APPROPRIATE WAGE RATE AND RELATED ISSUES FOR EMPLOYMENT INTENSIVE PUBLIC WORKS PROGRAMMES IN TIMOR LESTE


Kirit Vaidya
for

| SEFOPE | International |
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| Labour |  |

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Kirit Vaidya
Abbreviations

| ADB | - | Asian Development Bank |
| :---: | :---: | :---: |
| ASEAN | - | Association of South East Asian Nations |
| DNE | - | Direç̧ão Nacional de Estatística |
| EDC | - | Education Development Centre Inc |
| EGPW | - | Employment Generating Public Works |
| EU | - | European Union |
| GDP | - | Gross Domestic Product |
| GoTL | - | Government of Timor Leste |
| GTZ | - | Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation Agency) |
| IDP | - | Internally Displaced Persons |
| ILO | - | International Labour Organisation |
| IMF | - | International Monetary Fund |
| JICA | - | Japan International Cooperation Agency |
| LB | - | Labour-based |
| LDP | - | Local Development Programme |
| LI | - | Labour Intensive |
| MLCR | - | Ministry of Labour and Community Reinsertion |
| MOI | - | Ministry of Infrastructure |
| NGO | - | Non-government Organisation |
| REGS | - | Rapid Employment Generation Scheme |
| RW | - | Reservation Wage |
| RWR | - | Reservation Wage Rate |
| SEFOPE | - | Secretaria de Estado ba Formasaun Profisional no Empregu (Secretariat of State for Vocational Training and Employment) |
| TL | - | Timor Leste |
| TLSLS | - | Timor Leste Survey of Living Standards (2007) |
| TLSS | - | Timor Leste Survey of Sucos (2001) |
| UNICEF | - | United Nations Children's Fund |
| UNMISET | - | United Nations Mission of Support in East Timor |
| UNDP | - | United Nations Development Programme |
| WFP | - | World Food Programme |
| YEP | - | Youth Employment Programme |
| YES | - | Youth Employment Survey (2007) |

Currency: US\$ is the currency in use in Timor Leste

## EXECUTIVE SUMMARY

## Introduction

Employment generating public works (EGPW) are an important part of GoTL's strategy to reduce unemployment, underemployment and poverty and contribute to social stability. The term EGPW is used in this report as a generic term to encompass labour intensive (LI) and labourbased (LB) approaches. The distinction between these approaches is made below. SEFOPE is being supported by a number of international agencies to develop and implement employment generating public works programmes (EGPWPs). Other government ministries and agencies and NGOs offering different wage rates are also engaged in such programmes and projects. In setting wage rates for such programmes, it is necessary to take account of (a) the nature of benefits they offer (e.g. the balance between employment creation and effective use of labour); (b) the beneficiaries to be targeted, and (c) any adverse impacts on other economic activities.

The purposes of this assignment are: (a) to make recommendations on appropriate wage rates for unskilled casual employment on public works programmes, and (b) make a broad assessment of the labour supply response to the employment opportunities created by employment intensive programmes. The latter would help in gauging the scale of such activities required.

## Timor Leste context

The population of Timor Leste in 2007 was just over 1 million with an estimated growth rate over the next seven years of 3 per cent per year. Around 24 per cent of the population is urban with about 14 per cent residing in the urban centres of Dili and Baucau. About 54 per cent of the population is under 19 years old. This demographic profile implies high numbers of young workers entering the workforce in coming years. The small formal sector dominated by the public sector and UN activities does not have the capacity to absorb this influx.

In 2001, 40 per cent of the population was below the national poverty line of about $\$ 0.55$ per day and poverty incidence has probably increased since then. The level of poverty is related to precarious livelihoods. For over 80 per cent of the labour force, the principal source of livelihood is agriculture. Those reliant on subsistence agriculture with limited supplementary livelihood sources are among the poorest. About six out of seven poor lived in rural areas in 2001.

The rural economy and labour market are characterised by:

- underemployment, low incomes and related high poverty incidence rather than open unemployment;
- complex set of labour transactions e.g. wage labour, labour exchanges, sharecropping and social obligations, and
- a range of subsistence activities (farming, hunting and fishing) supplemented by limited cash earning activities such as selling farm produce, trading and wage employment.
The urban economy and labour market are characterised by:
- higher open unemployment and employment seeking than in rural areas;
- a much higher proportion of young unemployed job seekers than in rural areas, and
- formal and informal wage employment and informal self employment as the main means of livelihoods supplemented by subsistence activities.

In rural areas, EGPWPs will offer additional income opportunities to supplement poor livelihoods. Urban EGPWPs will reduce unemployment and contribute to the livelihoods of poor urban households. In rural and urban areas, a high priority has to be given to employment opportunities for women and the young.

## Programme objectives, implementation and wage rates

For wage rate policy and effective implementation of EGPWPs, it is necessary to make a distinction between labour intensive (LI) and labour-based (LB) public works programmes. LI programmes seek to maximise the amount of employment created for a given budget. Non-wage expenditure is kept as low as possible and there is less emphasis on the quality of the output. The LB approach chooses an appropriate mix of labour and light equipment for effective and efficient creation, rehabilitation and maintenance of infrastructure assets.

LI programmes can be initiated rapidly to generate temporary employment. They are also suitable for continuing improvement and maintenance of infrastructure assets (e.g. earthworks for water tanks, short roads within a community, school buildings and markets) benefiting local communities and requiring very little equipment support. The LB approach can form the basis of long-term sustainable management of larger infrastructure assets with wider benefits (e.g. district, sub-district and feeder roads and irrigation canals).

A review of SEFOPE's current and proposed EGPWPs shows that LI and LB programmes will continue to be implemented side by side. SEFOPE Cash for Work is labour intensive, the shortterm employment creation component of the AusAID supported Youth Employment Programme (YEP) emphasises labour intensity while the Norwegian Government supported TIM-Works programme is LB. The World Bank led workfare proposal has LI as well as LB components..

A single uniform wage rate is envisaged for all EGPWPs under SEFOPE to: (a) reduce competition between projects and programmes, (b) ensure compatibility of the wage rate with programme objectives, and (c) effectively target resources and efforts towards the poor. However, the single uniform LI wage rate may not be appropriate for LB programmes on which there is emphasis on output and payment is based on performance. Further, the aim is to implement LB projects through contractors who will be responsible for employing and paying labour and therefore GoTL will not have direct control over wage rates.

The appraisal summarised above leads to the following recommendations on wage rate policy, especially to make a distinction between LI and LB employment:
(1) There should be a single uniform wage rate for LI works under SEFOPE and ideally for all GoTL LI projects.
(2) Differentiation between LI and LB works and wage rates should be clearly justified.
(3) The first element of differentiation is that the more important and larger works (e.g. district and sub-district roads and irrigation canals) should be labour-based and smaller projects for the benefit of local communities (suku and aldeia roads and tracks, water tanks and markets) could be labour intensive.
(4) The second element of differentiation is the mode of implementation. For LI components, direct employment by public sector agencies to enable rapid expansion could be the mode of implementation in the short-term. In the longer term this mode would be superseded by more decentralised community based works through
community contracting or small local contractors. The mode of implementation for LB components would be through private contractors.
(5) The uniform LI wage rate would not apply to LB works. Contractors would be free to set the wage rate taking account of local labour market and efficiency wage considerations but with the stipulation that the wage rate cannot be lower than the uniform LI wage rate.
(6) $A$ broad approach to the differentiation between LI and LB programmes and components has been outlined here. Further work is required to develop and elaborate the approach, notably (i) preparation of a detailed inventory of existing infrastructure assets, (ii) listing of new projects and clear criteria for determining which types of works are appropriate for LI and LB approaches, and (iii) developing the institutional framework and support for implementing the two approaches.

## Wage rates for LI and LB programmes

The wage rate should be set to target the poorer sections of the population and to minimise adverse impacts on other economic activities while at the same time it should provide a reasonable level of welfare support and incentive to work productively. The prevailing market wage rate for comparable work is a good guide. However, if EGPW employment is large in relation to the local labour market, it is necessary to determine whether the labour supply response would be adequate at the prevailing market wage rate.

Two main sources of data have been used to make the assessment: (a) the agricultural labour module of TLSLS 2007, and (b) a survey undertaken as a part of this assignment. After some filtering and adjusting, TLSLS 2007 provides wage rate data for 516 episodes of hiring paid labour (episode defined as an employer hiring one or more workers for one or more days). The mean daily wage rate for the sample is $\$ 1.4$. For 65 per cent of episodes the daily wage rate is $\$ 1.00$ or less and for 88 per cent it is below $\$ 2.00$. Based on this evidence, a wage rate well below $\$ 2.00$ per day may be justified for rural LI public works. However, there are some important qualifications to such a conclusion. Apart from questions about the reliability of data, the sample is geographically dispersed and may conceal wage rate differences between parts of Timor Leste. Further, agricultural work may not be precisely comparable with public works.

Therefore, direct evidence was sought on availability for public works employment at specified wage rates through a sample survey of households in eight districts. Questions on the characteristics of households of respondents and the economic activity status of household members were also included. Further, the survey provided evidence on variations in labour supply response between localities in different districts and between rural and urban areas.

The results (Table ES1) show that 18.3 per cent of those in the labour force in the sample would find $\$ 1.00$ per day acceptable. An additional 56.8 per cent would find $\$ 2.00$ acceptable implying a very high elasticity of supply between $\$ 1.00$ and $\$ 2.00$ (an increase of 100 per cent in the wage rate leading to a tripling of numbers willing to work). Over 75 per cent of those in the labour force in the sample are willing to undertake manual work for cash income at $\$ 2.00$ per day. About 84 per cent of those available for manual work are willing to undertake it for $\$ 2.00$ per day. This proportion is very close to that derived from the observed distribution of agricultural wage rates in TLSLS 2007.

Table ES1: Acceptable wage rates for manual work

|  | Number | Per cent of <br> $15+$ years | Per cent of <br> labour force | Per cent of those <br> available for <br> manual work |
| :--- | ---: | ---: | ---: | ---: |
| $\$ 1.00$ | $\mathbf{1 8 8}$ | $\mathbf{1 6 . 2}$ | $\mathbf{1 8 . 3}$ | $\mathbf{2 0 . 5}$ |
| Not \$1.00 but \$2.00 acceptable | $\mathbf{5 8 2}$ | $\mathbf{5 0 . 3}$ | 56.8 | $\mathbf{6 3 . 5}$ |
| Up to \$2.00 | $\mathbf{7 7 0}$ | $\mathbf{6 6 . 6}$ | $\mathbf{7 5 . 1}$ | $\mathbf{8 4 . 1}$ |
| Total 15+ years | $\mathbf{1 1 5 7}$ |  |  |  |
| Total 15+ years (labour force) | $\mathbf{1 0 2 5}$ |  |  |  |
| Assumed total available for manual <br> work | $\mathbf{9 1 6}$ |  |  |  |

About 80 per cent of those available for work at up to $\$ 2.00$ are engaged in subsistence activity. A further 9.1 per cent are unemployed. Assuming that those in subsistence production can normally accommodate public works employment along with farming and other subsistence activities, nearly 90 per cent of public works participants will not be diverted from productive activities. Less than 10 per cent of public works participants would divert from other low paid self-employment and employment. However, about 3.6 per cent are in the "Too young or scholar" category raising concerns about some young being drawn away from education.

Those in the 15 to 19 years age group have a higher than average positive response to the $\$ 2.00$ wage rate ( 73 per cent as opposed to 66.5 per cent on average) but this age group makes up only about 17 per cent of those responding positively to $\$ 2.00$ per day. Over 60 per cent of public works participants are likely to be in the 25 to 55 years age group. Men and women appear to be almost equally willing to participate in public works. However, ensuring that women's participation is sufficiently high may require dealing with any barriers against women's participation. In the Dili sample representing urban characteristics, the young ( 15 to 24 years) are a much larger proportion of those willing to work for $\$ 2.00$ per day ( 45.6 per cent as opposed to 25.9 per cent for the whole sample). The level of unemployment in the Dili sample is also higher ( 25 per cent as opposed to 9 per cent for the whole sample) and those available for work at $\$ 2.00$ per day include 36 per cent unemployed as opposed to 9.1 per cent for the whole sample.

There are substantial variations in the declared availability at $\$ 2.00$ per day between district, ranging from 99 and 97 per cent of the labour force in Ermera and Oecusi respectively to 22 and 45 per cent of the labour force in Covalima and Lautem. The high and low response rates are in rural areas and therefore do not reflect rural - urban differences. They may reflect differences between districts or between specific localities in characteristics such as farm and non-farm activities and temporary or long-term presence of other employers. In the urban Dili sample, 62 per cent of those in the labour force responded positively to $\$ 2.00$ per day. The evidence suggests that there will be substantial variations in labour availability between parts of the country. Therefore, it will be necessary to adjust the level of EGPW activities at the district and subdistrict levels according to local conditions with more activities where the population density is higher and there is evidence of greater under- and unemployment.

The welfare impact of EGPWP employment can be substantial for poor households. For about 20 per cent of households who are food insecure according to a recent World Food Programme
analysis, earnings from EGPWP employment would contribute between 18 to 42 per cent of average household expenditure depending on the amount of employment at $\$ 2.00$ per day (ranging between 28 days and 3 months). For the 23 per cent highly vulnerable households, the contribution to average household expenditure is in the 11 to 22 per cent range.

Recommendations on the wage rate and employment conditions:
(1) In spite of variation in labour availability between districts, a single uniform wage rate is recommended for simplicity and to void concerns about uneven treatment of districts.
(2) A uniform wage rate of $\$ 2.00$ per day for LI programmes and projects undertaken by SEFOPE, and ideally for all such GoTL programmes, is recommended.
(3) In line with the recommendation on wage rate policy made above, for LB programmes, contractors would be free to set the wage with the stipulation that it cannot be lower than the LI wage rate.
(4) The uniform LI wage rate should be kept under review and adjusted if necessary because of changes in labour market conditions and cost of living.
(5) A distinction should be made between the terms and conditions for casual public works employment and formal public sector employment. For the former, basic health and safety measures should be in place but other employment related benefits should be excluded.
(6) The wage rate and employment conditions should not discriminate against women and positive discrimination favouring women and the young may be necessary.

Findings and recommendations on labour availability:
(1) At the daily wage rate of $\$ 2.00$, local labour availability will vary depending on local population density and labour supply response. In most localities, local labour availability is unlikely to be a problem. For example, if the population density is less than a third of the national average and the labour supply response rate is less than half the average estimated from the survey, local labour supply would be more than 200 persons in the slack agricultural season.
(2) Labour availability for public works can also be interpreted as the need for employment generation. If labour availability is very high in relation to the employment which can be generated, it will be necessary to ration employment, for example by limiting it to a specified number of days per person and / or specified number of persons per household.
(3) Low labour availability in a location is an indication of limited need for LI employment generation. If $L B$ work is to be undertaken in localities with low labour availability, there will be need to rely on workers making their own arrangements to move close to worksites, an arrangement which is known in other contexts in Timor Leste.
(4) Programme costs for a comprehensive safety net have also been estimated. Programme costs for providing 28 days of employment would be just under $\$ 27$ million per year. If EGPWP employment is limited to one person per household, the programme cost would be just over $\$ 11$ million per year.
(5) Excel spreadsheets for making estimates of local labour availability and overall programme costs under alternative assumptions have been supplied.

## 1 INTRODUCTION

### 1.1 The context

The interlinked problems in Timor Leste of poorly developed means of earning livelihoods, high urban unemployment and rural underemployment and low living standards are well recognised by the Government of Timor Leste (GoTL) and agencies supporting development efforts in the country. A particularly serious problem is that of youth unemployment. Timor Leste has a young population with an estimated 54 per cent of the people below the age of 20 (DNE, 2008) ${ }^{1}$. An estimated 15,000 young people join the labour force annually, a large number in relation to total employment in the formal sector of about 37,000 . Further, employment in the formal sector appears to be growing slowly with about 400 jobs being created annually, a growth rate of just over 1 per cent per annum. The implication is that most of the young entrants to the labour force continue to rely on the informal sector, either in subsistence activities or low paid informal sector cash earning (MLCR / ILO, 2007²; World Bank, 2007).

GoTL has given a high priority to improving livelihoods and to address the problem of unemployment in general and youth unemployment in particular. The strategy being developed has short-term and long term components. In the short-term, the aim is rapid creation of employment and income generation for unemployed youth and other poor and vulnerable groups. The longer term strategy is development and growth of the non-oil private sector in tandem with improving the skills of the young to match private sector labour requirements.

SEFOPE (Secretaria de Estado ba Formasaun Profisional no Empregu or Secretariat of State for Vocational Training and Employment) is primarily responsible for implementing GoTL policies on employment generation and vocational skills development. ILO, in collaboration with other agencies and donors, has been supporting SEFOPE in (a) developing a long term strategy for improving the employability of the young and their access to employment opportunities, and (b) short-term employment generation through labour intensive (LI) and labour-based (LB) public works.

Examples of short-term employment generation programmes being implemented or being developed by SEFOPE with ILO support include ${ }^{3}$ :

- Cash for Work;
- Labour Intensive component of the Youth Employment Programme (YEP) (with AusAID support);
- TIM-Works (with Norwegian, Irish Aid and EU aid), and
- National Workfare Programme (World Bank in collabouration with a group of donors including AusAID, EU, Irish Aid and ADB).
In addition, other ministries and government agencies also create short-term employment through public works and some NGOs are implementing projects with short-term employment generation components.

[^0]The terms "employment intensive", "labour intensive" and "labour-based" are sometimes used interchangeably. It is necessary to define and use these terms precisely in this report since approaches of different labour intensity with differing emphases on employment creation and infrastructure assets creation and preservation are in use in Timor Leste. The alternative approaches are discussed in more detail in section 3.1. Here, we provide brief definitions to clarify the distinction to indicate how the terms are used in this report.

The terms labour intensive and employment intensive have been used synonymously as approaches which maximize the use of labour. The labour-based approach aims to use a "labour / equipment mix that gives priority to labour, but supplements it with light equipment where necessary for reasons of quality or cost" (Tajgman and de Veen, 1998). It is not purely a device for creating employment but an appropriate technology for improving and preserving infrastructure assets. In this report, the term "employment generating public works" (EGPW) has been used to encompass labour intensive and labour-based approaches.

### 1.2 Terms of reference

This assignment is concerned with GoTL's short-term employment generation strategy implemented through SEFOPE. More precisely, the main purposes of this assignment are to: (a) examine the issue of remuneration for unskilled labour employed on a temporary basis in employment-intensive infrastructure works programmes, and (b) assess labour availability (in effect the need for employment creation on such programmes) in Timor Leste at a broad level. Annex I sets out the terms of reference (TOR). In this section, the major issues to be addressed are highlighted. There is some shift in emphasis in the issues investigated and the scope from the original TOR, notably the need to make a distinction between labour intensive and labour-based public works. This was found to be necessary on more detailed discussions in Dili and examination of the specific context.

There is a lack of consistency on wage rates between agencies engaging unskilled labour for public works as a means of providing cash employment. ILO was paying $\$ 2.00$ per day in the Cash for Work programmes, a practice which has been continued by SEFOPE. The Ministry of Infrastructure (MOI) is reportedly paying $\$ 3.00$ on their road works sites ${ }^{4}$. MOI has allocated funds for labour-intensive rural road works in each of the 13 districts with the work being carried out in close coordination with district administrations (ADB, 2008) with possibility of additional allocation of funds if the outcome of the initial programme is positive.

The MOI labour intensive programme is large with a total of between $\$ 4.9$ and $£ 8.8$ million. One NGO carrying out labour-intensive works on a much smaller scale is paying up to $\$ 4.00$ for a 6 hour workday (deducting $\$ 1.00$ which is placed in an obligatory savings scheme). These variations may reflect differences in the scope and objectives of schemes but they may also be a symptom of the lack of clarity and consistency about the objectives of such programmes.

[^1]There are risks associated with the wage rate for public works programmes being too high or too low. If such programmes are large and the wage rate too high, labour may be attracted away from normal economic activities and the cost of labour in such activities may go up leading to loss of competitiveness of productive sectors. Targeting of the poorest is also more difficult. On the other hand, if the wage rate is too low, its impact on poverty reduction may be inadequate and the effectiveness of the works is likely to be low. Consistency in setting wage rates for public works in line with their objectives is important to avoid competition between projects and programmes with different wage rate levels.

Therefore, in order to guide current as well as future programmes, there is a need to examine labour market conditions and factors which influence unskilled labour wage rates and to make recommendations on a consistent approach to setting wage rates for EGPWPs (employment generating public works programmes). The terms and conditions for casual public works employment should also be specified carefully and distinguished from the terms and conditions for public sector employment but should meet the relevant international conventions on employment reflected in the GoTL labour code.

