of the fund will be spent each year, and anything in excess of that will be added to the fund. More precisely, only the interest component on the sum of current assets and expected future revenues is spent every year.

Oil and gas revenue is presently projected to rise until reaching a peak in 2011 and then fall off towards eventual exhaustion in the mid-2020s. The projections, however, are uncertain, with respect to both timing and magnitude (Cotton, 2005, pp. 188-190). The exact size of the reserves is not known. The maritime boundary between Timor-Leste and Australia has not yet been determined. The pace and cost of extraction remain uncertain. Finally, historically, petroleum prices, which are presently very high, have tended to display large fluctuations. Present revenue projections, which envisage a gradual reduction of the oil price level point to a figure around 3.7 billion USD, but if the price turns out to be 5 USD lower per barrel the latter shrinks to some 2 billion, and if it is 5 USD higher, it increases to 5 billion (Ministry of Planning and Finance, 2004c, p 7).

Whichever projection that turns out to be correct, the magnitudes involved are so large that they could easily cause trouble. One of the main problems that could arise is that of Dutch Disease (Corden and Neary, 1982). In an economy that has its own currency this shows up in two different ways. In the first place, the domestic currency will appreciate as

foreign currency flows in as a result of oil and gas extraction. The domestic cost level rises in terms of foreign currency and it becomes difficult to export goods and services other than those which led to the original inflow. Since the currency of Timor-Leste is the US dollar, however, this effect disappears. What remains is the second effect. The inflow of foreign currency increases the money supply and with that also domestic demand and hence the price of non-traded goods. (The price of traded goods, on the other hand, will remain constant since this is determined in the world market.) Production factors are pulled out of the traded goods sectors and into activities producing non-traded goods. Alternatively, as in the case of Timor-Leste, it becomes difficult for sectors that attempt to establish themselves in the export market to compete for resources. Thus, there is a risk that large oil revenues may act as an obstacle to the development of non-traditional exports and in addition create difficulties for the traditional exports of coffee.

To avoid problems like this, all revenues from petroleum, including the return on the fund's investments will go into the fund as savings, which will be invested abroad in low-risk financial assets. Hereby, oil and gas reserves will be transformed into financial assets. This will separate expenditure from revenues. Expenditure from the fund will be used only to finance the deficit on the government budget (excluding petroleum revenues), so as to avoid an overstimulation of economic activity. In the longer run the strategy envisages a convergence of expenditure to a constant level. The inherent volatility of petroleum revenues over time makes it imperative to impose a measure of regularity in this respect on the one hand, and fiscal (expenditure) discipline on the other.

Summary and Concluding Remarks

To sum up, all available data unequivocally point to the fact that Timor-Leste is a very poor country, among the poorest both in East Asia and the world. For instance, four out of ten

people live below the poverty level. Moreover, the educational situation in Timor-Leste is also troublesome with a number of severe deficiencies. The literacy rate is only 60 percent, primary school enrolment is far lower than elsewhere in Southeast Asia, dropout rates are high and many pupils have to repeat classes, the pupil-teacher ratio is twice as high as elsewhere in the region, and the quality of education in general is low. No more than 5 percent of the population has completed the primary cycle. The situation will presumably improve during the years to come, but factors like the decision to employ a foreign language – Portuguese – as the medium of instruction and the poor functioning of the Ministry of Education constituted obstacles to be overcome.

As could be expected, overall, the health situation is similar to the situation in education. The Portuguese and the Indonesians both failed to reach the population at large, and the situation in Timor-Leste is worse than in Indonesia and Southeast Asia. Life expectancy at birth does not reach 50 years, and the country performs notably worse on the specific health indicators than its neighbors and the developing world in general. Malnutrition is a problem among small children. However, the Ministry of Health is the most efficient one in the country and it has designed a strategy which saves on expensive resources while at the same time it emphasizes reaching as many people as possible with primary care.

The Timorese economy has grown during recent years, but mainly as a result of the recovery from the 1999 destruction, and the structural weakness remains: the economy consists of little else than subsistence agriculture. Timor-Leste will benefit from substantial oil revenues during the next few years – more than the economy can absorb, and the risk of Dutch Disease is imminent. However, an oil fund has been created along ‘Norwegian’ lines that will provide the country with a perpetual income stream that can be invested as the economy develops.