Use of private sector contractors for implementing public works projects offers a number of advantages which include effective implementation when public sector capacity is limited and efficiency improvements resulting from competition and incentives. Developing the technical and management capacity of the private sector also has longer term benefits (Bentall, Beusch and de Veen, 1999; Malmberg Calvo, 1998). Other forms of contracting such as community contracting and petty contracts may be more appropriate for certain types of works (e.g. small works benefiting local communities). The wage rate issue is somewhat different under contractor operation since public sector agencies will not pay labour directly. Wage rates paid by contractors and their monitoring also need to be considered.

In summary, the terms of reference are concerned with the short-term strategy of employment generation through public works, developing a sustainable labour-based approach for infrastructure development, improvement and maintenance, and especially the appropriate wage rate and scope of such works given the scale of unemployment and underemployment. In the analysis and in making recommendations, account must be taken of the specific economic and labour market features in Timor Leste. In brief, these are: (a) a small formal sector dominated by government and UN and NGO employment; (b) a large subsistence and informal economy, and (c) the sharp differences between Dili and the rest of the country.

### 1.3 Report outline

Section 2 sets out the Timor Leste (TL) economic and labour market context and highlights the aspects to be taken into account in the design of EGPWPs and setting the wage rate. Section 3 starts by outlining wage rate policy and related resource requirement and management aspects of main types of EGPW programmes followed by a review of EGPWPs currently being implemented or being developed by SEFOPE. The purpose of the review is to draw lessons on wage rate policy and labour supply issues on current and future programmes.

Section 4 starts by setting out the approach adopted in undertaking the analysis and evidence used. The reservation wage (RW) concept underlies much of the analysis related to the wage rate.

The main data sources used are: (a) an economic activity and labour market survey with specific questions on availability for public works employment undertaken during the assignment, and (b) TLSLS 2007 data on agricultural wage rates. This is followed by the results of the analysis. Finally, conclusions and recommendations on the wage rate and wage rate policy are brought together in section 5 which also includes estimates of labour availability at the recommended wage rate, estimated welfare impact of earnings from EGPWPs for poor households and estimates of programme costs at the national level.

## 2 TIMOR LESTE ECONOMIC AND LABOUR MARKET CONTEXT

### 2.1 Economic activity and livelihoods

This section provides a brief review of the economic and labour market situation as context. The 2004 Population and Housing Census estimated the population to be just under $925,000^{5}$. The 2007 population estimate is about $1,047,000$ implying an annual growth rate of about 3.6 per cent since the 2004 Census. The population growth rate for the next 7 years is estimated to be 3 per cent per year. Around 24 per cent of the population are estimated to be urban with 14 per cent residing in the major urban centres of Dili and Baucau (UNDP, 2006) though the urban concentration has probably increased temporarily by movement of internally displaced persons (IDPs) ${ }^{6}$.

Timor Leste is the poorest country in the ASEAN region, with non-oil per capita GDP of $\$ 378$ in 2007 (IMF, 2008). It is ranked $150^{\text {th }}$ out of 177 countries according to the 2007/2008 UNDP Human Development Index (HDI) and poverty levels are high. According to World Bank (2003) ${ }^{7}$ based on the 2001 Timor Leste Living Standard Measurement Survey (UNDP, 2001), 40 per cent of the population was below the national poverty line of $\$ 15.44$ per capita expenditure per month (about $\$ 0.55$ per day) ${ }^{8}$.

In general, the incidence of poverty was found to be higher in the west than in the east, and it is higher in rural than in urban areas. Poverty is by and large a rural phenomenon in Timor-Leste. While less than 25 per cent of all urban households were poor in 2001, the corresponding figure for rural areas was over 44 per cent with six out of seven poor living in rural areas at the time of the TLSS 2001 survey. More recent estimates suggest that as much as 42 per cent of the population is now below the national poverty line of $\$ 0.55$ per day suggesting increased poverty incidence since 2001.

As would be expected, the level of poverty is related to precarious livelihoods. About 75 per cent of the population is rural and for over 80 per cent of the labour force, the principal livelihood source is agriculture (TLSLS 2007) ${ }^{9}$ as Table 2.1 shows. The table also shows that the dependence on agriculture for livelihoods has increased since 2001. The share of non-agricultural private sector activity (assuming that most of industry and "wholesale trade, retail, restaurants and hotels" are in the private sector) has declined while the share of employment in public sector activities has increased ${ }^{10}$ indicating that the development of private productive sectors has been weak. Over 50 per cent of urban employed are engaged in agriculture. Two inferences can be drawn from this. The first is that many areas identified as urban retain rural features with people

[^2]using land within the urban areas and outside to engage in subsistence farming or producing crops for the urban market. District level data from TLSLS 2007 shows that even in Dili district, the main economic activity for 29 per cent of those in employment was in agriculture. The second is that lack of urban employment opportunities in other sectors leads to reliance on agriculture.

Table 2.1: Industry of main job in the last 7 days by rural and urban areas (\% of all employed 15 to 64 years old)

|  | $\mathbf{2 0 0 1}$ | $\mathbf{2 0 0 7}$ |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | National | National | Rural | Urban |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Agriculture | 81.6 | 84.3 | 92.5 | 50.5 |
| Industry | 3.9 | 0.9 | 0.4 | 3.1 |
| Wholesale trade, retail, restaurants and hotels | 5.1 | 2.2 | 1.3 | 5.9 |
| Public administration, military | 1.0 | 2.2 | 0.9 | 7.7 |
| Health | 0.4 | 0.9 | 0.4 | 3.0 |
| Education | 2.4 | 2.8 | 2.2 | 5.1 |
| Other community, social and personal services | 2.3 | 1.8 | 0.3 | 8.0 |
| Other | 3.2 | 5.0 | 2.1 | 16.6 |

Sources: TLSS 2001 and TLSLS 2007.
The sectoral composition of non-oil, non-UN GDP (Table 2.2) shows that the value of production in agriculture, forestry and fishing (including commercial farming) is 31.5 per cent. The low proportion of contribution to GDP of this sector, when compared with the very large proportion of population earning livelihoods from farming, indicates that farming, mainly subsistence agriculture, is low productivity and is linked to poverty and food insecurity. WFP (2006) concludes that subsistence agriculturalists' households ${ }^{11}$ have a high incidence of food insecurity and vulnerability.

As in other developing countries, rural households rely on a range of activities to supplement subsistence production. WFP (2006) identifies some main livelihood patterns (Table 2.3). Crop and livestock farmers rely mostly on farming but have some other supplementary activities. For households for whom petty trading and artisanship are the main activities, farming remains an important livelihood source (more than one-third of "income"). On average, regular wage earners and unskilled workers have a lower reliance on farming for income. WFP (2006) also notes that typically more than one household members are engaged in earning livelihoods.

### 2.2 Labour market context

Table 2.4 shows labour force participation by age group. Following standard ILO definitions, the labour force is defined as the economically active population between 15 to 64 years. Economically active persons are either currently employed or unemployed. The former includes those who worked in the last week for at least one hour as well as those who did not work in the last week but have a permanent job. The unemployed are defined as those who did not work in

[^3]the last seven days, did not have a permanent job and were looking for work or were waiting for the busy season.

Table 2.2: Timor-Leste: Non-oil GDP by sectoral origin, 2007 (1)

|  | Millions \$s (3) | Per cent of GDP (4) |
| :--- | ---: | ---: |
| Agriculture, forestry, and fishery | 124.7 | 31.5 |
| Food sector | 90.7 | 22.9 |
| Commercial Agriculture, Forestry, Fisheries | 34.0 | 8.6 |
| Industry and Services | 126.8 | 32.1 |
| Mining \& quarrying (non-oil) | 2.2 | 0.6 |
| Manufacturing | 10.2 | 2.6 |
| Private construction | 19.0 | 4.8 |
| Transport \& communications | 31.0 | 7.8 |
| Wholesale \& retail trade | 31.0 | 7.8 |
| Financial \& other services | 33.6 | 8.5 |
| Public Sector | 201.8 | 51.0 |
| Government services | 112.6 | 28.5 |
| Public utilities | 6.0 | 1.5 |
| Public construction | 25.4 | 6.4 |
| United Nations (2) | 57.7 | 14.6 |
| Total | 453.3 | 114.6 |
| Non-oil GDP, excluding UN | 395.5 | 100.0 |

Sources: Data provided by GoTL and IMF staff estimates.
(1) Data on oil/gas value added are not available.
(2) Includes locally paid compensation of UN peacekeeping mission staff.
(3) At current market prices.
(4) Per cent of non-oil GDP and excluding local compensation of UN peacekeeping staff.

Table 2.3: Contribution of livelihood activities to annual income

| Livelihood <br> Profile | No. <br> HH | \% <br> HH | Primary share | Secondary share | Tertiary share |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Farmers | 670 | $41 \%$ | Agriculture (88\%) | Fishing (4\%) | Livestock (2\%) |
| Livestock Farmer | 363 | $21 \%$ | Agriculture (71\%) | Livestock (20\%) | Natural resources (5\%) |
| Petty trader | 219 | $13 \%$ | Petty trading <br> $(56 \%)$ | Agriculture (36\%) | Wages (5\%) |
| Wage earner | 202 | $12 \%$ | Wages (81\%) | Agriculture (10\%) | Petty trading (2\%) |
| Artisan | 108 | $6 \%$ | Handicraft (39\%) | Agriculture (34\%) | Brewing (17\%) |
| Unskilled labourer | 43 | $3 \%$ | Unskilled labour <br> $(64 \%)$ | Agriculture (17\%) | Handicraft (6\%) |
| Skilled labourer / <br> Trader | 35 | $2 \%$ | Skilled labour <br> $(37 \%)$ | Trading (27\%) | Wages (8\%) |

Source: WFP (2006).

The population out of the labour force comprises those who were neither employed nor unemployed during the last week. They represent those who were not economically active for a variety of reasons including attendance at an educational institution, engagement in household duties, retirement, old age or disability. They also include "discouraged" workers who are unemployed and available for work but not actively seeking employment.

Table 2.4: Labour force participation in the last 7 days: National, urban and rural by gender and age groups

|  | $\%$ of population aged 15 to 64 years) <br> Age groups |  |  |
| :--- | :---: | :---: | :---: |
| National | Rural | Urban |  |
| Total | 63.1 | 68.5 | 49.2 |
| $15-24$ | 42.9 | 50.5 | 26.9 |
| $25-34$ | 67.6 | 71.4 | 59.1 |
| $35-44$ | 76.2 | 78.5 | 68.9 |
| $45-54$ | 79.7 | 82.6 | 69.5 |
| $55-64$ | 76.0 | 78.6 | 64.7 |
| Male | 77.4 | 82.7 | 63.8 |
| $15-24$ | 47.6 | 54.7 | 32.4 |
| $25-34$ | 91.0 | 96.4 | 80.1 |
| $35-44$ | 98.2 | 99.0 | 95.8 |
| $45-54$ | 96.9 | 98.7 | 90.7 |
| $55-64$ | 90.5 | 94.5 | 74.1 |
| Female | 48.5 | 54.1 | 33.8 |
| $15-24$ | 37.7 | 45.8 | 21.0 |
| $25-34$ | 45.7 | 49.1 | 37.4 |
| $35-44$ | 52.5 | 56.5 | 39.6 |
| $45-54$ | 64.3 | 68.3 | 50.2 |
| $55-64$ | 60.3 | 61.8 | 53.6 |
| $S T y r e$ |  |  |  |

Source: TLSLS 2007.
The labour force participation rate refers to the number of persons in the labour force as a proportion of the total population in the 15 to 64 years age range, whereas the unemployment rate refers to the share of the unemployed in the total labour force. The employed include those working in wage employment, non-wage employment and farming. Wage employment, or paid employment, refers to all persons performing some work for wage or salary, in cash or in kind. Non-wage employment, or self-employment, refers to all persons performing some work (other than farming which is identified separately) for profit or family gain, in cash or in kind. Farming refers to all persons working in agriculture, livestock, forestry or fishing.

Table 2.4 shows that rural labour force participation is higher than urban. This is partly because a large proportion of the rural population is engaged in subsistence farming and other activities to earn a living even if the time for which they are so engaged may be limited and returns from such employment may be low. In urban areas, participation rates are lower because of limited employment opportunities and possibly withdrawal from the labour force ("discouraged workers"). The lower participation rates for younger persons (15 to 24 age group) are likely to be
partly because of a proportion in this age group engaged in education and partly because of the "discouraged worker" syndrome ${ }^{12}$.

There are also large differences between male and female participation rates. To a great extent, this may be explained by women being kept out of the labour market because of family and household commitments. However, Das and O'Keefe (2007) note that women's participation rates may be under-reported because of the informal, intermittent and sometimes unpaid participation in the labour force. While women's apparent participation rates are lower, Table 2.5 shows that female unemployment rates are higher implying that women entering the labour market are finding it more difficult to gain employment than men.

According to TLSLS 2007 (Table 2.5), the overall level of unemployment is 6.7 per cent, significantly lower than in 2001. However, it should be noted that TLSLS 2007 was undertaken in the aftermath of the civil unrest of 2006 and a number of public works programmes were in progress. About 13.8 per cent of those in employment at the time of the 2007 survey were engaged by public works programmes compared with 9.8 per cent in 2001.

Table 2.5 shows some large differences in unemployment between rural and urban areas and between age groups. The rural unemployment rate is lower overall and for every age group. This is typical of developing countries where livelihoods are dominated by subsistence agriculture. Open unemployment is low in the rural population since most of the members of the rural labour force have no option but to engage in subsistence or supplementary activities such as petty trading. The low rural unemployment rate conceals high levels of underemployment and associated poor living standards and poverty as evidenced by higher rural poverty incidence.

The conventional measure of unemployment in TLSLS 2007 understates unemployment since it does not include "discouraged workers" i.e. those who did not work during the past 7 days but did not look for a job as they saw no prospect of finding any work. However, the number of truly discouraged workers who make no effort to seek employment might be limited since those who cannot find work but have no other means of support have no option but to engage in subsistence or very low earning informal activities implying underemployment.

The high urban unemployment and the age distribution of the urban unemployed are clearly causes for concern. The urban young are most afflicted by unemployment with 35 per cent of those in the 15 to 24 years age group being unemployed. Contributory factors are the slow growth of employment opportunities in comparison with the fast growth of the urban labour force through natural increase and attraction of rural youth to urban areas. Another aspect is the higher unemployment of educated youth who can remain unemployed with family support in contrast with the uneducated with no family support who have no option but to take up informal employment or self-employment to survive.

[^4]Table 2.5: Unemployment rate in the last 7 days: By rural and urban areas and regions according to gender and age groups

|  | 2001 |  |  |  |  |  |  |  | Oecussi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age group | National | National | Rural | Urban | Baucau, Lautem, Viqueque | Ainaro, Manatuto, Manufahi | $\begin{gathered} \text { Aileu, } \\ \text { Dili, } \\ \text { Ermera } \end{gathered}$ | Bobonaro, Covalima, Liquica |  |
| Total | 9.9 | 6.7 | 5.0 | 12.7 | 11.4 | 5.8 | 6.2 | 5.4 | 1.0 |
| 15-24 | 23.7 | 18.4 | 14.1 | 35.0 | 45.4 | 19.9 | 13.9 | 12.3 | 3.4 |
| 25-34 | 9.7 | 7.4 | 5.1 | 13.6 | 12.2 | 5.2 | 8.1 | 5.8 | 0.2 |
| 35-44 | 4.9 | 1.6 | 1.3 | 2.5 | 1.2 | 2.9 | 1.4 | 1.8 | 1.1 |
| 45-54 | 3.1 | 0.9 | 0.6 | 1.9 | 1.4 | 0.1 | 0.6 | 1.5 | 0.0 |
| 55-64 | 4.0 | 0.7 | 0.7 | 0.7 | 0.0 | 2.2 | 0.0 | 1.6 | 0.0 |
| Male | 8.0 | 5.1 | 3.1 | 11.9 | 7.6 | 3.4 | 6.8 | 2.7 | 1.2 |
| 15-24 | 20.9 | 15.3 | 9.7 | 35.5 | 31.0 | 14.5 | 16.2 | 8.1 | 3.3 |
| 25-34 | 8.0 | 5.6 | 3.1 | 11.5 | 9.4 | 2.3 | 7.7 | 2.1 | 0.4 |
| 35-44 | 3.5 | 1.1 | 0.7 | 2.6 | 1.3 | 0.7 | 1.7 | 0.1 | 1.7 |
| 45-54 | 1.5 | 0.3 | 0.0 | 1.6 | 0.0 | 0.0 | 1.0 | 0.1 | 0.0 |
| 55-64 | 2.6 | 0.3 | 0.2 | 0.8 | 0.0 | 1.6 | 0.0 | 0.3 | 0.0 |
| Female | 13.7 | 9.2 | 8.0 | 14.5 | 18.6 | 11.2 | 5.5 | 9.4 | 0.7 |
| 15-24 | 27.9 | 22.6 | 20.0 | 34.3 | 65.7 | 31.4 | 10.9 | 17.9 | 3.6 |
| 25-34 | 13.5 | 10.9 | 8.6 | 18.1 | 18.8 | 12.2 | 8.7 | 12.3 | 0.0 |
| 35-44 | 7.7 | 2.5 | 2.5 | 2.3 | 0.7 | 9.5 | 0.7 | 4.5 | 0.1 |
| 45-54 | 5.5 | 1.6 | 1.5 | 2.4 | 3.1 | 0.4 | 0.0 | 3.0 | 0.0 |
| 55-64 | 7.5 | 1.4 | 1.5 | 0.5 | 0.0 | 3.8 | 0.0 | 3.6 | 0.0 |

Source: 2001 TLSS and 2007 TLSLS.
After independence, the population has grown at a rate of about 3.5 per cent a year and about 70 per cent of the population is under 30 years old. This demographic profile implies higher number of young workers entering the workforce in coming years (Figure 2.1). Thus, a major employment policy challenge in the short to medium term is the need to absorb the large inflow of young workers entering the labour market. Reintegration of some 100,000 IDPs, about 30 per cent of whom continue to reside in camps in and around the capital, is also a challenge.

The above review outlines features of the rural and urban labour markets. It will clearly be necessary to take account of these differences in examining wage rate issues for EGPWPs. In summary, the context is:

- a small formal sector dominated by the public sector and UN activities;
- large subsistence and informal economy;
- the difference between Dili (and other large urban areas) and the rest of the country;
- rural underemployment and low incomes, and
- high urban unemployment.

Figure 2.1: Timor-Leste: Proportion of working-age and youth populations (2000-2050)


Source: Das M B and O'Keefe P (2007).
The rural economy and labour market are characterised by:

- underemployment and low incomes rather than open unemployment;
- complex set of labour transactions e.g. wage labour, labour exchanges, sharecropping and social obligations;
- range of subsistence or market activities e.g. hunting, fishing, selling livestock, trading and wage employment;
- greater poverty incidence than in urban areas, and
- therefore, typically public works programmes will offer an additional income earning opportunity to supplement livelihoods.

The urban economy and labour market are characterised by:

- higher open unemployment and employment seeking than in rural areas;
- formal and informal wage employment and informal self employment are the main means of livelihoods supplemented by subsistence production;
- relatively simple labour transactions in contrast with rural, and
- therefore, public works programme employment may be the main or relatively more important means of livelihood for poor households than in rural areas.

A high priority has to be given to creating employment opportunities for women and the young, especially the urban young.

## 3 WAGE RATES FOR CASUAL EMPLOYMENT ON PUBLIC WORKS PROGRAMMES: PRINCIPLES AND PROGRAMMES IN TIMOR LESTE

### 3.1 Types of programmes and their implications

Table 3.1: What kinds of programmes? Objectives and implications

|  | Safety net <br> (implies universality) | Labour intensive (LI) | Labour-based (LB) |
| :--- | :--- | :--- | :--- |
| Brief <br> description | Employment guarantee of <br> a given number of days <br> for all who claim the right. | Creation of maximum <br> employment for a given <br> level of resources. | Appropriate labour and light <br> equipment combination for <br> efficient infrastructure <br> works. |
| Resource <br> commitment <br> and <br> implications | Generally high and <br> dependent on the wage <br> rate and take up | Number of jobs created <br> depends on the budget <br> and wage rate. | Labour-based methods <br> used if technically <br> satisfactory and cost <br> effective. Wage rate affects <br> cost. |
| Implications <br> for the wage <br> rate | Must be low in relation to <br> prevailing wage rates and <br> opportunity cost of labour. <br> Also for budget reason. <br> But less impact on welfare <br> if too low. | Needs to be low in <br> relation to prevailing <br> wage rates and <br> opportunity cost of <br> labour. Also for budget <br> reason. <br> But less impact on <br> welfare if too low. | Needs to be set in relation <br> to prevailing wage rates <br> and opportunity cost of <br> labour. Also budget and <br> cost effectiveness <br> considerations. <br> Efficiency wage premium <br> may be required. |
| Beneficiary <br> Targeting | Self targeting. | Self targeting if wage rate <br> sufficiently low. <br> Otherwise, additional <br> criteria needed for <br> beneficiary selection or <br> rationing. | Self targeting if wage rate <br> sufficiently low. Efficiency <br> wage premium may imply <br> need for beneficiary <br> selection or rationing. |
| Effectiveness <br> in asset <br> creation and <br> maintenance | Generally low - difficulty of <br> providing adequate <br> technical support and <br> supervision. | Generally low - difficulty <br> of providing adequate <br> technical support and <br> supervision. | Very effective if adequate <br> technical support and well <br> managed and supervised. |

As noted in section 1.1, a number of EGPW ${ }^{13}$ programmes are either being implemented or developed by SEFOPE. There are also other programmes and projects which have labour intensive public works components. EGPW programmes vary in their objectives and emphases. For example, some may focus on employment creation targeted at the poorest with less importance given to the output while others may give higher priority to the quality of work done.

[^5]It is therefore important to be clear about such differences. In this section we summarise important features of three main types of programmes, safety nets, labour intensive and labourbased. In section 3.2, we review recent, current and future programmes in Timor Leste using the framework developed in section 3.1.

Safety net type programmes offer guaranteed employment of certain number of days in an year at a given wage rate to all those who wish to take advantage of $\mathrm{it}^{14}$. The resources required for safety nets depend on the need for such employment to supplement household incomes and the wage rate being offered. An important attraction of safety nets is that they are self targeting. It is up to a person or a household to participate if the safety net wage rate is sufficiently attractive given the alternative livelihood opportunities and the requirement to supplement household income.

The higher the wage rate, the higher the number of people wishing to take advantage of the safety net. Therefore, in setting the wage rate there is a need to balance the provision of benefits to the poor on the one hand and on the other hand, the cost of the programme and the possible damaging effects on other economic activities by drawing labour away from them.

Labour intensive programmes are effective safety nets for households who have persons who are able to offer physical labour though it is possible to design projects to enable disabled or older persons to participate. Alternative approaches are required for other vulnerable groups. If such programmes are not effective in creating or preserving assets, the cost of providing the benefit could be high ${ }^{15}$ and cash transfers may be a more cost effective method for supporting poor households. A problem with cash transfers is the difficulty of targeting the poorest and most vulnerable groups. For a review of international evidence on features of safety nets and their pros and cons, see James Smith and Subbarao (2003) and Devereux and Solomon (2006). The latter is not confined to safety nets but also examines evidence on labour-intensive and labour-based programmes. In making recommendations for Timor Leste, this report draws on relevant international evidence from these and other sources.

The aim of employment intensive programmes is to create the maximum amount of employment within a given budget. By implication, as little as possible is spent on tools and equipment to maximise the amount paid to labour ${ }^{16}$. If the wage rate for labour intensive projects is too high in relation to the prevailing market wage rate, the problems will be fewer persons benefiting from the programme and damaging effects on other economic activities. Further, more people will want to benefit from the project than resources permit and therefore criteria and procedures are needed to select beneficiaries.

Labour-based programmes are generally less labour intensive than the previous two options. The choice of technology, while preferring to use labour is determined by effectiveness and efficiency in achieving the outcomes (i.e. creation, rehabilitation or maintenance of infrastructure assets).

[^6]Typically, for rural road rehabilitation and construction, the choice of technology which is found to be most appropriate is labour supported by light equipment (for example, small mechanical rollers for compaction and trucks for hauling material over longer distances). Maintenance is by its nature generally more labour intensive but the appropriate combination of labour and tools and equipment is determined by technical and cost effectiveness considerations.

Clearly, for a given amount of resources, the LB approach will typically create less employment than the LI approach. However, the LB approach is more effective in creating and maintaining infrastructure assets than safety net or LI programmes. This is partly because of the objectives of safety net and LI type programmes (greater emphasis on employment creation than output) and partly because of the difficulty of managing and providing the technical inputs and supervision on such programmes. Motivation of workers and retention of workers and achieving adequate productivity levels if wage rates are too low is also a problem ${ }^{17}$.

Another important difference between the labour-based and the other two approaches is that the former offers a long-term sustainable approach to rural road construction, rehabilitation and maintenance with the benefits of local employment creation and cost-effectiveness. In the TL context, the scope for the LB approach is large since it could be technically more effective and cheaper than the equipment-based approach for constructing, rehabilitating and maintaining district, sub-district and other rural roads and other infrastructure works. There is evidence that local contractors use a labour-based approach which could be improved through technical assistance.

Safety net and labour intensive approaches provide short-term income support through employment though of course such support may be continued over some years if the situation requires it. The LI approach may also be appropriate for small community projects which do not require much equipment ${ }^{18}$.

### 3.2 Labour intensive and labour-based approaches: Wage rate differentiation and working conditions

There is a need to make a distinction between labour intensive and labour-based employment and the wage rate with the latter possibly requiring a higher "efficiency wage" ${ }^{19}$ because LB workers will be required to work under closer supervision and achieve higher productivity. If LB and LI components are implemented side by side through direct employment by public agencies and wage rate differentiation between LB and LI is not possible, there will be a need to make adjustments to the LB productivity levels required, for example through adjusting the daily tasks ${ }^{20}$. International experience shows that the consequences of too low wages on labour-based

[^7]programmes are: (a) high labour turnover and absenteeism, and (b) low productivity of workers who remain on the project (Tajgman and de Veen, 1998).

If LB programmes and components operate through private contractors ${ }^{21}$ and there are no statutory constraints (e.g. a too high minimum wage or too low statutory wage rate), contractors will set wage rates based on market conditions. For publicly or donor funded programmes, an important requirement is that market conditions do not lead to exploitation of workers through very low wages and harsh working conditions. One solution is to provide the contractors with a guide on the wage to be paid and employment conditions but they should be free to pay more and offer better conditions if they see fit. We consider this in more detail in the TL context in section 3.3.

In summary, the above discussion highlights the importance of recognising the difference between different types of programmes and their implications for wage rates and the balance between employment and asset creation or preservation. Our main concern is with wage rates on programmes with different objectives and emphases operating side by side. If the wage rate is too high (especially on large scale employment intensive programmes) the consequences are:

- fewer jobs created and therefore fewer people benefit;
- less effective targeting of poor;
- distorting effects on other sectors, and
- loss of competitiveness of the private sector.

Possible implications of wage rates being too low are:

- insufficient welfare impact (especially for workfare type programmes), and
- low morale, high turnover and low productivity on labour-based programmes and projects.


### 3.3 Labour intensive and labour-based programmes in Timor Leste

This section starts with a review of recent, current and proposed employment intensive programmes under the former Ministry of Labour and Community Reinsertion (MLCR) and SEFOPE with a view to assessing the nature of the programmes and implications for wage rate policy and for implementation and resource requirements. The framework outlined in section 3.1 is used for the assessment. Following the 2006 crisis, the former MLCR implemented Cash for Work projects to create short-term employment especially for unemployed youth and IDPs. MLCR was supported by UNDP and ILO launching the Servi Nasaun (Work for the Nation) project which ran from July to December 2006 and provided over 460,000 days of employment to 37,000 beneficiaries.

At MLCR request, UNDP and ILO followed up on the Servi Nasaun Project with the Serbisu Ba Dame (Work for Peace) Project funded by the European Union with a focus on rural areas (EU / UNDP / ILO, 2007). The immediate objective of the project was to reduce the potential for conflict and further destabilisation by providing short-term employment, especially for youth in rural areas. Serbisu Ba Dame provided short-term employment to over 45,000 participants,

[^8]creating a total of more than 600,000 days of employment in all 13 districts over a period of about six months (end February to September 2007).

In spite of the short duration, the project was designed and implemented as labour-based and not labour-intensive (see section 3.1 for explanation of distinction). The public works under this project did not simply provide cash transfers through the most labour-intensive approach but the labour input was combined with light equipment and skills and capabilities were developed at the district level to ensure that the works were properly designed, planned, supervised and implemented. Core activities focused on rural roads repair / rehabilitation, irrigation canals cleaning and restoration, weed control and drainage cleaning of national and district roads identified through a community-driven process, involving local authorities at the district, subdistrict, village (suku ${ }^{22}$ ), and sub-village (aldeia) levels.

The project exceeded expectations on temporary employment creation by including almost double the initially proposed number of beneficiaries and providing over 70 per cent more workdays of employment ${ }^{23}$. While the labour-based approach was used successfully in spite of the short duration, more maintenance work on roads, drainage and irrigation works was done than planned and less construction / rehabilitation of roads because of lack of light equipment. The project paid a wage of $\$ 2.00$ per day. Overall, at this wage rate, even with the rationing of employment per person to fifteen days, the number of persons wishing to participate exceeded the number of jobs the project could offer. Project beneficiaries were identified and selected in consultation with District administrations and sub-district leaders (chiefs of sukus and aldeias) ${ }^{24}$.

EU / UNDP / ILO (2007) identified a number of aspects related to the wage rate and labour supply which are of relevance for future programmes. One of these is the avoidance of adverse impacts on existing productive activities including subsistence agriculture. Almost 93 per cent of project participants were either reliant on subsistence production or unemployed. Most of the participants put a high value on the cash income provided by the project and stated that they could reschedule farm work around the temporary project employment or share tasks on the farm with other family members. However, since project employment was limited to 15 days per person, it can be assumed that such accommodation was relatively easy. Even with such a small number of days of project employment, a small minority of beneficiaries (mainly in Oecusi ${ }^{25}$ ) indicated that they had chosen not to plant a second maize crop to take up project employment.

A lesson for future large scale labour-based and labour intensive programmes offering longer periods of employment is that they should schedule work to avoid heavy use of labour during busy agricultural seasons, typically planting and harvesting. Since much of subsistence farming activity is seasonal and not full-time and alternative employment opportunities are scarce, there is ample scope for such scheduling.

[^9]Another aspect to be considered, especially for labour-based works ${ }^{26}$, is adequacy of labour supply in areas with low local population. It is normally preferable to avoid setting up work camps near project sites if local labour supply is insufficient because of low population density. International experience indicates that workers are often willing to set up temporary work camps or make other accommodation arrangements to participate in EGPW projects. This is confirmed by some casual evidence in Timor Leste. In Maliana sub-district in Bobonaro district people were willing to migrate temporarily to take up employment. In some localities there are traditional sharecropping arrangements between land "owners" in the valleys and people living in the hills under which the latter move to the valleys and live in shelters in fields during busy periods and receive a share of the crops in payment ${ }^{27}$. If it is necessary to operate in areas with low population density, the feasibility of operating in this way (i.e. by recruiting persons who move temporarily to the project locality) in such areas should be tested once labour-based operations become established in more densely populated areas.

EU / UNDP / ILO (2007) notes that in Covalima, nearby projects run by NGOs and a private contractor affected wage expectations, the work ethic and attendance. Competition for labour between public works projects and other employers is an important issue which needs attention in determining the wage rate policy as well as strategy and operations of larger programmes and will be considered later.

While the 'Work for Peace' project was being implemented, GoTL allocated $\$ 1.5$ million from its own budget to the project. However, it had to be spent within less than two months, i.e. by the end of the financial year on $30^{\text {th }}$ June 2007. Given the very short timeframe, the funds were spent on labour intensive activities which could be mobilized very rapidly and did not require as much technical input, planning and supervision. This resulted in one project with two approaches and two financial sources. One requiring less technical and supervisory inputs (government funded labour intensive), and the other requiring more technical and supervisory inputs and somewhat longer intervention period (EU funded labour-based). The government funded labour-intensive component has been continued in 2008 with increased funding. The wage rate on this component has remained at $\$ 2.00$ per day. If labour-based and labour intensive approaches operate side by side in the future, an important issue to be addressed will be making a clear differentiation between them with respect to the technical and management aspects as well as the wage rate. We return to this question later.

The AusAID funded Youth Employment Promotion (YEP) project (AusAID / SEFOPE / ILO, 2008) with AudAID funding of $\$ 6.45$ million between March 2008 and January 2012 has four main components. Three of these components suppor SEFOPE in developing: (a) longer term youth employment policies; (b) infrastructure for guiding the young to training opportunities and transition from school to work, and (c) the capacity to provide market driven vocational education and training.

[^10]Our concern here is not with these three components but with the fourth component which supports SEFOPE in developing the capacity to create a "safety net for most deprived rural poor through the organisation of labour intensive public works in critical periods and geographical areas". While the term "safety net" is mentioned, the project is not a comprehensive safety net in the strict sense (see section 3.1 above). It aims to "target areas that have high unemployment and poverty rates, to counter humanitarian and social shocks and provide cash transfers to poor households during critical times". According to the project document, the focus appears to be on a labour intensive rather than a labour-based approach though the more detailed description of the component refers to the second objective as "providing local communities with quality rural infrastructure". As noted in section 3.1, producing good quality rural infrastructure with a purely labour-intensive approach is difficult partly because light equipment is required for some operations and partly because of the need for technical supervision. It is clearly necessary to clarify whether the mode of operation is labour-based or labour intensive.

A project funded by the Norwegian government (Kingdom of Norway / SEFOPE / ILO, 2008), henceforth Tim-Works Norway, with Norwegian government funding of USD 2.5 million between July 2008 and January 2010 seeks to build on the success of the earlier Cash for Work programmes to develop a more sustainable labour-based strategy ${ }^{28}$ for rehabilitation and maintenance of district and rural roads. Project duration of 18 months is planned and it is expected to be a primer for a larger scale nationwide workfare and rural infrastructure development programme to commence in 2009. Tim-Works Norway aims to rehabilitate / construct 131 km of roads and undertake periodic maintenance on 15 km and routine maintenance on 334 km of roads, generating 396,300 workdays and providing short-term employment to 8,460 beneficiaries, at least 30 per cent being women ${ }^{29}$.

While the employment generation and physical outputs produced during implementation are significant, an even more important objective is to contribute to developing a more locally sustainable approach to road maintenance and rehabilitation by institutionalising "labour-based technology and methodologies within the regular public works programmes". To this end, TimWorks Norway aims to develop: (a) national and local capacities to plan and programme labourbased road rehabilitation and maintenance, and (b) implementation capacity of local contractors and community groups. The policies, strategies and implementation guidelines developed during the project are intended to support GoTL in developing a sustainable policy on roads rehabilitation and maintenance ${ }^{30}$ while contributing to much needed employment generation.

Even this brief description indicates that Tim-Works Norway adopts a labour-based as opposed to a labour intensive approach with labour costs estimated to be between 30 and 50 per cent of rehabilitation / construction costs and 70 to 80 per cent of maintenance costs. Developing private sector contractor capacity and use of contractors for rehabilitation / construction is envisaged though there is scope for alternative approaches such as community contracting and petty contracting for smaller more local rehabilitation projects and maintenance.

[^11]For wage rate policy and wage rates there are two implications. The first is that there is a need to make a clear distinction between employment on labour-based projects and labour-intensive projects, the latter with the primary aim of providing cash transfers. This could be through an efficiency wage premium as noted in section 3.2 though this would raise the issue of apparently competing projects offering different wage rates. The second is that if implementation is through private sector contractors or community contracts, the actual wage rate paid to workers cannot be directly controlled by project management though the minimum acceptable wage rate could be stipulated and monitored.

The Tim-Works Norway project document assumes that labour availability is unlikely to be a problem but recognises the need to ensure that: (a) the wage rate is in line with prevailing local market wage rates and returns to labour for work of a similar nature (e.g. in agriculture or fishing) to minimize disruption of such activities, and (b) infrastructure works should be scheduled to avoid competition for labour during the peak agricultural activity periods.

The World Bank is currently working with GoTL and a number of donors and agencies to develop a large National Workfare Programme (World Bank, 2008) to be launched in 2009 to address the serious interrelated problems of poverty, unemployment and poor infrastructure in $\mathrm{TL}^{31}$. Two components are proposed. The first would serve as a social protection mechanism by quickly establishing a large number of temporary employment opportunities through public works through a Rapid Employment Generation Scheme (REGS) to provide income for the most vulnerable households and support social stabilization and income smoothing.

The public works activities would mainly focus on simple infrastructure rehabilitation and maintenance, including feeder road rehabilitation and maintenance, cleaning of irrigation ditches, tree planting and social service infrastructure. The component is expected to provide temporary employment for up to 300,000 beneficiaries ( 20 million days of employment) over a period of five years assuming a daily wage rate of $\$ 2.00$ per person, and 60 days of work per year for a person. The daily wage rate would be set to encourage the participation of the poorest quartile of the population and activities will be structured to encourage participation of women as well as persons with physical disabilities.

The aim of the second component is to use labour-based methods to deliver local infrastructure improvements and maintenance. The component is estimated to provide temporary employment for 60,000 beneficiaries ( 4 million days of employment, assuming a wage rate of $\$ 2.00$ per day) over five years. Financing of investment in small infrastructure works in all 443 sukus is envisaged. Public works could include, but would not be limited to, construction, rehabilitation and maintenance of feeder roads, building community social infrastructure, and terracing and public irrigation systems. The broad objective of infrastructure investments is expected to be to increase access to markets and basic services by supporting an accelerated expansion of GoTL's Local Development Programme (LDP). The link with the LDP and district and lower administrative level participation in prioritising, planning and implementation is also expected to facilitate decentralisation of the development effort.

[^12]It is proposed that the REGS and LB components will be supported by systematic capacity building and training efforts for beneficiaries and implementing partners. It is anticipated that over time, the first component will taper off as the second grows in scale ${ }^{32}$. The first component clearly falls in the labour-intensive category. The proposal to undertake relatively simple works which are capable of being done labour intensively recognises the limitations of the labourintensive approach. The provision of technical input and supervision for this component building on the experience and capabilities developed so far would improve the effectiveness of these works while providing income support as long as the works are limited to those capable of being done labour intensively and provision for light equipment support is made if necessary. For the labour-based component, the greater importance of developing the management and technical capacity is recognised and underlies the proposed slower build-up.

In principle, the labour-based approach would be appropriate for civil works where (a) technically it is at least as effective as equipment-based approaches, and (b) its cost is comparable with or lower than the equipment-based alternatives. Apart from the contribution to employment and income generation, the labour-based approach has the added advantage of developing a locally sustainable approach to infrastructure development and preservation. Casual evidence suggests that local contractors use broadly labour-based approaches because of lack of equipment and availability and cost of labour. Tim-Works Norway and the labour-based component of the World Bank initiative provide a foundation for developing the scope for the labour-based approach in TL.

### 3.4 Differentiating between $L I$ and $L B$ components in TL and wage rate policy

On the SEFOPE programmes reviewed above, no distinction has been made between LI and LB approaches with respect to wage rate policy. The working assumption of the World Bank initiative is that the wage rate would be $\$ 2.00$ per day for the LI and LB components. As noted earlier, it may be necessary to differentiate between the labour intensive and labour-based components with regard to the wage rate for the proposed programme under the World Bank initiatives as well as other LI and LB programmes. The need to differentiate between LI and LB poses a dilemma with respect to the overall EGPW strategy and design of specific programmes within it.

For a number of reasons, a uniform EGPW wage rate is desirable. A uniform wage rate would reduce competition between projects and programmes. It would also make it easier to communicate programme objectives and the related standard wage rate to different levels of government administration and programme beneficiaries. If it is necessary to differentiate between LI and LB wage rates, the differentiation should be shown to be clearly justified and defensible on the grounds of the nature of work being undertaken and implementation mode.

An approach to achieving the differentiation between LI and LB components and programmes has been outlined here. The first element of differentiation is the types of infrastructure works to

[^13]be undertaken by LI and LB methods. Arguably, the more important and larger works could be labour-based and smaller projects for the benefit of the local community could be labour intensive. Initially, the larger works referred to here are district and sub-district level roads and other infrastructure such as irrigation works. The proposed differentiation would require a consistent system of classification of local infrastructure, a detailed inventory of existing infrastructure assets, listing of new projects and clear criteria for determining which types of works are appropriate for labour intensive and labour-based approaches.

The second element of differentiation is the mode of implementation of LI and LB components or programmes. In the short-term, the mode of implementation for LI has been direct employment by public sector agencies. The public sector agencies could be central government ones such as SEFOPE and other ministries such as MOI or local government. In the longer term this mode could continue or preferably be superseded by more decentralised community based works through community contracting or small local contractors with GoTL setting a uniform wage rate for such works or providing funding to local communities to manage the payment of labour.

From the outset, the mode of implementation for LB components would be through contractors who would be responsible for paying the workers. The uniform LI wage rate would not apply to LB workers. Contractors would be free to set the wage rate taking account of local labour market and efficiency wage considerations. However, there would be a stipulation in LB contracts that the wage rate cannot be lower than the uniform LI wage rate. The differentiation between LI and LB components and programmes in (a) the types of projects undertaken, and (b) the mode of operation makes it possible to differentiate on wage rates between the two types of components while avoiding competition between them.