References

- Asian Development Bank (2004a), *Timor-Leste Eighth Progress Report: ADB TFET Projects*.
Manila
- Asian Development Bank (2004b), *Country Strategy and Program Update 2005-2006: Democratic Republic of Timor-Leste*. August. Manila
- Corden, W. Max and Neary, J. Peter (1982), 'Booming Sector and De-Industrialisation in a Small Open Economy', *Economic Journal*, Vol. 92: 825-848
- Cotton, James (2005), "East Timor in 2004: It Is All about the Oil", *Asian Survey*, Vol. 45, No. 1, pp. 186-190.
- Democratic Republic of Timor-Leste, Ministry of Planning and Finance, Planning and External Assistance Management Division, Asian Development Bank, Japan International Cooperation Agency, United Nations Development Programme, United Nations Children's Fund, United Nations Mission of Support in East Timor and the World Bank (2003), *Timor-Leste. Poverty in a New Nation: Analysis for Action*. November. Dili
- ETTA (East Timor Transitional Administration), Asian Development Bank, World Bank and United Nations Development Programme (2001), *The 2001 Survey of Sucos. Initial Analysis and Implications for Poverty Reduction*. October. Dili
- Hill, Hal and Saldanha, João M. (2001), *East Timor: Development Challenges for the World's Newest Nation*, Singapore: Institute for Southeast Asian Studies.
- IMF (2004), Timor-Leste, Assessment of Economic Developments and Policy Issues, IMF Staff Visit, October 2004
- Jones, Gavin W. (2001), Social Policies in East Timor: Education and Health, in Hal Hill and João M. Saldanha (eds), *East Timor: Development Challenges for the World's Newest Nation*, Singapore: Institute for Southeast Asian Studies

- King, Dwight Y. (2003), "East Timor's Funding Elections and Emerging Party System", *Asian Survey*, Vol.45, No.5, pp.745-757.
- Lundahl, Mats, and Sjöholm, Fredrik (2005), *Poverty and Development in Timor-Leste*, Sida Country Economic Report 2005:3. Stockholm
- Ministry of Health (2004a), Health Care: Priorities and Proposed Sector Investment Program, Dili.
- Ministry of Health (2004b), *Demographic and Health Survey*, Draft, Dili.
- Ministry of Planning and Finance (2004a), *Exports by Country of Destination*. Dili
- Ministry of Planning and Finance (2004b), Fiscal Overview: Briefing to Development Partners. Dili
- Ministry of Planning and Finance (2004c), *Establishing a Petroleum Fund for Timor-Leste*. Public Consultation Discussion Paper, October. Dili
- Ministry of Planning and Finance, Treasury Division (2004d), Budget Execution Report 1st Quarter (July-September) FY 2004-05. October. Dili
- Ministry of Planning and Finance (2004e), *The Democratic Republic of Timor-Leste Combined Sources Budget 2004-2005*. Dili
- Norway, Central Bank, <http://www.norgesbank.no/english/>
- Norway, Ministry of Finance, <http://www.odin.dep.no/fin/engelsk/>
- Planning Commission (2002), *East Timor National Development Plan*. May. Dili
- Saldanha, João Mariano de Sousa (1994), *The Political Economy of Timor-Leste Development*, Jakarta: Pustaka Sinar Harapan
- Scott, Catherine (2001), *East Timor: Transition to Statehood*, London: CIIR
- Shoesmith, Dennis (2003), "Timor-Leste: Divided Leadership in a Semi-Presidential System", *Asian Survey*, Vol. 43, No. 2, pp.231-252.

Smith, Anthony L. (2004), "Timor Leste: Strong Government, Weak State", *Southeast Asian Affairs 2004*, Singapore: ISEAS

UNDP (United Nations Development Programme), Asian Development Bank, East Timor Transitional Administration/ East Timor Public Administration, World Bank (2002), *Poverty Assessment Project. Facilitating Community Development. The Participatory Potential Assessment (PPA) Component*. Dili: UNDP

UNDP (United Nations Development Programme) (2003), *Poverty in a New Nation: Analysis for Action*. Dili

UNDP (2004), *Human Development Report 2004: Cultural Liberties in Today's Diverse World*, New York: UNDP

UNICEF (United Nations Children's Fund) (2003), *Multiple Indicator Cluster Survey*, Dili
World Bank (2003), *Timor-Leste Poverty Assessment. Poverty in a New Nation: Analysis for Action (In Two Volumes). Volume II: Technical Report*. Report No. 25662-TP, May.
Washington, D.C.: World Bank