There could also be justification in setting different wage rates for urban and rural areas or for different districts on the grounds of differences in labour market conditions and living costs reflected in differences in prevailing wage rates. Objections against such geographical differentiation are the complexity of setting and adjusting different wage rates and the perception of inequity between Regions and Districts. Arguably, a uniform wage rate is equitable in that the same amount is paid for similar work and the targeting of poor people across the country is at the given uniform wage rate ${ }^{33}$. Some limited geographical differentiation, for example between rural and urban areas, may be justified and considered at a later stage. Initially, on the balance of arguments, a single uniform wage rate for LI programmes is reasonable. It is also in keeping with the current SEFOPE practice.

Other government ministries, international agencies and NGOs undertake projects and programmes with labour intensive infrastructure works components. These include MOI and other ministries (e.g. Agriculture and Health), CARE International (on a small scale as Social Development component of ADB funded Infrastructure Improvement Project under MOI), and EDC (Education Development Center Inc) on behalf of USAID. As noted earlier, MOI has allocated $\$ 375,000$ per district for LI works with the possibility of additional funding of $\$ 300,000$ per district. If MOI pays $\$ 3.00$ or $\$ 5.00$ per day while Cash for Work pays $\$ 2.00$ per day and the proposed workfare scheme aims to pay $\$ 2.00$ per day, competition is introduced between public sector initiatives possibly leading to wage inflation and suggests lack of coherence on policy.

[^14]Based on the preceding consideration of the pros and cons, there is a strong case for a uniform wage rate for public sector LI projects and programmes implemented by GoTL ministries and agencies and local government with the aim of employment creation targeted at the poor.

The primary motive for the CARE International and EDC projects are not short-term employment creation and / or infrastructure improvement on a large scale. The CARE project is small, operating in two locations in Bobonaro with the aim of improving about 15 km of suku and aldeia roads. An elaborate and thorough procedure for selecting the most vulnerable members of local communities is applied and beneficiaries are provided with short-term employment in labour intensive road rehabilitation and maintenance. The wage rate is $\$ 4.00$ per day but of this $\$ 1.00$ goes into savings. These savings and life skills and occupational training during project employment are intended to support beneficiaries in developing sustainable livelihoods. EDC, funded by USAID, aims to prepare youth for better self-employment and employment in rural areas. Civil construction is one of the options for work skills training and some young have been put on a work site for a hospital. The wage rate is $\$ 2.00$ per day in line with the Cash for Work wage rate. If interventions such as the CARE and EDC projects remain on small scale and have different objectives, they would not be significant competitors to large scale LI and LB programmes.

In summary, a clear policy on wage rates is important for developing a coherent employment generation strategy. The recommendations on this aspect are as follows:

- There should be a single uniform wage rate for LI works under SEFOPE and ideally for all GoTL LI projects.
- Differentiation between the LI and LB wage rates should be clearly justified.
- The first element of differentiation is that the more important and larger works (e.g. on district and sub-district roads and irrigation canals) could be labour-based and smaller projects for the benefit of local communities (e.g. suku and aldeia roads and tracks, water tanks and markets) could be labour intensive.
- The second element of differentiation is the mode of implementation. For LI components, direct employment by public sector agencies to enable the necessary rapid expansion could be the mode of implementation. In the longer term this mode would be superseded by more decentralised community based works through community contracting or small local contractors. The mode of implementation for LB components would be through private sector contractors.
- The uniform LI wage rate would not apply to LB works. Contractors would be free to set the wage rate taking account of local labour market and efficiency wage considerations but with the stipulation in LB contracts that the wage rate cannot be lower than the uniform LI wage rate.
- A broad approach to the differentiation between LI and LB programmes and components has been outlined here. Further work is required to develop and elaborate the approach, notably (i) preparation of a detailed inventory of existing infrastructure assets, listing of new projects and clear criteria for determining which types of works are appropriate for LI and LB approaches, (ii) developing the insitutional framework and support for implementing the two approaches, and (iii) appraising the scope for substituting the LB approach for the EB approach where appropriate on technical and cost effectiveness grounds.


## 4. WAGE RATES AND LABOUR SUPPLY: EVIDENCE AND ANALYSIS

### 4.1 Considerations in setting the appropriate wage rate

In section 3 we indicated the aspects to be considered in setting wage rates for EGPWPs. In brief, the wage rate should be set to target the poorer sections of the population and to minimise adverse impacts on other economic activities while at the same time it should provide a reasonable level of welfare support and incentive to work productively where asset creation and preservation through public works has a high priority (i.e. for the LB approach). The analysis concluded that there should be a uniform LI wage rate but there is a need to differentiate between the LI and LB wage rates. Since LB programmes and components are being implemented through private contractors, they would set LB wage rates with the stipulation that the wage rates could not be lower than the uniform LI wage rate. This section examines the question of the appropriate wage rate for EGPWPs in TL.

If a comparable wage rate determined in the market is available and there are no distortions affecting the market, this would be the appropriate wage rate to use ${ }^{34}$. There is however often a problem of identifying a wage rate which is comparable in the specific context (e.g. in a rural location where similar wage employment is limited). The prevailing market wage rate is appropriate for EGPWP employment if the additional demand for labour created by an EGPWP project does not drive up the wage rate. Whether and to what extent this might happen depends on the wage elasticity of labour supply ${ }^{35}$. If the numbers of unemployed and/or underemployed are large in relation to planned public works employment generation and the unemployed and underemployed are willing to work at or close to the prevailing market wage rate (i.e. labour supply is highly elastic), the prevailing market wage rate would be appropriate.

Therefore, before accepting the prevailing wage rate as a guide for setting the EGPWP wage rate, it is necessary to get some indication of the labour supply response to alternative wage rates above and below the market wage rate. The approach adopted here to obtain this indication is based on the reservation wage (RW) concept which is defined as the lowest wage rate at which a person will participate in a given type of employment. For a given wage rate and a given type of employment, the labour supply would be made up of all those available for work whose RW is below the given wage rate.

Available evidence on the distribution of wage rates and earnings in activities comparable to manual public works employment and survey evidence on acceptable wage rates for such work have been used in conjunction with the RW concept to assess the labour supply response to different wage rates and propose the uniform wage rate for labour intensive public works. Typically, public works employment opportunities will be close to the homes of potential workers and will be of relatively short duration ( 1 to 3 months). For such employment in rural areas, the agricultural wage rate is a suitable comparator with the qualification made above that acceptable agricultural wage rates paid within a community may be lower than what would be

[^15]acceptable for public works and other externally provided employment opportunities. Suitable urban comparators are more problematic because of the influences of public sector and UN on wage rates. Earnings in informal sector self-employment are possible comparators.

Further, since EGPWPs will consist of a number of rural and urban projects aiming to recruit workers locally, EGPWP labour requirement, if not carefully planned, could be too large in comparison with labour availability in some localities, driving up local wage rates or causing local labour shortages. Therefore an important issue for planning EGPWPs is to ensure that planned employment is compatible with labour availability at the local level. The latter will be broadly dependent on the local labour supply response and the size of population. An important question is the national scale of employment generation required and related programme costs. These aspects are examined in Section 5.

### 4.2 Rural wage rates and labour supply: Evidence from TLSLS 2007

The Timor Leste Survey of Living Standards (TLSLS 2007) is the second national survey of living standards for Timor Leste based on a nationally representative sample of 4,500 households ${ }^{36}$ to provide information for national planning and policy making. The survey encompasses a broad scope of topics typically covered under more specialised surveys. The labour force survey, agricultural labour data and demographic elements of the survey are of special relevance for this assignment. Further analysis of the data, for example to revise the poverty line is in progress. The basic data tables published in DNE (2008) and the raw data from the agricultural labour module have been especially useful ${ }^{37}$.

Evidence from DNE (2008), especially on the labour force, employment and unemployment has been used earlier in this report. Data from the agricultural labour module have been used in this section as evidence on agricultural wage rates. The agricultural labour module of TLSLS 2007 included a set of questions related to wage employment in agriculture. The questions asked of each household were number of farm workers hired by a household, number of days for which they were hired, type of payment (in cash, kind or both or compensation by labour exchange) and workers' daily pay where the payment was in cash, kind or combination of cash and kind.

Of the 4477 households included in TLSLS 2007, 796 (about 18 per cent) made use of labour from outside the household for farming. Table 4.1 shows the breakdown of payment modes. In total there were 1656 episodes of hiring agricultural labour for which data on the mode of payment was available ${ }^{38}$. The total number of hiring episodes was more than double the number of households hiring labour. On average, each household hiring labour had two episodes of hiring. The number of workers hired per episode ranged between 1 and 100 with a median of 4 and mean of 5.38 . This suggests that the households hiring labour included those with smaller farms and those owning larger commercial farms. Most of the employment was short term with

[^16]more than 50 per cent of the employment episodes lasting 10 days or less and 99 per cent lasting 30 days or less (mean 13 days).

Table 4.1: Farm workers : Type of payment

| Type of payment | Frequency | Per cent |
| :--- | ---: | ---: |
| Paid in kind | 265 | 16.0 |
| Paid in cash | 251 | 15.2 |
| Both in-kind and cash | 16 | 1.0 |
| Exchanged by labour | 1124 | 67.9 |
| Total | $\mathbf{1 6 5 6}$ | $\mathbf{1 0 0 . 0}$ |

Source: TLSLS 2007

The table confirms that a very large proportion of households using outside labour used the labour exchange method of compensation which may be straightforward mutual sharing of tasks between households during busy periods or sharecropping arrangements. Of the remainder, about half are paid in kind, most of the reminder in cash and a few in a combination of cash and kind.

The query on the daily wage rate required information on cash payment as well as the cash value of payment in kind. TLSLS 2007 had 532 records of employment of paid labour. Of these, 16 (after adjusting for missing data) showed zero pay and have therefore been excluded ${ }^{39}$. While there were 532 valid records of episodes of employment, a large number were repeat hiring by a smaller number of households. In all 292 households out of a total of 4477 households in TLSLS 2007 (or 6.5 per cent of households in the sample) hired farm workers for pay. It is reasonable to assume that larger farms including some operating on a commercial basis are over-represented among the hirers of farm labour.

On examination, it was clear that the raw data on the daily agricultural wage rate was problematic. In many cases the data appeared to show the total wage bill related to an episode of hiring labour rather than the daily wage rate per worker, for example an episode of hiring 3 persons for 7 days showed an apparent wage rate of $\$ 21$ per day. It could not be assumed that all data were consistently recorded in this way since the daily wage rate per person appeared to be correctly recorded in some cases. In a few others, more than one person was employed for multiple days but it appeared that the total wage paid per worker for multiple days appeared to have been recorded. The procedure adopted to "adjust" the data on the daily agricultural wage rates was in the following 4 steps:

## Step 1

Computation of the daily wage rate per person by dividing the figure in the agricultural wage rate column by the number of person days of employment. This step appeared to provide plausible daily wage rates for about 82 per cent of cases.

[^17]
## Step 2

A visual check of the computed daily wage rates to review all the wage rates which appeared to be too low, below $\$ 0.7$ per day.

## Step 3

In about 4 per cent of all cases, judgement was used to determine that the actual wage rate recorded was the correct daily wage rate and therefore the step 1 computation was not appropriate.

## Step 4

In about 14 per cent of all cases, judgement was used to determine that the wage rate shown was for a single person over multiple days and not for all persons employed over the multiple number of days.

While this procedure (especially steps 3 and 4) is crude, it is adequate for providing an approximate distribution of daily wage rates in agriculture for our purpose. Further, by reexamining and "adjusting" the very low wage rates, the risk of understating wage rate levels has been avoided. If the data are to be used for further more detailed analysis, it will be necessary to revisit the raw data or the original coding. Another qualification when using the distribution of wage rates is that valuing payment in kind may be imprecise unless the amount of payments in kind were recorded and valued carefully.

Table 4.2: Distribution of agricultural wage rates - TLSLS 2007 agricultural labour module

| Wage rate <br> range | Number | Per <br> cent | Cumulative <br> per cent |
| :--- | ---: | ---: | ---: |
| $\$ 0.5$ or less | 11 | 2.1 | 2.1 |
| $\$ 0.51$ to $\$ 1.00$ | 324 | 62.8 | 64.9 |
| $\$ 1.01$ to $\$ 1.50$ | 72 | 14.0 | 78.9 |
| $\$ 1.51$ to $\$ 2.00$ | 49 | 9.5 | 88.4 |
| $\$ 2.01$ to $\$ 2.50$ | 30 | 5.8 | 94.2 |
| $\$ 2.51$ to $\$ 3.00$ | 14 | 2.7 | 96.9 |
| $\$ 3.01$ to $\$ 4.00$ | 8 | 1.6 | 98.4 |
| $\$ 4.01$ to $\$ 5.00$ | 6 | 1.2 | 99.6 |
| More than <br> $\$ 5.00$ |  |  |  |
| Total | $\mathbf{5 1 6}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{1 0 0 . 0}$ |

Source: TLSLS 2007

Figure 4.1: Distribution of daily agricultural wage rates (TLSLS 2007)


Table 4.2 and Figure 4.1 show the adjusted distribution of the daily agricultural wage rate derived from TLSLS 2007. Evidently, about 65 per cent of those employed in paid short-term agricultural work are paid $\$ 1.00$ or less per day (cash or equivalent value in kind) and about 88 per cent are paid $\$ 2.00$ or less. The mean and median daily wage rates for the sample are $\$ 1.4$ and about $\$ 0.8$ respectively.

The distribution of agricultural wage rates from the sample can be used to broadly represent the labour supply curve (relationship indicating the number of persons available for employment at different wage rates) for agricultural labour under the following assumptions:

- The reservation wage rate ${ }^{40}$ (RW) for those who have undertaken agricultural employment is at or below the wage rate at which they have been employed.
- Therefore, the distribution of the observed wage rates is the distribution of the upper limits of RWs for the persons employed.
- In a market with excess labour supply, those who have been employed and sampled by TLSLS 2007 are random selections of those who are available for employment.

[^18]- Therefore, the distribution of wage rates and upper limits of RWs of agricultural workers in the TLSLS 2007 sample are broadly representative of the upper limits of RWs of those available for employment.

Figure 4.2: Imputed labour supply response: TLSLS 2007 agricultural wage labour


Table 4.3: Imputed labour supply: TLSLS 2007 agricultural wage labour

| Wage rate <br> (\$) | Labour supply (1) | Labour supply <br> elasticity (2) | Average labour <br> supply elasticity (3) |
| ---: | ---: | ---: | ---: |
| 0.50 | 2.1 | 29.45 |  |
| 1.00 | 64.9 | 0.43 | 2.81 |
| 1.50 | 78.9 | 0.36 | 0.49 |
| 2.00 | 88.4 | 0.26 | 0.40 |
| 2.50 | 94.2 | 0.14 | 0.29 |
| 3.00 | 96.9 | 0.04 | 0.16 |

(1) As per cent of those available for agriculture employment.
(2) Percentage change in labour supply for a 1 per cent change in the wage rate.
(3) Average elasticity for a change between two price levels. For example, 2.81 in the last column is the average elasticity between $\$ 0.50$ and $\$ 1.00$.

Figure 4.2 and Table 4.3 show the labour supply response imputed from the TLSLS 2007 agricultural wage rate distribution, represented as the percentage of those available for off-farm employment. For example, based on the cumulative distribution of wage rates in Table 4.2, just under 65 per cent of all those available for agricultural employment are willing to work for $\$ 1.00$
per day or less. The figure and table also show that labour supply is highly elastic between the wage rates of $\$ 0.50$ and $\$ 1.00$ per day. The 100 per cent change in the wage rate between $\$ 0.50$ and $\$ 1.00$ would lead to an increase of almost 30 times in the labour supply ${ }^{41}$. The elasticites are lower for higher wage rates but this is not surprising since very high proportions of those available for agricultural employment are willing to work for relatively low wage rates as Figure 4.2 and Table 4.3 show ( 65 per cent at up to $\$ 1.00$ and 79 per cent at up to $\$ 1.50$ per day) leaving small proportions with higher RWs.

If reliable, the labour supply curve is clearly useful for setting the wage rate to target the poorest. Arguably, a wage rate of $\$ 2.00$ per day may be justified on the grounds that virtually all those who are seeking rural unskilled employment are from low income households. However, it would be difficult to justify a wage rate much above $\$ 2.00$ because of the steeply rising supply curve and low supply elasticities. Based on TLSLS 2007 evidence, a case could also be made for a wage rate well below $\$ 2.00$ to target the poorest.

However, some qualifications should be made to the foregoing analysis. Given the data problems discussed earlier requiring substantial cleaning and adjustments, while broad conclusions can be drawn from the evidence, too much reliability cannot be ascribed to the precise results. Further, the sample was geographically dispersed. Differences in local characteristics such as alternative employment opportunities imply that at a given wage rate there may be variations in local labour availability ${ }^{42}$. Another aspect to be considered is the type and conditions of agricultural employment and whether it is precisely comparable with public works employment to be offered. Therefore, TLSLS 2007 evidence has been used in conjunction with direct evidence from a survey on stated availability for employment at specified wage rates (see sections 4.4 and 4.5) to make recommendations on the appropriate wage rate.

### 4.3 Urban market wage rates: Some indicative evidence from YES 2007

Given the serious urban unemployment problem, especially for the young, LI and LB programmes are needed for urban areas and evidence earnings in comparable urban activities would be helpful. While the agricultural wage rate provides a good indicator of the unskilled market determined wage rate in rural areas, finding similar evidence for urban areas is more problematic. As noted in section 2, a large proportion of formal employment is in the public sector or with UN and NGOs. Wage rates in such employment are not market determined and generally higher than in the private sector and have the effect of pulling up private sector wage rates.

Earnings in informal sector unskilled employment and self-employment could be indicators for setting public works wage rates but reliable evidence on these is limited. One recent source of data is MLCR / ILO (2007) which was a wide ranging youth ${ }^{43}$ employment survey (YES) designed to inform policy making (henceforth YES 2007).

[^19]The survey included separate questionnaires for youth in fulltime education and those economically active (i.e. those either in employment, self-employment, subsistence production or seeking employment). The survey indicated that a large proportion of youth aspired to formal sector employment. However, because of lack of such employment opportunities, most youth end up farming in rural areas and self-employment in urban areas. Therefore, arguably, earnings in self-employment, especially in self-employment undertaken by unskilled youth, is a possible comparator for unskilled wage rates especially for the young in urban areas. The evidence on earnings of young self-employed is especially relevant since the focus in urban areas is on the high youth unemployment rates and the need to provide them with employment.

It was necessary to deal with a number of issues related to the data and the nature of selfemployment before the survey data could be used. Some of those who had been engaged in selfemployment were not regularly so engaged, many working one or two days per week. The selfemployed were asked to provide information on their net weekly earnings (i.e. earnings after deducting costs). For those working one or two days per week, information on the precise number of days worked was not available and it was not possible to estimate daily earnings for them. Therefore, earnings data where available for only those who were self-employed for 5 days per week or more were used to estimate daily equivalent earnings rates.

Self-employed in the YES 2007 sample included highly skilled persons (for example, IT specialists and graphic designers) earning high wage rates and high RWs. Another category of well rewarded self-employed had specialist skills and/or owned their own businesses (for example, furniture makers). Others described themselves as being in business and had high earnings (in excess of the equivalent of $\$ 20.00$ per day). Since our concern is with earnings of unskilled self-employed as a comparator for wage rates in unskilled public works employment, the skilled self-employed and entrepreneurs have been excluded.

After excluding the part time self-employed and the skilled and entrepreneurial high earners, records for 213 self-employed remained. Table 4.4 and Figure 4.3 show the distribution of daily equivalent earnings for the remaining 213 self-employed persons who were mainly engaged in various forms of petty trading. The earnings of about 19 per cent of this sample of self-employed were $\$ 1.00$ per day or less and for about 44 per cent, the daily earnings were $\$ 2.00$ or less. The sample also included over 20 per cent of self-employed with earnings equivalent to more than $\$ 5.00$ per day. These are likely to be more successful traders operating from market stalls and small shops.

If the YES sample is assumed to be broadly representative of the urban youth population, for at least 43 per cent of urban youth seeking unskilled employment, $\$ 2.00$ per day is an acceptable earnings rate. However, self-employment cannot be compared precisely with wage employment since the former implies some entrepreneurship and active pursuance of opportunities with an expectation of higher rewards. Nevertheless, on the assumption that the RWs of the selfemployed in the sample are broadly representative of the RWs of the unemployed urban young, the indicative evidence is that $\$ 2.00$ per day is acceptable to 44 per cent of urban youth for unskilled work. Those who are available at this wage rate are also likely to be from poor households. This evidence has been used in conjunction with our own survey evidence in making recommendations on the appropriate wage rate.

Table 4.4: Distribution of daily equivalent earnings rates - YES 2007

| Daily earnings rates <br> range | Number | Per <br> cent | Cumulative per <br> cent |
| :--- | ---: | ---: | ---: |
| Up to $\$ 0.5$ | 8 | 3.8 | 3.8 |
| $\$ 0.6$ to $\$ 1.00$ | 33 | 15.5 | 19.2 |
| $\$ 1.01$ to $\$ 1.50$ | 9 | 4.2 | 23.5 |
| $\$ 1.51$ to $\$ 2.00$ | 43 | 20.2 | 43.7 |
| $\$ 2.01$ to $\$ 2.5$ | 10 | 4.7 | 48.4 |
| $\$ 2.51$ to $\$ 3.00$ | 18 | 8.5 | 56.8 |
| $\$ 3.01$ to $\$ 5.00$ | 43 | 20.2 | 77.0 |
| $\$ 5.01$ to $\$ 10.00$ | 45 | 21.1 | 98.1 |
| More than $\$ 10.00$ | 4 | 1.9 |  |
| Total | $\mathbf{2 1 3}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{1 0 0 . 0}$ |

Source: YES (2007) for Table 4.4 and Figure 4.3.

Figure 4.3: Distribution of daily equivalent earnings rate (YES 2007 self-employed)

## Frequency



### 4.4 SEFOPE / ILO economic activity, labour availability and wage rate survey

While it was possible to obtain evidence on wage rates and earnings from TLSLS 2007 and YES 2007, more specific data were needed on the likely labour supply response to public works programmes at alternative wage rates. It was also necessary to obtain information on the characteristics of those willing to take up such employment. A survey was conducted as part of this assignment to collect the relevant information (henceforth referred to as the SEFOPE/ILO Labour Survey).

The scope of the survey and the choice of sample locations were determined in consultation with ILO personnel in Dili. To obtain a representative national sample, eight districts representing all five regions were selected ${ }^{44}$. Table 4.5 shows the eight sample districts and the Regions they are in and Figure 4.4 shows the locations of all districts. Table 4.6 summarises some relevant information on the sample districts. Leaving aside Dili with its high urban densities, the population densities range between 33 persons per $\mathrm{km}^{2}$ (Lautem and Manufahi) and 135 persons per $\mathrm{km}^{2}$ (Ermera). The main crops in most districts are rice, maize and cassava though their relative importance differs between districts. In Ermera, coffee is an important cash crop and coffee is also grown in the uplands of Covalima, Bobonaro and Manufahi. These district features provide a context for examining the evidence from our survey.

Within each district, two sub-districts were selected for the survey giving a total of 16 subdistricts. Within each sub-district, a cluster of 25 households was selected randomly in one or two sukus (Annex II provides the full list of sukus in which households were selected). Therefore, the survey was planned to include 400 households. Four of the sixteen sub-districts selected were urban or peri-urban, two in Dili and one each in Bobonaro and Baucau. Therefore, 25 per cent of the households included in the survey are urban or peri-urban, broadly reflecting the proportion of urban and peri-urban population in TL.

Table 4.5: SEFOPE/ILO Labour Survey: Districts and sub-districts

| Region | District | Sub-districts |  |
| :---: | :--- | :--- | :--- |
| 1 | Baucau | Baucau (1) | Venilale |
| 4 | Bobonaro | Maliana (1) | Bobonaro |
| 4 | Covalima | Fohoren | Zumalai |
| 3 | Dili | Dom Aleixo (1) | Cristo Rei (1) |
| 3 | Ermera | Hatolia | Atsabe |
| 1 | Lautem | Lautem | Iliomar |
| 2 | Manufahi | Alas | Fatuberliu |
| 5 | Oecusi | Passabe | Nitibe |
| (1) Urban or peri-urban sub-districts. |  |  |  |

[^20]Table 4.6: Overview of population and agricultural characteristics of SEFOPE / ILO Labour Survey sample districts

| District | Population (Census 2004) | Population density persons per $\mathbf{k m}^{2}$ | Agricultural overview |
| :---: | :---: | :---: | :---: |
| Baucau (Northern coast, east of Dili) | 104,571 | 70.0 | Important food producing area with surplus production. Main crops: rice, beans, groundnuts, cassava, sweet potatoes, copra and candlenut. Main livestock are buffalo, cattle and goats. |
| Bobonaro <br> (One of two western most districts, excluding Oecusi). Long border with West Timor, Indonesia. | 82,385 | 60.2 | Very productive for crops and livestock. Maize and rice are the main crops. Other crops include red and mung beans, peanuts and some coffee. Because of cross-border trade, agricultural inputs are relatively easily available and cheaper. Main livestock are buffalo, cattle and goats. |
| Covalima <br> (One of two western most districts, excluding Oecusi). Long border with West Timor, Indonesia.) | 55,941 | 45.6 | Main crops are rice (irrigated in the lowlands) and maize especially close to the Indonesian border. Other crops are soybean, mung bean, peanuts and coffee. Because of cross-border trade, agricultural inputs are relatively easily available and cheaper. Main livestock are buffalo, cattle and goats. |
| Dili <br> (District containing the capital. Large urban population.) | 167,777 | 451.0 | Limited land area for agriculture. Significant share of population practice agriculture including cultivation of fruits and vegetables for the urban market. |
| Ermera <br> (Inland district south-east of Dili. Hilly terrain.) | 103,169 | 138.3 | Coffee is an important cash crop. District produces 60 per cent of TL's organic coffee. Other major crops are maize cassava and rice to a lesser extent. Main livestock are horses, buffalo and goats. |
| Lautem (Eastern most district.) | 57,453 | 33.8 | Major maize producing area. Other important crops are rice, cassava, beans and vegetables. Some irrigation. Main livestock are buffalo, cattle and goats. |
| Manufahi (District with a southern coastline in the central part of the country.) | 44,235 | 33.4 | Main crops are maize and rice. Other crops are beans, vegetables, fruits and some coffee. Main livestock are buffalo, cattle and goats. |
| Oecusi <br> (Enclave within Indonesian territory.) | 58,521 | 71.8 | The main crops are maize, cassava, groundnuts and sweet potatoes. The main livestock are cattle, buffalo and goats. Combination of farming and livestock husbandry sometimes leads to labour shortages. Because of crossborder trade, agricultural inputs are relatively easily available and cheaper. |

Sources: FAO / WFP (2007) on agricultural characteristics and DNE on population.

Figure 4.4: Districts in Timor Leste


Source: TLSLS 2007
The main focus of the survey was on the economic activities and availability for employment of household members fifteen years or older. The questionnaire included a set of questions typical in labour force surveys (see Annex III for the questionnaire in English) for comparability with economic activities which could be compared with economic activity and labour force data from other sources such as TLSLS 2007. In addition, there were specific questions on availability for public works. The first of these asked, for each person fifteen years or older in the household, whether he/she was available for "manual work in road improvement, such as digging earth or hauling" if such work is offered at a wage rate of $\$ 1.00$ per day. If the person was not willing to work for $\$ 1.00$ per day, a further question was asked to inquire whether the person would be available at $\$ 2.00$ per day.

While a reasonable response may be expected if the question is repeated once with a higher wage rate, i.e. $\$ 1.00$ followed by $\$ 2.00$, it was thought that repeating the same question with higher wage rates would introduce an element of bargaining with the respondent speculating how far the enumerator was willing to go. Therefore if the response to the question on willingness to work for $\$ 2.00$ was negative, the follow-up inquiry was the minimum acceptable pay for manual work. The choice of $\$ 1.00$ and $\$ 2.00$ per day was partly based on evidence on wage rates in agriculture and partly because SEFOPE Cash for Work currently offers $\$ 2.00$ per day. The open question on the wage rate at which a household member would be willing to work if $\$ 2.00$ was too low was intended to provide data on a subjectively stated RWR if it was higher than $\$ 2.00$.

There are clearly problems associated with a subjective statement of the willingness to work for a given wage rate since there may be discrepancies between a stated intention and actual conduct.

The analysis of agricultural wage rates from TLSLS 2007 (see section 4.2 above) based on the actual wage rates at which persons have taken up employment and evidence on earnings from self-employment from YES 2007 helps to corroborate the evidence on the stated acceptable wage rates from the SEFOPE / ILO Survey.

The SEFOPE / ILO Labour Survey also included general questions about household characteristics. Questions on income and expenditure would have provided important insights on household characteristics. However, they were excluded because the survey had to be conducted over a short period of time and obtaining reliable income and expenditure data is generally more difficult and requires more interview time with households and repeat visits. Instead of questions on income and expenditure, respondents were asked for some qualitative and subjective indicators of living standard. These included questions on the construction material of the home, ownership of certain assets and whether and for how long adults or children in the household go hungry. These, along with questions on the size of the household farm and ownership of livestock, have been used to infer relationships between living standards and willingness to participate in public works programmes at given wage rates.

During data checking and cleaning, some omissions and errors were found ${ }^{45}$. One of the enumerators in Manufahi asked the economic activity questions for the respondent who was either the head of household or another responsible person but not for the remainder of household members 15 years or older. As a consequence, the number of persons in the Mannufahi sample is lower. Since the respondent is likely to have been an older member of the household, the sample possibly under-represents younger persons in the one sub-district in Manufahi. Further data checking and cleaning were necessary before the analysis to deal with recording errors and missing values and to resolve inconsistent responses.

While the original aim was to include 400 households in the survey, enumerators were asked to select three spare randomly selected households in case it was not possible to interview all the households initially selected. Some of the enumerators interviewed the "spare" households as well and therefore in all 410 households were interviewed. The total number of persons 15 years or older in the 410 households for whom economic activity data were collected was $1196^{46}$, i.e. an average of 2.93 persons 15 years or older per household.

The geographical spread of the sample locations makes it possible to arrive at reasonably robust conclusions at the national level and in comparing the rural and urban situation. In the following analysis, some observations on samples from different districts have been made. However, these observations should be treated with caution since samples in each district or sub-district are small and from clusters of households in a small number of localities. Therefore, any differences between samples may not necessarily represent differences between districts but the specific features of sample localities.

[^21]
### 4.5 SEFOPE / ILO Labour Survey: Household and economic activity overview

Table 4.7: SEFOPE / ILO survey: Average household size

| Districts | Mean | Maximum | Minimum |
| :--- | ---: | ---: | ---: |
| Baucau | 5 | 8 | 2 |
| Bobonaro | 6 | 12 | 2 |
| Covalima | 5 | 11 | 2 |
| Dili | 7 | 14 | 1 |
| Ermera | 4 | 9 | 2 |
| Lautem | 6 | 12 | 1 |
| Manufahi | 5 | 11 | 1 |
| Oecusi | 5 | 11 | 2 |
| All districts | $\mathbf{5 . 6}$ | $\mathbf{1 4}$ | $\mathbf{1}$ |

Table 4.7 shows the average size of households by district samples and for all districts. The average of 5.6 for all districts is almost identical to the average for TLSLS 2007. Table 4.8 summarises the main means of livelihoods of the sample households. The largest category is "sale of farm produce and services" which is to be expected given the dominance of farming as a livelihood means. "Other non-farm income" includes sale of non-farm products such as fish and wood and other forestry products and trading. The large "no income" category suggests that a large proportion, about one-third of households are out of the cash economy. For about 10 per cent of households, "salaries / wages" are the main source of livelihood which may be salaried jobs in the public or private sector or informal sector wages.

Table 4.8: Main source of income for household

| Source of income | Number | Per cent |
| :--- | ---: | ---: |
| Salaries / wages | 40 | 9.9 |
| Remittances | 3 | 0.7 |
| Pensions or grants | 5 | 1.2 |
| Sale farm products and services | 162 | 39.9 |
| Other non-farm income | 56 | 13.8 |
| No income | 140 | 34.5 |
| Total | $\mathbf{4 0 6}$ | $\mathbf{1 0 0 . 0}$ |

Table 4.9 shows the main income source of households by district. Salaries and wages as the main sources of income are concentrated in the urban sub-districts in Dili and Bobonaro as would be expected ${ }^{47}$. In Dili, for about 40 per cent of sample households, "salaries/wages" are the main source of income but for 28 per cent of households, "sale of farm products" is the most important source. It is striking that the "no income" category is concentrated in four districts, Baucau and Lautem in Region 1, Manufahi in Region 2 and Covalima in Region 4, though as noted above, this may reflect the local situation in the sample localities rather than the district. It is also likely

[^22]that some of those in the "No income" category may have occasional sales of products or offfarm income but do not consider these to be their "main source of income". There may also be some ambiguity between the "sale of farm products and services" and "no income" categories.

Table 4.9: Main household income source by district

| District | Main income source |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Salaries <br> /wages | Remittances | Pensions <br> or grants | Sale of <br> farm <br> products <br> and <br> services | Other non- <br> farm <br> income | No <br> income |  |
| Baucau | 0 | 0 | 0 | 12 | 0 | 38 | 50 |
| Bobonaro | 15 | 0 | 0 | 23 | 10 | 7 | 55 |
| Covalima | 1 | 0 | 0 | 8 | 10 | 33 | 52 |
| Dili | 20 | 2 | 5 | 14 | 7 | 1 | 49 |
| Ermera | 0 | 0 | 0 | 30 | 20 | 0 | 50 |
| Lautem | 3 | 1 | 0 | 6 | 8 | 31 | 49 |
| Manufahi | 0 | 0 | 0 | 20 | 1 | 30 | 51 |
| Oecusi | 1 | 0 | 0 | 49 | 0 | 0 | 50 |
| Total | $\mathbf{4 0}$ | $\mathbf{3}$ | $\mathbf{5}$ | $\mathbf{1 6 2}$ | $\mathbf{5 6}$ | $\mathbf{1 4 0}$ | $\mathbf{4 0 6}$ |

Table 4.10 summarises the approximate farm size distribution by households. The results should be interpreted with caution because respondents may not know the farm sizes with any precision. Nevertheless, as would be expected, farm sizes are small in the Dili sample. Many of the Dili "farms" are likely to be small garden plots though sale of farm products is important since the local urban market offers opportunities for selling fruit, vegetables and small livestock.

Table 4.10: Farm size distribution by district

|  | FarmSize |  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | :---: | ---: | ---: | ---: |
|  | Less than <br> half hectare | Between <br> half and 1 <br> hectare | Between 1 <br> and 5 <br> hectare | Between 5 <br> and 10 <br> hectare | Between <br> 10 and 20 <br> hectare | Size not <br> known | Total <br> Baucau$\quad 26$ |

The survey evidence shows that the crops grown by sample households broadly reflect the agricultural characteristics of the districts. As Table 4.11 shows, there are variations between
districts on whether and how often adults are hungry ${ }^{48}$. On this evidence, the sample locations in Baucau, described in Table 4.6 as an "important food producing area with surplus production" and Ermera with coffee as an important cash crop appear to be the most prosperous followed by the Covalima sample location. Adding the "often" and "always" categories indicates that Manufahi and Lautem are the worst off. Surprisingly, the stated incidence of hunger in Dili is high in comparison with the better off rural districts.

Table 4.11: Whether and how often adult household members are hungry

| District | Whether and how often adults are <br> hungry |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Never | Seldom / <br> sometimes | Often | Always | Total |
| Baucau | 50 | 0 | 0 | 0 | 50 |
| Bobonaro | 18 | 28 | 2 | 7 | 55 |
| Covalima | 21 | 11 | 12 | 1 | 45 |
| Dili | 13 | 14 | 0 | 18 | 45 |
| Ermera | 50 | 0 | 0 | 0 | 50 |
| Lautem | 6 | 17 | 22 | 2 | 47 |
| Manufahi | 5 | 0 | 2 | 40 | 47 |
| Oecusi | 14 | 11 | 25 | 0 | 50 |
| Total | 177 | 81 | 63 | 68 | 389 |

Table 4.12: Young leavers in past 12 months

|  | District |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Baucau | Bobonaro | Covalima | Dili | Ermera | Lautem | Manufahi | Oecusi |  |
| Yes | 0 | 3 | 2 | 1 | 5 | 4 | 9 | 0 | 24 |
| No | 45 | 52 | 34 | 42 | 42 | 40 | 32 | 49 | 336 |
| Don't know | 0 | 0 | 6 | 1 | 1 | 3 | 11 | 1 | 23 |
| Not applicable (no children in household) | 5 | 0 | 10 | 4 | 2 | 3 | 0 | 0 | 24 |
| Total | 50 | 55 | 52 | 48 | 50 | 50 | 52 | 50 | 407 |

Young people may leave households which are unable to support them or to seek earning opportunities though there may be other reasons for children leaving a household. A question on whether any children ( 5 to 17 years age range) had left the household was included in the questionnaire survey. As Table 4.12 shows, children had left about 6 per cent of households in the last 12 months. Two of the district samples with higher than average number of households with children leaving, Manufahi and Lautem, are also the samples with the highest incidence of hunger. The Ermera sample has a higher than average number of children leaving but as the largest producer of coffee, the district is well placed agriculturally. Two factors at the district

[^23]level which may explain the high number of children leaving Ermera households are the high population density and the relative proximity of Ermera to Dili ${ }^{49}$.

Next we outline the age distribution of those in the labour force age group (persons 15 years and older) and the economic activities of those in the labour force. Table 4.13 shows the age distribution of those 15 years or older. Normally the 65+ age group is excluded from the labour force age group. They have been included here because a number of them claimed to be economically active on the family farm and available for off-farm employment. As noted earlier, the proportion in the young age group may be somewhat understated because for half the sample households in Manufahi, data were only collected on one adult household member. Excluding Manufahi would make very small differences (typically much less than 0.5 per cent) in the percentages in Table 4.13.

## Table 4.13: Age distribution of SEFOPE / ILO household members 15 years or older

|  | Number | Per cent | Cumulative <br> per cent |
| :--- | ---: | ---: | ---: |
| 15 to 19 | 209 | 17.5 | 17.5 |
| 20 to 24 | 144 | 12.0 | 29.5 |
| 25 to 29 | 129 | 10.8 | 40.3 |
| 30 to 39 | 251 | 21.0 | 61.3 |
| 40 to 55 | 302 | 25.3 | 86.5 |
| 56 to 65 | 102 | 8.5 | 95.1 |
| 65 plus | 59 | 4.9 | 100.0 |
| Total | $\mathbf{1 1 9 6}$ | $\mathbf{1 0 0 . 0}$ |  |

Table 4.14 shows the breakdown of those who are 15 years or older by type of economic activity and reasons for not working. The breakdown is shown as per cent of population 15 years and older and as per cent of the labour force. The latter excludes those in the $15+$ age category but not available for work because they are "homemakers", "too young or in full-time education" or "too old or infirm". As expected, nearly 72 per cent are in subsistence production with a further 9 per cent engaged in self employment which may include some larger enterprises but is mostly likely to be small scale informal petty trading and artisanship. Economically active according to this table are 87 per cent of the total population in the $15+$ age range implying that the remaining 13 per cent are economically inactive.

The conventionally defined unemployed are only 6.3 per cent of the labour force. A further 2.4 per cent are unemployed but not looking for employment and could be identified as discouraged workers ${ }^{50}$. However, 2.4 per cent probably seriously understates the number of discouraged workers because a large number of such workers are engaged in subsistence production in the absence of employment opportunities. Those who are economically active, especially in subsistence activities, are likely to include persons engaged in low income underemployment and

[^24]willing and able to take up off-farm employment opportunities even if they are not actively seeking employment. Whether discouraged workers and those engaged in subsistence activities are available for employment is probed further by inquiries on whether a person would take up suitable employment if offered and the specific questions on availability for manual work at $\$ 1.00, \$ 2.00$ or higher.

Table 4.14: Type of economic activities or reasons for not working: SEFOPE / ILO sample

| Economic activity or reason for not working | Number | Per cent of 15+ <br> population | Per cent of <br> labour force |
| :--- | ---: | ---: | ---: |
| Government (including police, military, teacher) | 15 | 1.3 | 1.5 |
| UN | 12 | 1.0 | 1.2 |
| NGO (paid or voluntary) | 17 | 1.4 | 1.7 |
| Employment in private sector | 33 | 2.8 | 3.2 |
| Self employment (including partnership) | 91 | 7.7 | 8.9 |
| Subsistence farming, fishing or other | 740 | 62.8 | 72.2 |
| Looking for work and available to start work | 65 | 5.5 | 6.3 |
| Unemployed, not looking | 25 | 2.1 | 2.4 |
| Subsistence and homemaker | 27 | 2.3 | 2.6 |
| Homemaker | 36 | 3.1 |  |
| Too young or scholar | 66 | 5.6 |  |
| Too old or infirm | 51 | 4.3 |  |
| Total | 1178 | 100.0 | 13.0 |
| Not in labour force | 153 | $\mathbf{8 7 . 0}$ |  |
| Labour force |  |  | $\mathbf{1 0 0 . 0}$ |

The SEFOPE / ILO survey included questions on wage rates and earnings ${ }^{51}$ for those employed, self-employed or farming. Tables 4.15 and 4.16 summarise the results. In total the survey was able to obtain information on earnings for 301 persons which is just under one-third of those employed or engaged in production. The remainder were either unwilling to provide the information or such information was not available. The breakdown of economic earnings by economic activity in Table 4.16 shows that high proportions of those in employment and selfemployment provided information on earnings but such information was provided by small numbers of those in farming. This is understandable since many of those in subsistence farming may have very limited or occasional incomes. Table 4.15 shows that of those who provided information on earnings, for 43 per cent the earnings were the equivalent of $\$ 1.00$ or less per day and for nearly 57 per cent, they were $\$ 2.00$ or less per day. The proportions are most likely to be understated since a much smaller proportion of persons in farming, in which earnings are much lower than in other economic activities, have reported earnings.