World Bank (2004a), Background Paper for the Timor-Leste and Development Partners Meeting, Dili

World Bank (2004b), *Timor-Leste. Education Since Independence: From Reconstruction to Sustainable Improvement*, Report No. 29784-TP, Washington DC: World Bank

World Bank (2005), First Health Sector Program Makes Good Start: Health Minister Rui Araujo, Press Release, 25 January. Dili: World Bank

Table 1: Rankings of *Aldeias* on Quality of Life Indicators

Quality of life indicator	Good	Satisfactory	Average	Poor	Total
Food		1	36	11	48
Shelter			20	28	48
Livelihood			19	29	48
Income			11	37	48
Health conditions and facilities			10	38	48
Education			8	40	48
Transportation and communication			1	47	48
Clothing		1	41	6	48
Entertainment			21	27	48
Religion			27	21	48

Source: UNDP et al. (2002, p.16).

Table 2: Education in Cambodia and other South-East Asian Countries (2002).

	Adult literacy rate	Primary enrolment (net, %)	Secondary enrolment (net, %)	Tertiary enrolment (gross,%)	Pupil-teacher ratio (primary)
Timor-Leste*	60	75	30	n a	62
Cambodia	69	86	21	3	28
Indonesia	88	92	n a	15	13
Laos	69	83	31	6	16
Malaysia	89	95	69	27	23
Myanmar	90	82	35	12	n a
Philippines	93	93	56	31	30
Thailand	93	86	n a	37	n a
Vietnam	90	94	65	10	21

Note: The figure for secondary school enrolment for Timor-Leste is the Junior Secondary enrolment rate. n a – not available.

Sources: Figures for Timor-Leste are from UNICEF (2003) and from World Bank (2004b) Figures for other countries are from www.unesco.org/statistics.

Table 3: Percent of Adults (15 years and above) by Level of Education as Found in the UNICEF Multiple Indicator Cluster Survey 2002.

	Never Enrolled in School	Some Primary School	Completed Primary School	Lower Secondary School	Upper Secondary School or More
Total	54.3	14.4	6.2	10.4	14.7
Urban	38.6	15.4	6.7	12.6	26.7
Major Urban	28.5	16.1	8.0	14.7	32.7
Rural	59.4	14.1	6.1	9.6	10.8
Eastern Region	54.3	15.7	5.6	11.2	13.2
Central Region	51.5	14.1	5.8	11.0	17.6
Western Region	61.0	13.4	8.0	7.8	9.7

Source: UNICEF (2003), Table 6.3.

Table 4: Health Indicators for Timor-Leste and Other Southeast Asian Countries (2002).

Country	Life expectancy at birth (years)	Under-five mortality rate (per 1,000 live births)	Tuberculosis cases per 100,000 people	Births attended by skilled health personnel (%)
Timor-Leste	49.3	126	734	24
Malaysia	73.0	8	120	97
Thailand	69.1	28	179	99
Philippines	69.8	38	540	58
Indonesia	66.6	45	609	64
Vietnam	69.0	39	263	70
Cambodia	57.4	138	734	32
Laos	54.3	100	359	19
Burma	57.2	109	176	56
All developing countries	64.6	89	307	55

Source: UNDP, *Human Development Reports*, www.hdr.undp.org/reports/global/2004.

Table 5: The Government Budget in Timor-Leste 2000-2005. Share of GDP (%).

	2000/01	2001/02	2002/03	2003/04	2004/05 (predicted)
Revenues	7.7	8.2	13.8	21.4	48.4
Domestic revenues	4.0	5.4	5.5	8.9	9.8
Oil/gas revenues	3.7	2.8	8.3	12.6	38.6
Expenditure	14.5	13.8	20.0	21.0	22.8
Recurrent expenditure	8.4	10.8	15.9	18.0	19.7
Capital expenditure	6.1	3.0	4.1	2.9	3.1
Overall balance	-6.8	-5.6	-6.2	0.5	25.6

Source: IMF (2004).

Table 6: Revised Total Revenues 2004-08 (million USD).

	2004-05	2005-06	2006-07	2007-08	Total
Update	192.2	176.8	179.4	168	714.4
2004-05 Budget	97.9	86.4	110.7	103.9	368.1
Change	94.3	90.4	68.7	62.1	346.3

Source: Ministry of Finance (2004b).