The breakdown by economic activity in Table 4.16 shows that those in government, UN and NGO employment have higher earnings as expected with all but two NGO workers earning more than $\$ 3.00$ per day equivalent. There is a much wider range of earnings for those in private sector employment and self employment. Informal inquiries with petty traders in a market centre in

[^25]Ainaro indicated earnings from selling vegetables in the $\$ 0.50$ to $\$ 1.50$ per day range. Net earnings of small shops were in the $\$ 5.00$ to $\$ 10.00$ per day range. Workers employed by a local contractor were paid $\$ 50.00$ per month while casual workers engaged by a large contractor on a daily basis were paid $\$ 3.00$ per day.

Earnings from farming were generally at the lower end with 65 per cent being $\$ 1.00$ or less per day and 84 per cent being $\$ 2.00$ or less. The earnings from farming include those from sale of farm produce and therefore the evidence cannot be compared precisely with that from the TLSLS 2007 agricultural wage rates module. Nevertheless, the distribution of earnings per day in farming are broadly consistent with the distribution of agricultural wage rates obtained from TLSLS 2007 (section 4.2 above). The evidence on earnings in Table 4.16, that from the TLSLS 2007 agricultural wage rate module and on self-employment earnings from YES 2007 (section 4.3) are useful comparators for the SEFOPE / ILO survey evidence on willingness to work at $\$ 1.00$ and $\$ 2.00$ per day.

Table 4.15: Earnings range for those in employment, self-employment and in farming (1)

| Earnings range (daily equivalent) | Number | Per cent | Cumulative per cent |
| :---: | :---: | :---: | :---: |
| \$0-\$0.5 | 79 | 26.2 | 26.2 |
| \$0.6-\$1.0 | 51 | 16.9 | 43.2 |
| \$1.1-\$2.0 | 41 | 13.6 | 56.8 |
| \$2.1-\$3.0 | 19 | 6.3 | 63.1 |
| \$3.1-\$4.0 | 19 | 6.3 | 69.4 |
| \$4.1-\$5.0 | 24 | 8.0 | 77.4 |
| \$5.1-\$7.0 | 17 | 5.6 | 83.1 |
| \$7.1-\$10.0 | 23 | 7.6 | 90.7 |
| \$10.1-\$20.0 | 22 | 7.3 | 98.0 |
| More than \$20.0 | 6 | 2.0 |  |
| Total | 301 | 100.0 | 100.0 |

(1) Based on information provided by approximately one-third of those in employment, self-employment or farming.

Table 4.16: Earnings range for those in employment, self-employment and in farming (1)

|  | Type of work |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Government (including police, military, teacher) | UN | NGO (paid or voluntary) | Employment in private sector | Self employment (including partnership) | Subsistence farming, fishing or other | Total |
| \$0-\$0.5 | 0 | 0 | 0 | 3 | 5 | 71 | 79 |
| \$0.6-\$1.0 | 0 | 0 | 0 | 0 | 2 | 49 | 51 |
| \$1.1-\$2.0 | 0 | 0 | 1 | 2 | 4 | 34 | 41 |
| \$2.1-\$3.0 | 0 | 0 | 1 | 2 | 9 | 7 | 19 |
| \$3.1-\$4.0 | 3 | 0 | 1 | 2 | 6 | 7 | 19 |
| \$4.1-\$5.0 | 2 | 0 | 7 | 7 | 4 | 4 | 24 |
| \$5.1-\$7.0 | 5 | 2 | 1 | 1 | 3 | 5 | 17 |
| \$7.1-\$10.0 | 3 | 4 | 3 | 3 | 7 | 3 | 23 |
| \$10.1-\$20.0 | 2 | 5 | 0 | 1 | 12 | 2 | 22 |
| More than \$20.0 | 0 | 0 | 0 | 1 | 5 | 0 | 6 |
| Total reporting earnings | 15 | 11 | 14 | 22 | 57 | 182 | 301 |
| Total in sample | 15 | 12 | 17 | 33 | 91 | 740 | 908 |
| Reporting as \% of sample | 100.0 | 91.7 | 82.4 | 66.7 | 62.6 | 24.6 | 33.1 |

### 4.6 Acceptable wage rate for manual work

In this section, we present the responses to questions on availability for manual work. Table 4.17 shows that 18.3 per cent of those in the labour force in the sample would find $\$ 1.00$ per day acceptable. An additional 56.8 per cent would find $\$ 2.00$ acceptable implying a very high elasticity of supply between $\$ 1.00$ and $\$ 2.00$ (an increase of 100 per cent in the wage rate leading to a tripling of numbers willing to work). Over 75 per cent of those in the labour force in the survey sample are willing to undertake manual work for cash income at the wage rate of $\$ 2.00$. As noted earlier, those not willing to work for $\$ 2.00$ were asked to indicate a wage rate at which they would be willing to work. The table shows that further small numbers equivalent to about 6.2 per cent of the labour force in the survey sample would be willing to engage in manual work for higher wage rates. The additional numbers being small is not surprising since with their addition, the total per cent of the sample willing to undertake manual work for cash income is over 81 per cent of the labour force.

Table 4.18 provides a breakdown of those who would find up to $\$ 2.00$ per day acceptable by "Type of work" and reasons for not working. The table shows that a vast majority ( 75 per cent) of those available for work at up to $\$ 2.00$ are engaged in subsistence activity. A further 2.7 per cent are mainly women in the "subsistence and homemaker category". In addition some of the 2.5 per cent in the "homemaker" category are also members of subsistence production households. This
confirms the broad conclusion in section 2.2 that in rural areas EGPWPs will principally offer cash earning opportunities to supplement subsistence production ${ }^{52}$.

Table 4.17: Acceptable wage rates for manual work

|  | Number | Per <br> cent <br> of <br> (15+ <br> years | Per <br> cent of <br> force | Per cent of <br> available |
| :--- | ---: | ---: | ---: | ---: |
| \$1.00 per day acceptable | 188 | 16.2 | 18.3 | 22.5 |
| Not \$1.00 but \$2.00 per day acceptable | 582 | 50.3 | 56.8 |  |
| Up to \$2.00 acceptable | 770 | 66.6 | 75.1 | 92.3 |
| Total 15+ years population | 1157 |  |  |  |
| Total 15+ years labour force | 1025 |  |  |  |
| More than \$2.00 per day acceptable |  |  |  |  |
| $\$ 3.00$ | 19 | 1.6 | 1.9 |  |
| $\$ 3.50$ | 5 | 0.4 | 0.5 |  |
| $\$ 4.00$ | 6 | 0.5 | 0.6 |  |
| \$4.50 | 2 | 0.2 | 0.2 |  |
| \$5.00 | 25 | 2.2 | 2.4 |  |
| \$6.00 | 7 | 0.6 | 0.7 |  |
| Total \$3.00 and above | 64 | 5.5 | 6.2 |  |
| Total available for manual work | 834 |  |  |  |

As would be expected, a large proportion of those "looking for work and available to start work" would be willing to work for $\$ 2.00$ though evidently the RWRs for 12.3 per cent of this group is higher than $\$ 2.00$ per day. The "unemployed, not looking" are somewhat more reluctant to take up low wage employment. Tables 4.15 and 4.16 in section 4.5 show that the wage rates of those in government and UN employment are well above the equivalent of $\$ 2.00$ per day and presumably with greater job security and employment related benefits. Therefore it is entirely understandable that none of these groups would be available for employment at $\$ 2.00$ or less per day. The same observation applies to those employed by NGOs though two low paid NGO employees are willing to take up employment at $\$ 2.00$ per day. The picture is somewhat mixed with those employed in the private sector and self-employed which can again be explained by the distribution of earnings rates (see Table 4.16).

[^26]Table 4.18: \$2.00 per day acceptable for manual work by type of work and reasons for not working

| Type of work (last 7 days) |  | \$2.00 acceptable for manual work |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | No | Total |
| Government (including police, military, teacher) | Number | 0 | 15 | 15 |
|  | \% Yes or No | 0.0 | 100.0 | 100.0 |
|  | \% of total persons | 0.0 | 3.9 | 1.3 |
| UN | Number | 0 | 12 | 12 |
|  | \% Yes or No | 0.0 | 100.0 | 100.0 |
|  | \% of total persons | 0.0 | 3.1 | 1.0 |
| NGO (paid or voluntary) | Number | 2 | 14 | 16 |
|  | \% Yes or No | 12.5 | 87.5 | 100.0 |
|  | \% of total persons | 0.3 | 3.7 | 1.4 |
| Employment in private sector | Number | 11 | 22 | 33 |
|  | \% Yes or No | 33.3 | 66.7 | 100.0 |
|  | \% of total persons | 1.4 | 5.7 | 2.9 |
| Self employment (including partnership) | Number | 32 | 57 | 89 |
|  | \% Yes or No | 36.0 | 64.0 | 100.0 |
|  | \% of total persons | 4.2 | 14.9 | 7.7 |
| Subsistence farming, fishing or other | Number | 580 | 143 | 723 |
|  | \% Yes or No | 80.2 | 19.8 | 100.0 |
|  | \% of total persons | 75.5 | 37.3 | 62.8 |
| Looking for work and available to start work | Number | 57 | 8 | 65 |
|  | \% Yes or No | 87.7 | 12.3 | 100.0 |
|  | \% of total persons | 7.4 | 2.1 | 5.6 |
| Subsistence and homemaker | Number | 21 | 4 | 25 |
|  | \% Yes or No | 84.0 | 16.0 | 100.0 |
|  | \% of total persons | 2.7 | 1.0 | 2.2 |
| Homemaker | Number | 19 | 17 | 36 |
|  | \% Yes or No | 52.8 | 47.2 | 100.0 |
|  | \% of total persons | 2.5 | 4.4 | 3.1 |
| Too young or scholar | Number | 28 | 37 | 65 |
|  | \% Yes or No | 43.1 | 56.9 | 100.0 |
|  | \% of total persons | 3.6 | 9.7 | 5.6 |
| Too old or infirm | Number | 5 | 45 | 50 |
|  | \% Yes or No | 10.0 | 90.0 | 100.0 |
|  | \% of total persons | 0.7 | 11.7 | 4.3 |
| Unemployed, not looking | Number | 13 | 9 | 22 |
|  | \% Yes or No | 59.1 | 40.9 | 100.0 |
|  | \% of total persons | 1.7 | 2.3 | 1.9 |
| Total (a) | Number | 768 | 383 | 1151 |
|  | \% Yes or No | 66.7 | 33.3 | 100.0 |
|  | \% of total persons | 100.0 | 100.0 | 100.0 |

(a) Excluding missing data.

The evidence from Table 4.18 shows that EGPW employment will attract some persons engaged in low wage non-subsistence activities. However, as long as EGPW employment is not large in relation to the local labour supply and the wage rate is moderate, any adverse impact on other
economic activities is unlikely to be serious and possibly outweighed by the injection of additional income. EGPWPs also have the favourable effect of bringing discouraged workers into play in the labour market. For the large proportion of EGPW workers who are otherwise engaged in subsistence activities, any adverse impact of EGPW employment is unlikely to be significant as long as long as heavy labour inputs on LI and LB projects are avoided during the busy agricultural season.

The table also shows that proportions of those in the "too young or scholar" and "too old or infirm" category are willing to undertake manual work for $\$ 2.00$ per day. If young people choose to work on public works projects to earn cash as an alternative to pursuing education, this could be a cause for concern. Many older people continue to engage in subsistence production and as long as they are physically able, they could be accommodated on LI projects ${ }^{53}$.

As noted earlier, the survey did not collect information on household income or expenditure but data were collected on possible indicators of living standards such as size of farms and households, ownership of houses and selected assets and subjective indications of whether and how often adults and children go hungry. The data analysis included cross-tabulation of a number of these indicators and willingness to undertake manual work for $\$ 1.00$ or $\$ 2.00$ per day. Results of all the cross-tabulations are not presented here and there is scope for further analysis. Selected results of note are summarised here.

With so many households dependent on farming, arguably households with smaller farms may be poorer and may have greater need for off-farm employment. Cross-tabulations of farm size and availability for manual work indicate that there is a relationship between the size of household farms and willingness of members to take up employment. Over 20 per cent of persons in the 15+ age group in households with farms less than half a hectare in size indicated that they would find $\$ 1.00$ per day acceptable for manual work. The average per cent willing to work for $\$ 1.00$ in households with larger farms is less than 15 per cent ${ }^{34}$. There are statistically significant differences in response rates between households with small and large farms at the $\$ 2.00$ or less but the differences are less striking.

Similar cross-tabulations between household size and response to $\$ 1.00$ per day and $\$ 2.00$ per day wage rates showed that households of above average size (with between 7 and 10 members) had significantly higher response rates at $\$ 1.00$ per day though the response rate is lower than average for households with more than 10 members. When availabilities for manual work at $\$ 1.00$ and $\$ 2.00$ per day are combined, households with between 3 and 6 members have a higher than average response rate but larger households' response rates are lower. Given that the mean household size is 6.2 persons, there is no clearcut evidence that larger households have greater need for public works employment. It is possible that a clearer picture may emerge if willingness to work at $\$ 1.00$ or $\$ 2.00$ per day is related to farmland per person available to households.

Other cross-tabulations of interest are the relationship between whether and how often persons in households are hungry and willingness to undertake public works at $\$ 1.00$ and $\$ 2.00$ per day. The

[^27]cross-tabulation between willingness to work for $\$ 1.00$ per day and incidence of hunger shows that the response rate is just under 11 per cent for households who are "never" hungry. It is 15 per cent for households who have adults who are hungry "sometimes" and the rate is about 20 per cent for households who are "often" or "always" hungry. The picture is less clear-cut in the crosstabulation between willingness to undertake manual work at up to $\$ 2.00$ and incidence of hunger.

Discussion of the above cross-tabulations suggests that the poorest sections of the population are better targeted by a wage rate of $\$ 1.00$ per day than $\$ 2.00$ per day ${ }^{55}$. Table 4.17 shows that 18 per cent of the labour force would be willing to work for $\$ 1.00$. However, this evidence is not sufficient to conclude that $\$ 1.00$ per day is the preferable wage rate. At $\$ 1.00$ per day, in some district samples the response rates are zero or very low (see Table 4.22). In section 3.4 the issue of geographical variations in wage rates because of differences in local economic characteristics was considered and it was recommended that because of the complexity of setting and reviewing differential wage rates and the issue of equity across the country, on balance there should be a uniform wage rate for LI works. If this recommendation is accepted, $\$ 1.00$ per day would be too low in some districts and localities.

Arguably, at $\$ 1.00$ per day the welfare benefit provided is low and the living standards of the households of those willing to work for $\$ 2.00$ per day are not significantly higher than those who are willing to work for $\$ 1.00$. Therefore, $\$ 2.00$ per day wage rate is preferable as a single uniform wage rate for labour intensive works. The implications of a $\$ 2.00$ per day wage rate for labour supply are considered in more detail in section 5 .

Table 4.19 shows a breakdown by age group of those willing to work for $\$ 2.00$ compared with the percentage breakdown of the labour force by age group. The " $\%$ response to $\$ 2.00$ wage rate" is 66.5 per cent for all age groups, i.e. 66.5 per cent of persons in the $15+$ age group indicated willingness to work for $\$ 2.00$. The table shows two sets of percentages to compare the responses between age groups, the percentage "Yes" and "No" responses and respondents broken down by "\% of all age groups". The age groups with higher than average positive " $\%$ response to $\$ 2.00$ wage rate" includes the 15 to 19 years age group but not the 20 to 24 years age group. The proportion of those in the 15 to 19 age group willing to work for $\$ 2.00$ is also higher than the proportion of population in the labour force in this age group ${ }^{56}$.

The 25 to 55 years age groups also have higher than average positive response rates but those for the 55+ age group are much lower. The latter reflects lower participation rates for those in the older age groups and possibly lower willingness and ability on the part of a proportion of older people to undertake physical work. Based on this evidence, the young ( 15 to 19 and 20 to 24 age groups) are well represented among those finding $\$ 2.00$ or less acceptable for manual work. However, they are likely to be less than one-fifth of the public works labour force ${ }^{57}$. Over 60 per cent of public works participants are likely to be in the 25 to 55 years age group. These age

[^28]groups have the highest labour force participation rates and many are likely to be older members of households seeking to supplement their subsistence based livelihoods with cash income. The labour supply response at $\$ 1.00$ per day is also not particularly pro-young.

Table 4.19: \$2.00 acceptable for manual work by age group

| 15+ age groups |  | \$2.00 acceptable for manual work |  | Total | Labour force age distribution |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | No |  |  |
| 15 to 19 | Number | 144 | 53 | 197 |  |
| \% response to $\$ 2.00$ wage rate within <br> age group |  | 73.1 | 26.9 | 100.0 |  |
|  | \% of all age groups | 17.1 | 16.9 | 17.5 | 13.8 |
| 20 to 24 | Number | 88 | 50 | 138 |  |
|  | $\%$ response to $\$ 2.00$ wage rate within age group | 63.8 | 36.2 | 100.0 |  |
|  | \% of all age groups | 12.1 | 11.5 | 12.0 | 12.1 |
| 25 to 29 | Number | 91 | 29 | 120 |  |
|  | $\%$ response to $\$ 2.00$ wage rate within age group | 75.8 | 24.2 | 100.0 |  |
|  | \% of all age groups | 11.7 | 6.7 | 10.8 | 11.7 |
| 30 to 39 | Number | 168 | 79 | 247 |  |
|  | $\%$ response to $\$ 2.00$ wage rate within age group | 68.0 | 32.0 | 100.0 |  |
|  | \% of all age groups | 21.6 | 20.1 | 21.0 | 23.4 |
| 40 to 55 | Number | 208 | 89 | 297 |  |
|  | \% response to $\$ 2.00$ wage rate within age group | 70.0 | 30.0 | 100.0 |  |
|  | \% of all age groups | 27.6 | 20.4 | 25.3 | 27.8 |
| 56 to 65 | Number | 59 | 43 | 102 |  |
|  | $\%$ response to $\$ 2.00$ wage rate within age group | 57.8 | 42.2 | 100.0 |  |
|  | \% of all age groups | 7.6 | 12.1 | 8.5 | 8.4 |
| 65 plus | Number | 18 | 40 | 58 |  |
|  | $\%$ response to $\$ 2.00$ wage rate within age group | 31.0 | 69.0 | 100.0 |  |
|  | \% of all age groups | 2.4 | 12.1 | 4.9 | 2.8 |
| Total | Number | 771 | 388 | 1159 |  |
|  | \% response to $\$ 2.00$ wage rate all age groups | 66.5 | 33.5 | 100.0 |  |
|  | Total \%, all age groups | 100.0 | 100.0 | 100.0 |  |

Table 4.20 shows the breakdown by sex of those willing to work at up to $\$ 2.00$ per day. On this evidence, men and women are almost equally willing to participate in public works. However, ensuring that women's actual participation is sufficiently high may require dealing with any barriers against their participation.

Table 4.20: $\$ 2.00$ by sex breakdown

|  | \$2.00 acceptable for <br> manual work |  |  |
| :--- | ---: | ---: | ---: |
|  | Yes | No | Total <br> (a) |
| Number | 394 | 201 | 595 |
| \% yes / no split (male) | 66.2 | 33.8 | 100.0 |
| \% male | 53.0 | 50.9 | 51.5 |
| Number | 376 | 187 | 563 |
| \% yes / no split (female) | 66.8 | 33.2 | 100.0 |
| \% female | 47.0 | 49.1 | 48.7 |
| Number | 770 | 388 | 1158 |
| \% yes / no split (male and female) | 66.5 | 33.5 | 100.0 |
| Total \% | 100.0 | 100.0 |  |

(a) Excluding missing values.

One qualification to the above results on availability for EGPWP is that the responses include a substantial number of multiple positive responses from the same households. The 770 persons willing to work come from 325 sample households i.e. on average just under 2.4 persons per household. It is possible that not all members of households with multiple positive responses would be available simultaneously because of other household commitments implying a lower labour availability response. However, given such a high response overall, in most localities labour supply is unlikely to be a problem and it may be necessary to ration public works employment to one per household. Under such rationing, issues requiring attention are the balance between men and women and the proportion of young among those gaining access to public works employment.

### 4.7 Differences in labour supply responses between districts

So far, our analysis is based on the whole sample. As noted earlier, given small sample sizes at the district level, results disaggregated to the district level may not be representative of the district situation. Nevertheless, it is necessary to look at differences in labour supply response rates between the samples in districts to obtain an indication of the possible range of variations in response rates and their implications for wage rate policy and local level planning of EGPW projects.

Table 4.21 shows substantial variations in the declared availability at $\$ 2.00$ per day for public works employment between district samples, ranging from 99 and 97 per cent of the samples in Ermera and Oecusi respectively to 22 and 45 per cent of the samples in Covalima and Lautem. The high and low response rates are in rural areas and therefore they do not reflect rural - urban differences. They may reflect differences between districts or given the small samples from specific localities, local characteristics such as farm and non-farm activities and temporary or long-term presence of other employers such as NGOs and private contractors. In the urban Dili sample, the response was 62 per cent positive for $\$ 2.00$ per day ${ }^{58}$.

[^29]Table 4.21: \$2.00 per day wage rate for manual work acceptable by district

|  |  | \$2.00 per day acceptable <br> for manual work |  |  |
| :--- | :--- | ---: | ---: | ---: |
| District |  | Yes | No | Total |
| Baucau | Number | 109 | 15 | 124 |
|  | \% within District | 87.9 | 12.1 |  |
| Bobonaro | Number | 97 | 84 | 181 |
|  | \% within District | 53.6 | 46.4 |  |
| Covalima | Number | 30 | 105 | 135 |
|  | \% within District | 22.2 | 77.8 |  |
| Dili | Number | 125 | 77 | 202 |
|  | \% within District | 61.9 | 38.1 |  |
| Ermera | Number | 136 | 1 | 137 |
|  | \% within District | 99.3 | 0.7 |  |
| Lautem | Number | 63 | 78 | 141 |
|  | \% within District | 44.7 | 55.3 |  |
| Manufahi | Number | 69 | 24 | 93 |
|  | \% within District | 74.2 | 25.8 |  |
| Oecusi | Number | 142 | 4 | 146 |
|  | \% within District | 97.3 | 2.7 |  |
| Total | Number | 771 | 388 | 1159 |
|  | \% within District | 66.5 | 33.5 |  |

Whether the differences in response rates reflect differing characteristics of districts or differences between localities, the evidence suggests that there will be substantial variations in labour availability and types of participants between parts of the country. If the principle of offering a single uniform wage rate for LI works proposed in section 3.4 is accepted, one implication is that the level of EGPW activities at the district and sub-district levels should be adjusted according to the local conditions with more activities where the population density is higher and there is evidence of greater under- and unemployment. An Excel based model has been supplied to estimate local labour availability from data on population density and labour supply response (see section 5).

Table 4.22 shows the response rates to employment at $\$ 1.00$ per day. Again there are substantial variations between district samples as would be expected. For the samples in Baucau, Covalima and Ermera, the response is well below 10 per cent ( 0 per cent in Baucau). Therefore, while $\$ 1.00$ per day may be an effective wage rate for targeting the poorest in some localities, its acceptability as a uniform EGPW wage rate for TL is questionable as noted above.

Table 4.22: \$1.00 per day wage rate for manual work acceptable by district

|  |  | \$1.00 per day acceptable <br> for manual work |  |  |
| :--- | :--- | ---: | ---: | ---: |
| District |  | Yes | No | Total |
| Baucau | Number | 0 | 124 | 124 |
|  | \% within District | 0.0 | 100.0 | 100.0 |
| Bobonaro | Number | 83 | 98 | 181 |
|  | \% within District | 45.9 | 54.1 | 100.0 |
| Covalima | Number | 9 | 126 | 135 |
|  | \% within District | 6.7 | 93.3 | 100.0 |
| Dili | Number | 27 | 175 | 202 |
|  | \% within District | 13.4 | 86.6 | 100.0 |
| Ermera | Number | 8 | 129 | 137 |
|  | \% within District | 5.8 | 94.2 | 100.0 |
| Lautem | Number | 53 | 88 | 141 |
|  | \% within District | 37.6 | 62.4 | 100.0 |
| Manufahi | Number | 17 | 76 | 93 |
|  | \% within District | 18.3 | 81.7 | 100.0 |
| Oecusi | Number | 33 | 113 | 146 |
|  | \% within District | 22.6 | 77.4 | 100.0 |
| Total | Number | $\mathbf{2 3 0}$ | $\mathbf{9 2 9}$ | $\mathbf{1 1 5 9}$ |
|  | \% within District | $\mathbf{1 9 . 8}$ | $\mathbf{8 0 . 2}$ | $\mathbf{1 0 0 . 0}$ |

### 4.8 SEFOPE / ILO Labour Survey: Economic activity and availability for employment Dili sample

As would be expected, Table 4.23 shows a much higher proportion of households relying on wages and salaries as the main source of income in Dili than in the whole sample ( 9.9 per cent of households - see Table 4.8) ${ }^{59}$. The second most important income source in Dili is "sale of farm products and services". Table 4.24 shows the age distribution of persons 15 years or older in the Dili sample. Comparison with Table 4.13 shows that the Dili sample population is much younger than the overall sample. About 46 per cent in the Dili sample are in the 15 to 19 age group compared with just under 30 per cent for the whole sample.

The breakdown of those 15 years or older according to type of economic activity and reasons for not working (Table 4.25) shows much higher levels of unemployment ( 25 per cent adding the "unemployed and looking for work" and "unemployed not looking" categories). Compatible with the nearly 30 per cent of households relying on sales of farm products as the main means of livelihood about 32 per cent of adults are engaged in farming and other subsistence production activities.

[^30]Table 4.23: Main sources of household income - Dili

| Source of income | Number | Per cent |
| :--- | ---: | ---: |
| Salaries / wages | 20 | $\mathbf{4 0 . 8}$ |
| Remittances | 2 | 4.1 |
| Pensions or grants | 5 | 10.2 |
| Sale of farm products and services | 14 | 28.6 |
| Other non-farm income | 7 | 14.3 |
| No income | 1 | $\mathbf{2 . 0}$ |
| Total | 49 | 100.0 |

Table 4.24: Age distribution of SEFOPE / ILO household members 15 years or older - Dili

| Age groups | Number | Per cent | Cumulative <br> per cent |
| :--- | ---: | ---: | ---: |
| 15 to 19 | 51 | 23.7 | 23.7 |
| 20 to 24 | 47 | 21.9 | 45.6 |
| 25 to 29 | 23 | 10.7 | 56.3 |
| 30 to 39 | 25 | 11.6 | 67.9 |
| 40 to 55 | 45 | 20.9 | 88.8 |
| 56 to 65 | 9 | 4.2 | 93.0 |
| 65 plus | 15 | 7.0 | 100.0 |
| Total | 215 | 100.0 |  |

Table 4.25: Type of economic activities or reasons for not working SEFOPE / ILO - Dili

| Type of work (last 7 days) | Number | Per cent |
| :--- | ---: | ---: |
| Government (including police, military, teacher) | $\mathbf{2}$ | $\mathbf{0 . 9}$ |
| NGO (paid or voluntary) | 10 | 4.7 |
| Employment in private sector | 14 | 6.5 |
| Self employment (including partnership) | 17 | 7.9 |
| Subsistence farming, fishing or other | 68 | $\mathbf{3 1 . 6}$ |
| Looking for work and available to start work | 36 | 16.7 |
| Subsistence and homemaker | 3 | 1.4 |
| Homemaker | 5 | 2.3 |
| Too young or scholar | 20 | 9.3 |
| Too old or infirm | 12 | 5.6 |
| Unemployed, not looking | 18 | $\mathbf{8 . 4}$ |
| Missing | 10 | 4.7 |
| Total | 215 | 100.0 |

Table 4.26 shows that the positive response rates at $\$ 1.00$ and $\$ 2.00$ per day are a little below the average for the whole sample but about 62 per cent of those in the labour force age group and over 74 per cent of those in the labour force are available for employment at $\$ 2.00$ per day. According to Table 4.27, 36 per cent of those available are unemployed ("unemployed looking for work" and "unemployed not looking for work") and 35 per cent are engaged in subsistence production. Diversion from employed and self-employed at about 9.6 per cent is low. They are likely to be low paid workers or in casual employment. About 12.8 per cent are in the "Too young or scholar category". EGPWPs should clearly take measures to ensure that the young are not diverted from education.

Table 4.26: Acceptable wage rates for manual work - Dili

|  | Number | Per cent of <br> $15+$ years | Per cent of <br> labour force |
| :--- | ---: | ---: | ---: |
| $\$ 1.00$ | 27 | 13.4 | 16.1 |
| Not \$1.00 but \$2.00 acceptable | 98 | 48.5 | 58.3 |
| Up to \$2.00 | 125 | 61.9 | 74.4 |
| Total 15+ years | 202 |  |  |
| Total 15+ years (labour force) | 168 |  |  |
| More than \$2.00 acceptable |  |  |  |
| $\$ 3.00$ | 2 | 0.9 | 1.2 |
| $\$ 5.00$ | 1 | 0.5 | 0.6 |
| Total \$3.00 and above | 3 | 1.4 | 1.8 |

Table 4.28 shows a clear difference between the Dili sample and the rest in the proportion of young available for work with just over 55 per cent of all available being in the 15 to 24 years age range. For the whole sample, the proportion is 29 per cent (see Table 4.19). The difference partly reflects the higher proportion of young persons in the Dili sample. The positive response rate of the young in Dili is also higher, 89 per cent compared with the average response rate of 62 per cent for Dili. This evidence underlines the problems of youth gravitating to Dili and other urban centres and the high unemployment among them. Table 4.29 suggests higher potential participation by women in Dili than in the country as a whole, 53 per cent women participants in Dili compared with 47 per cent for the whole sample (Table 4.20).

In conclusion, the evidence from the Dili sample supports the assessment in section 2 that an important contribution of EGPWPs in urban areas is to provide jobs for the unemployed in contrast with the rural areas where the focus is on supplementing the incomes of households reliant on subsistence production. Nevertheless, about one-third of those available for public works employment in Dili are engaged in subsistence production. At first sight this appears to be surprising for urban areas. However, it conforms with our own survey evidence on means of livelihoods ${ }^{60}$. The diversion from private sector employment and self-employment is higher than for the whole sample ( 9.6 per cent compared with 4.6 per cent for the whole sample) but

[^31]nevertheless it is low, though there is some cause for concern regarding diversion from education which would require attention.

In section 5, we draw together the conclusions and recommendations on wage rate policy and wage rates from this and the previous sections and make a broad assessment of labour availability, the need for EGPWP employment and implications for programme costs.

Table 4.27: \$2.00 acceptable for manual work by Type of work - Dili

| Type of work (last 7 days) |  | \$2.00 acceptable for manual work |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Yes | No | Total |
| Government (including police, military, teacher) | Number | 0 | 2 | 2 |
|  | \% within Type of work | 0.0 | 100.0 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 0.0 | 2.6 | 1.0 |
| NGO (paid or voluntary) | Number | 0 | 9 | 9 |
|  | \% within Type of work | 0.0 | 100.0 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 0.0 | 11.7 | 4.5 |
| Employment in private sector | Number | 3 | 11 | 14 |
|  | \% within Type of work | 21.4 | 78.6 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 2.4 | 14.3 | 6.9 |
| Self employment (including partnership) | Number | 9 | 8 | 17 |
|  | \% within Type of work | 52.9 | 47.1 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 7.2 | 10.4 | 8.4 |
| Subsistence farming, fishing or other | Number | 44 | 23 | 67 |
|  | \% within Type of work | 65.7 | 34.3 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 35.2 | 29.9 | 33.2 |
| Looking for work and available to start work | Number | 35 | 1 | 36 |
|  | \% within Type of work | 97.2 | 2.8 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 28.0 | 1.3 | 17.8 |
| Subsistence and homemaker | Number | 3 | 0 | 3 |
|  | \% within Type of work | 100.0 | 0.0 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 2.4 | 0.0 | 1.5 |
| Homemaker | Number | 3 | 2 | 5 |
|  | \% within Type of work | 60.0 | 40.0 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 2.4 | 2.6 | 2.5 |
| Too young or scholar | Number | 16 | 3 | 19 |
|  | \% within Type of work | 84.2 | 15.8 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 12.8 | 3.9 | 9.4 |
| Too old or infirm | Number | 0 | 12 | 12 |
|  | \% within Type of work | 0.0 | 100.0 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 0.0 | 15.6 | 5.9 |
| Unemployed, not looking | Number | 10 | 6 | 16 |
|  | \% within Type of work | 62.5 | 37.5 | 100.0 |
|  | \% within ManualWorkDlr1orDlr2 | 8.0 | 7.8 | 7.9 |

Table 4.28: \$2.00 acceptable for manual work by age group - Dili


Table 4.29: $\$ 2.00$ by sex breakdown

|  | \$2.00 acceptable for <br> manual work |  |  |
| :--- | ---: | ---: | ---: |
|  | Yes | No | Total <br> (a) |
| Number | 59 | 45 | 104 |
| \% yes / no split (male) | 56.7 | 43.3 | 100.0 |
| \% male | 47.2 | 58.4 | 51.5 |
| Number | 66 | 32 | 98 |
| \% yes / no split (female) | 67.3 | 32.7 | 100.0 |
| \% female | 52.8 | 41.6 | 48.5 |
| Number | 125 | 77 | 202 |
| \% yes / no split (male and <br> female) | 61.9 | 38.1 | 100.0 |
| Total \% | 100.0 | 100.0 | 100.0 |

(a) Excluding missing values.

## 5. WAGE RATES, LABOUR AVAILABILITY ESTIMATES AND PROGRAMME COSTS: CONCLUSIONS AND RECOMMENDATIONS

### 5.1 Recommendations on the wage rate and related aspects

This section starts by bringing together recommendations on wage rates and related employment policy issues based on the analysis and data in the previous sections. The underlying principles for setting wage rates for EGPWPs are that: (a) they should be comparable with wage rates in similar activities, and (b) they should not lead to diverting workers from other productive activities to their detriment (either because of increase in wage costs for private sector employers or reduction of production by farmers).

If wage rates are set according to the principles outlined above, it would be necessary to consider different wage rates for different parts of the country and between rural and urban areas because of differing labour market conditions. On balance, taking account of the complexity of setting and managing differential wage rates and the perception of inequity between districts if different wage rates are offered, a single uniform wage rate for EGPWPs undertaken by SEFOPE and ideally for all such GoTL works is recommended. An important implication of a uniform LI wage rate is that the wage rate cannot be used as a specific targeting mechanism for matching local requirement for EGPWP employment and programme activity. The latter would have to be adjusted to match labour availability at the local level or other means of rationing, such as restricting EGPWP employment to one member per household.

In the previous paragraph, we refer specifically to the LI wage rate. A distinction has been made between the wage rate for LI and LB employment since the objectives of the two approaches differ. The main objective of the former is to provide employment for the poor while the latter aims to deploy a combination of labour and light equipment effectively to create or preserve infrastructure assets. For LB employment, the wage rate should be comparable with similar activities and should provide sufficient incentive for workers to work under supervision and achieve the required productivities. Since it is necessary to make a clear distinction between LI and LB activities and components, it is recommended that (a) the LB approach should be implemented through contractors who could set their own wage rate but with the condition that the wage rate could not be below the uniform LI wage rate, and (b) there should be a clear distinction between the types of works undertaken by LI and LB methods. These distinctions are elaborated in section 3.4 and discussed further in section 5.3.

Figure 5.1 brings together evidence on the labour supply response from TLSLS 2007, YES 2007 and the SEFOPE / ILO survey. The figure shows that if the evidence on earnings in selfemployment is an appropriate comparator for unskilled urban employment for the young, a $\$ 2.00$ wage rate would be appropriate for about 40 per cent of those available for such work. The evidence from TLSLS 2007 and SEFOPE / ILO survey indicates that $\$ 2.00$ per day would be acceptable for much higher proportion of those available for such work.

Figure 5.1: Comparison of labour supply responses - TLSLS 2007, SEFOPE / ILO Survey, YES 2007


Based on this evidence and taking into account the evidence on variations in labour supply response between localities, a uniform wage rate of $\$ 2.00$ per day is recommended. LB wage rates set by contractors would be $\$ 2.00$ per day or higher. It is acknowledged that $\$ 2.00$ per day is on the high side if the objective is to target the poorest at the national level. However, given the evidence on variations in labour supply response rates between localities, a single uniform LI wage rate of $\$ 2.00$ appears to be reasonable at present. It is further recommended that to avoid competition between projects and the adverse effects of the resulting wage inflation, GoTL should consider setting a uniform $\$ 2.00$ per day wage rate for LI works undertaken by the public sector with the objective of generating employment and alleviating poverty.

The recommended uniform LI wage rate is based on the prevailing situation at the time of the study. The wage rate should be kept under review and adjusted periodically if necessary because of changes in labour market conditions and cost of living increases. There should be no difference between the wage paid to men and women undertaking similar work. A uniform wage rate for LI work would clearly avoid such differentiation. The principle of non-discrimination between men and women (equal pay for equal work) should also apply to LB employment. Measures may be needed to remove obstacles to women participating in EGPWPs.

A distinction should also be made between the terms and conditions for casual public works employment and formal public sector employment. For the former, basic health and safety and
measures such as provision of drinking water and the treatment of minor injuries should be put in place and compensation for work-related injury should be considered but other employment related benefits such as maternity leave, severance pay, paid holiday and sick leave should be excluded.

### 5.2 Labour availability estimates and programme costs

This section starts by providing some broad estimates of labour availability at the wage rate of $\$ 2.00$ per day. As section 4.7 shows, while the labour supply response at the whole sample level at $\$ 2.00$ is high (about 67 per cent of the labour force), there are large variations in local labour supply responses which may be because of local circumstances or district characteristics. A simple Excel spreadsheet has been developed to make rough estimates of local labour availability based on local population density and labour supply response rates (Table 5.1).

The table shows an illustrative estimate of labour availability under the following assumptions:
(a) population density of 70 persons per $\mathrm{km}^{2}$ (TL average);
(b) average labour supply response rate of 75 per cent of the labour force (based on SEFOPE / ILO survey evidence);
(c) average assumptions on household size and number of persons in the labour force per household (based on SEFOPE / ILO survey evidence), and
(d) a project would attract persons from within 5 kms .

Under these assumptions, 2000 persons will be available for EGPWP work for rehabilitation of a 1 km stretch of road. It is assumed that in rural TL this availability is in the agricultural slack seasons and heavy labour requirement on EGPWP projects will be scheduled for these periods.

Assuming that a road rehabilitation project requires up to 200 persons for work on a 1 km road length ${ }^{61}$, labour availability is ten times the labour requirement if the population density in the locality is the average of the TL population density and the labour supply response rate is 75 per cent of the labour force. In practice, there will be large variations in the population density and, as the evidence presented in section 4.7 shows, large variations in the labour supply response rates between districts and localities.

Table 5.2 shows labour availability estimates at different population densities and labour supply response rates. The table shows estimates of the number of persons likely to be available for employment for a range of population densities and labour supply response rates. Assuming a labour requirement of 200 persons for a 1 km stretch, the table shows the range of population densities and response rates at which labour supply is likely to be insufficient (indicated by numbers in red). It shows that at a population density as low as 10 persons per $\mathrm{km}^{2}$, there would be adequate labour supply if the response rate is 60 per cent or above ${ }^{62}$. Even at a response rate as

[^32]low as 10 per cent, labour availability would be adequate if the local population density is 60 persons or more ${ }^{63}$.

Table 5.1: Labour availability estimate - average population density and response rate


Table 5.3 shows labour availability estimates related to population density and labour supply response if EGPWP employment is rationed to one member per household. As would be expected, the range of population densities and response rates at which there may be labour supply problems is wider under such rationing. For example, if the local population density is 10 persons per km2, local labour availability will be inadequate even of the labour supply response is 90 per cent (SEFOPE / ILO survey indicates that at least one member of 80 per cent of households would be willing to participate if the wage rate is $\$ 2.00$ per day). If the response rate

[^33]is positive from only 10 per sent of households, labour supply would be adequate only in localities with double the average TL population density. At 20 per cent positive response rate, labour supply would not be adequate in localities in which the population density is below the TL average. The Excel table used for making the labour availability estimates in Tables 5.2 and 5.3 has been provided to the SEFOPE / ILO project team for making further labour availability estimates with altered parameters such as different areas of influence, population densities and response rates.

The overall conclusion from the evidence in Tables 5.1, 5.2 and 5.3 is that at $\$ 2.00$ per day wage rate, labour availability is unlikely to be a problem in most localities as long as access to EGPWPs is open and availability of employment is widely known. Where labour availability is limited, arguably the scale of employment generating LI works should be reduced. If LB is adopted as the approach for rehabilitation and maintenance of some types of infrastructure assets as discussed in section 3.4 and elaborated in section 5.3 below, it may have to be implemented in some areas with low labour availability. In such cases, there are options such as workers temporarily moving near the site and setting up temporary camps near them if necessary.

The estimates of labour availability for EGPWP in Tables 5.2 and 5.3 can also be interpreted as the need for creating employment opportunities to supplement livelihoods. Based on this interpretation, the tables show the scale of public works employment required in relation to local population densities and likely responses. The labour availability estimates in the tables are for an area of approximately $90 \mathrm{~km}^{2}$, i.e. within 5 kms of a typical project requiring up to 200 workers. The Excel table provided to the SEFOPE / ILO project team can be used for making approximate estimates of the scale of employment generation required at the district, sub-district and suku levels based on the SEFOPE / ILO survey labour supply response rates. For more reliable estimates, local labour availability surveys may have to be undertaken.

Another question of some interest is the scale of the national programme required if EGPWPs are to be used as a safety net, i.e. to provide short-term employment to all those who need it. Table 5.4 shows that the total programme costs for providing 28 days of employment on the assumption that the ILO / SEFOPE response rate reflects the proportion of labour force who would take up EGPWP employment is just under $\$ 27$ million per year. The table also shows that if EGPWP employment is limited to one person per household, the programme cost would be just over $\$ 11$ million per year ${ }^{64}$.

[^34]Table 5.2: Labour availability related to labour supply response and population density: No limit on persons per household (1)

|  | Population density (persons per km2) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 |
| ¢ | 10 | 40 | 80 | 119 | 159 | 199 | 239 | 278 | 318 | 358 | 398 | 437 |
| - | 20 | 80 | 159 | 239 | 318 | 398 | 477 | 557 | 636 | 716 | 795 | 875 |
| OU O O | 30 | 119 | 239 | 358 | 477 | 597 | 716 | 835 | 954 | 1074 | 1193 | 1312 |
| © | 40 | 159 | 318 | 477 | 636 | 795 | 954 | 1114 | 1273 | 1312 | 1591 | 1750 |
| 㥑 | 50 | 199 | 398 | 597 | 795 | 994 | 1193 | 1392 | 1591 | 1790 | 1988 | 2187 |
| \% | 60 | 239 | 477 | 716 | 954 | 1193 | 1432 | 1670 | 1909 | 2148 | 2386 | 2625 |
| 年 | 70 | 278 | 557 | 835 | 1114 | 1392 | 1670 | 1949 | 2227 | 2505 | 2784 | 3062 |
| ¢ | 80 | 318 | 636 | 954 | 1273 | 1591 | 1909 | 2227 | 2545 | 2863 | 3181 | 3500 |

(1) Assuming a project requirement of 200, numbers in red indicate insufficient local labour supply. Numbers in blue indicate labour supply exceeding labour requirement.

Table 5.3: Labour availability related to labour supply response and population density: One person per household

|  | Population density (persons per km2) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 | 110 | 120 | 130 |
| 4 | 10 | 16 | 32 | 47 | 63 | 79 | 95 | 111 | 127 | 142 | 158 | 174 | 190 | 206 |
| ○ํ | 20 | 32 | 63 | 95 | 127 | 158 | 190 | 221 | 253 | 285 | 316 | 348 | 380 | 411 |
| ¢ 0 | 30 | 47 | 95 | 142 | 190 | 237 | 285 | 332 | 380 | 427 | 474 | 522 | 569 | 617 |
| T | 40 | 63 | 127 | 190 | 253 | 316 | 380 | 443 | 506 | 569 | 633 | 696 | 759 | 822 |
| ¢ © | 50 | 79 | 158 | 237 | 316 | 395 | 474 | 554 | 633 | 712 | 791 | 870 |  |  |
| $\bigcirc$ | 60 | 95 | 190 | 285 | 380 | 474 | 569 | 664 | 759 | 854 | 949 | 1044 |  |  |
| ¢ | 70 | 111 | 253 | 380 | 506 | 633 | 759 | 886 | 1012 | 1139 | 1265 | 1392 |  |  |
| $\underline{\square}$ | 80 | 127 | 253 | 380 | 506 | 633 | 759 | 886 | 1012 | 1139 | 1265 | 1392 |  |  |
|  | 90 | 142 | 285 | 427 | 569 | 712 | 854 | 996 | 1139 | 1281 | 1423 | 1566 |  |  |

(1) Assuming a project requirement of 200, numbers in red indicate insufficient local labour supply. Numbers in blue indicate labour supply exceeding labour requirement.

Table 5.4: Scale of programme required: 28 days of employment per person

|  |  | Units | Additional information |
| :--- | ---: | :--- | :--- |
| Labour availability |  |  |  |
|  | $\mathbf{5 . 6}$ | Persons |  |
| Average household size |  |  |  |
|  |  |  |  |
| Availability without one per household constraint | 1000000 | persons |  |
| Total population | 44.90 | per cent | ILO / SEFOPE 2008 <br> survey |
| Labour force (15+ years) as a proportion of population | 449000 |  |  |
| Total labour force | 75.00 | per cent | At \$2.00 per day (from <br> ILO / SEFOPE 2008 <br> survey) |
| Proportion available for EGPWP | 336750 |  |  |
| Total available for EGPWP (scale of programme <br> required) | 28 | days |  |
| Number of days of employment per year | 70 | per cent |  |
| Labour cost as proportion of programme cost | 26.94 | Million \$s |  |
| Estimated cost |  |  |  |
|  |  |  |  |
| Availability with one per household constraint | 778571 | households |  |
| Total number of households | 79.00 | per cent | At \$2.00 per day (from <br> ILO / SEFOPE 2008 <br> survey) |
| Proportion of household with at least one member <br> available for EGPWP | 28 | days |  |
| Total available for EGPWP (scale of programme <br> required) | 141071 | per cent |  |
| Number of day of employment per year | 11.29 | Million \$s |  |
| Labour cost as proportion of programme cost |  |  |  |
| Estimated cost |  |  |  |
|  |  |  |  |

### 5.3 Household level welfare impact of EGPWP employment

Another issue to be considered is the welfare impact of EGPWP employment at the household level. Table 5.5 shows earnings from EGPWP employment under three assumptions about the amount of employment provided. The alternatives are three months of employment which could be the typical length of time for which a person could be employed on a labour-based project with employment being limited to one person per household. The other two alternatives are (a) employment on a labour intensive project for 28 days (a) with employment being rationed to one person per household, and (b) employment not limited to one person per household. In the last case, it is assumed that on average two persons per household may participate ${ }^{65}$.

[^35]Table 5.5: Household level benefits EGPWP employment under alternative assumptions

|  | EGPWP employment |  |  |
| :---: | :---: | :---: | :---: |
|  | 3 months for one member of household | Limited to 28 days and one person per household | Limited to 28 days, no limit on number of household members |
| No of days of employment (1) | 66 | 28 | 67 |
| Earnings from EGPWP employment (2) | 132 | 56 | 134 |
| World Bank (2001) poverty line |  |  |  |
| Annual household expenditure (3) | 1124 | 1124 | 1124 |
| EGPWP earnings as \% of household expenditure | 11.7 | 5.0 | 10.0 |
| WFP 2006-Food insecure |  |  |  |
| Average annual household expenditure (4) | 309 | 309 | 309 |
| EGPWP earnings as \% of household expenditure | 42.7 | 18.1 | 36.2 |
| WFP 2006 - Highly vulnerable |  |  |  |
| Average annual household expenditure (5) | 511 | 511 | 511 |
| EGPWP earnings as \% of household expenditure | 25.8 | 11.0 | 21.9 |
| WFP 2006 - Moderately vulnerable |  |  |  |
| Average annual household expenditure (6) | 719 | 719 | 719 |
| EGPWP earnings as \% of household expenditure | 18.4 | 7.8 | 15.6 |

(1) 22 working days per month assumed. On average, 2.4 persons available per household.
(2) At $\$ 2.00$ per day wage rate.
(3) Assuming a household size of 5.6 persons (TLSLS 2007 and SEFOPE / ILO survey) and poverty line of $\$ 0.55$ per person per day.
(4) Assuming a household size of 5.6 persons and monthly expenditure of $\$ 4.6$ per person per month (WFP, 2006).
(5) Assuming a household size of 5.6 persons and monthly expenditure of $\$ 7.6$ per person per month (WFP, 2006).
(4) Assuming a household size of 5.6 persons and monthly expenditure of $\$ 10.7$ per person per month (WFP, 2006).

The earnings under the three alternative employment provisions are compared with four alternative household expenditure levels as indicators of living standards of poor and vulnerable households. The first is the TLSS 2001 poverty line of $\$ 0.55$ per day. The table shows that for a household on the poverty line, the income generated from EGPWP employment would range between about 5 and 12 per cent depending on the amount of employment. The poverty line is the
upper limit of the expenditure level for the poor and therefore the percentage additional contribution for households will be higher for those below the poverty line ${ }^{66}$. The other three household expenditure levels are from the analysis of food insecure and vulnerable undertaken by the World Food Programme (WFP, 2006). According to this analysis, about 20 per cent of households are considered to be food insecure, 23 per cent highly vulnerable and 21 moderately vulnerable. The average monthly expenditures per person are $\$ 4.6, \$ 7.6$ and $\$ 10.7$ for the food insecure, highly vulnerable and moderately vulnerable households respectively.

For the food insecure, on average EGPWP employment would make very large contributions to household incomes, ranging from 18 to 42 per cent depending upon the amount of employment. For the highly vulnerable and moderately vulnerable, the proportional contributions are lower because of higher expenditure levels but nevertheless significant.

### 5.4 LI and LB programme options

LI and LB approaches as components of EGPWPs are expected to play an important part in the strategy to deal with the problems of underemployment, unemployment and poverty while at the same time contributing to improving and preserving infrastructure assets. Applying LI and LB approaches side by side poses some challenges (section 3.4), notably the need to differentiate between the approaches and to deploy them where they are most suited. Differentiation between them requires attention to the institutional arrangements as well as wage rate policy. These aspects have been discussed earlier. In this section, we elaborate some of these aspects.

As noted in World Bank (2008), there is a need for rapid build-up of temporary employment. The LI approach is more suited for rapid build-up than the LB approach. Further, SEFOPE has developed experience in implementing the LI approach through the Cash for Work programme and therefore with ILO and other international support, it is well placed for rapid build-up of an LI programme. The disadvantages of the LI approach are that its emphasis is on employment creation rather than productive work. Because of this emphasis, and if there is rapid build-up of work, there is a danger that it might be difficult to build up supervisory capacity and as a result the quality of work may suffer. Nevertheless, by choosing projects on which a labour intensive approach may be adequate (e.g. maintenance and rehabilitation of suku and aldeia roads and tracks, water tanks and markets) use can be made of the labour intensive approach to some benefit.

In the short term, to enable rapid build-up, LI works will be implemented by SEFOPE, preferably with as much district level participation as feasible for capacity building at the district level and eventual decentralisation of such works to the district and sub-district levels. In the longer term, the LI approach with some limited equipment support could be appropriate for the development and preservation of community assets through community contracting or use of small local contractors. This would be compatible with the objectives of decentralisation of development efforts with local participation in planning and implementation in continuing efforts to generate employment and local asset creation and preservation.

[^36]The $\$ 2.00$ per day wage rate (or its equivalent if the wage rate has to be adjusted later) would be appropriate for this type of works. In the early stages, the mode of employment would be directly by SEFOPE or district authorities. In the longer term, with decentralisation, issues such as allocation of resources (whether central or local), mode of employment and payment, effective management of works and monitoring of effective use of resources and implementation would have to be addressed.

The LB approach is effective for the construction, rehabilitation and maintenance of certain types of infrastructure assets (e.g. district and sub-district roads and irrigation canals). It is also cheaper than the equipment-based approach and can form a basis for a locally sustainable approach to managing infrastructure assets while generating employment. It cannot be built up as rapidly as the labour intensive approach as the development of implementation capacity and planning take a little longer and require some expertise and effort (though the Serbisu ba Dame project discussed in section 3.3 was able to initiate the LB approach within a short period of time).

The aim is to implement the LB approach through private contractor operation. This would require development of the capacity of contractors. SEFOPE is taking the initiative in developing the LB approach in TL. There is a strong potential for successful implementation of the LB approach in TL. Given the need for productive employment generation and the poor infrastructure which is in need of improvement and maintenance, eventually it should be adopted by all GoTL ministries and agencies engaged in civil construction activities. This will require appropriate institutional arrangements and capacity development.

Clear differentiation between LI and LB components and programmes through the mode of implementation and type of works is essential. Differentiation on the type of works would require a consistent system of classification of local infrastructure, a detailed inventory of existing infrastructure assets, listing of new projects and clear criteria for determining which types of works are appropriate for LI and LB works.

Since implementation through contractors is proposed, they would be responsible for recruiting and paying the workers. Contractors would be free to set the wage rate taking account of local labour market and efficiency wage considerations. However, there would be a stipulation in LB contracts that the wage rate cannot be lower than the uniform LI wage rate. Differences in types of infrastructure works and mode of employment should ensure the differentiation in wage rate policy between the LI and LB approach.

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#### Abstract

Annex I Terms of Reference Labour Wage Rate Assessment: Employment-intensive Infrastructure Works - Timor Leste


## Purpose

The purpose of this assignment is to (i) establish a uniform practice for the remuneration of unskilled labour employed on a temporary basis in employment-intensive infrastructure works programmes, and (ii) establish some indicators on the extent of labour availability for this type of programmes in Timor Leste.

## Background and Rationale

The ILO has implemented a series of rural infrastructure works programmes in Timor Leste using labour-based work methods as a means of providing jobs to unemployed people. Works activities have mainly consisted of public works schemes, using labour-intensive work methods thus generating employment to the jobless as a means of contributing to the governments efforts to provide the disenfranchised with cash income and thereby reduce the incidences of civil unrest.

The most recent labour-based programme carried out by the ILO in Timor Leste was the Serbisu Ba Dame Project (Work for Peace). The objective of this 2.7 million US\$ project was to rapidly increase the purchasing power of unemployed people in the country by providing short-term employment opportunities, including youth and internally displaced people. The project succeeded in providing jobs to more than 46,000 beneficiaries, creating a total of 606,000 workdays of employment. The project outputs were provided during and as a response to a period of civil unrest in the country, thereby attempting to contribute to efforts to defuse the tense political situation. Core activities consisted of rural road rehabilitation ( 17.2 km ) and maintenance ( $2,325 \mathrm{~km}$ ) and restoration of irrigation canals ( 180 km ), relying on labour-intensive work methods, thereby channelling a significant amount of project funds to labour wages.

The Serbisu ba Dame had a tremendous impact in the country as it clearly demonstrated that on a very short notice it is possible to employ large numbers of unskilled workers in public work schemes, thereby combining the provision of cash income with productive employment. As a result, both the government and the donors are now keen to replicate the results, scaling up the coverage and volume of works and implementing the scheme for a longer duration.

The success of the Serbisu ba Dame Project has given the reputation of the ILO a significant boost in Timor Leste. Being able to provide 46,000 beneficiaries with short-term employment on a short notice in a crisis situation and during such a short project period has proved that the ILO can be effective and act in a timely manner when implementing employment-intensive public works. As a result the donors involved in funding such schemes in TL are now keen to see the ILO taking on a key role in the implementation of future programmes of such nature.

## World Bank Workfare Project

As a result of the success of the ILO Cash for Work programmes the World Bank has initiated the formulation of a National Employment Creation Programme in collaboration with a group of donors including AusAID, EU, Irish Aid and ADB. A first scoping mission presented a framework for a 58 million US\$ public works programme to be implemented over 5 to 6 years,
through which employment is to be offered to unskilled jobseekers in the rural areas. It is expected that this project will commence by the end of 2008.

## Labour Wage Assessment

Currently there is a multitude of donor and government funded projects engaging unskilled labour for public works as a means of providing cash employment in the rural areas. It should also be acknowledged that civil works carried out by local contractors engaged to carry out improvement and maintenance of public infrastructure is carried out using a high degree of manual labour.

Currently, there are wide variations in the wages paid by the different projects. There are no minimum wage levels established for this type of works. ILO has been paying US\$ 2.00 for a day of work in the Cash for Work Programmes. The Ministry of Infrastructure is paying 3.00 US\$ on their road works sites. One NGO carrying out labour-intensive works is paying up to 5.00 US\$ for a 6 hour workday (deducting 1.00 US\$, placed into an obligatory savings scheme).

In order to establish a uniform practice in current as well as future programmes there is an urgent demand for standardising the terms and conditions applied for temporary workers engaged in employment-intensive works programmes. A central part of this exercise would be to carry out a wage rate assessment thereby providing the Government with the means of establishing the appropriate wage rate(s) for casual labour engaged in public work schemes, taking into consideration current wage rate regulations and legislation as well as comparing these with the current opportunity costs for alternative forms of employment - in particular in relation to farming activities in the rural areas as well as the prevalent wage levels in the local construction industry.
It is recommended that this wage rate assessment is carried out as soon as possible and preferably before the new employment generation projects commence. In recent discussions with various donor agencies, it is clear that the guidance of the ILO is appreciated on this issue, thus providing the basis for establishing a uniform practice.
The EIIP of the ILO has carried out a number of labour wage rate assessments in the past for the purpose of establishing the appropriate wage rate in employment-intensive public works schemes. On this basis, the methodology to be applied for this study is well documented.
This type of work belongs to the core mandate of the ILO. Carrying out this study at this point of time would also be a useful contribution to the WB initiated workfare programme and once again remind key actors in this sector that the ILO is the specialised agency which possesses the relevant skills and experience in the field of employment-intensive works programmes.

## Scope of Services

In line with the above, the following activities has been identified as part of this assignment:

## Detailed Activities

(i) Identify the essential criteria for the setting of an appropriate wage level for temporary workers engaged in labour-based public works. These criteria need to include labour employed by both private and public sectors. These will include but not limited to considering the following aspects:

- existing minimum wage regulations for this type of works (if any),
- comparable wages for other works carried out by unskilled workers,
- going wage for unskilled labour in the project area, and any variations between urban and rural areas,
- wage levels earned by temporary labour in the farming sector, in both commercial and smallholder farms,
- wage rate prevalent in the private construction industry,
- availability of labour and their interest in work at a given wage rate,
- resulting purchasing power and ability to feed a household on the basis of a given wage rate (including reference to food for work and any other food distribution schemes),
- identify key ingredients in a cost of living index against which the wage rate can be assessed,
- appropriate wage level(s) to secure adequate levels of productivity,
- risk of distorting the general wage levels in the country,
- use of incentive schemes,
- social targeting, if appropriate,
- the availability, if any of social insurance mechanisms.
(ii) Carry out an estimate of the labour availability in three (3) sample districts to establish the number of potential job seekers to which employment can be offered in a largescale workfare programme. Using these numbers, make an assessment of the total numbers of employment which a country-wide workfare programme could address.
(iii) Assess the feasibility of adjusting the wage rate as a means of targeting certain preferred beneficiaries, i.e. the poorest of the poor, women, youth, veterans, IDPs, etc.
(iv) Review current efforts (if any) being made to establish systems and procedures to regulate labour wages in Timor Leste and make recommendations on how labour wage rates for employment-intensive work schemes fit into the overall set-up.
(v) Make specific recommendations on the wage rate to be applied in Cash for Work Schemes in Timor Leste. These include both emergency employment schemes as well as more development oriented infrastructure works programmes, executed both through force account as well as with the involvement of the private construction industry.
(vi) Identify other benefits to be provided to workers recruited on a temporary basis in public work schemes.
(vii) Suggest and outline a mechanism for regular review and revision of the labour wage rate in order for it to remain responsive to the criteria and considerations as identified above.

Annex II
SEFOPE / ILO Economic activity, labour availability and wage rate survey, August 2008: List of sample sukus and aldeias (1)

| District |  | Sub-district |  | Suco |  | Aldeia |  | Number of randomly selected households |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Name | Code | Name | Code | Name | Code | Name | Code |  |
| Baucau | 1 | Baucau | 11 | Buruma | 111 | Casmutu (1) | 343 | 25 |
| Baucau | 1 | Venilale | 12 | Uataco (Uato Haco) | 121 | Utu Assa | 551 | 25 |
| Bobonaro | 2 | Maliana | 21 | Lahomea | 211 | Maliana (1) | 725 | 25 |
| Bobonaro | 2 | Bobonaro | 22 | Lourba | 221 | Gumer | 643 | 25 between 2 aldeia |
|  |  |  |  |  |  | Lourba | 644 |  |
| Covalima | 3 | Fohoren | 31 | Dato Tolu | 311 | Fatuc Cabuar Craic | 778 | $\begin{gathered} 25 \text { between } 2 \\ \text { aldeia } \end{gathered}$ |
|  |  |  |  |  |  | Natardic | 780 |  |
| Covalima | 3 | Zumalai | 32 | Tashilin | 321 | Baura Icun | 894 | 25 between 2 aldeia |
|  |  |  |  |  |  | Culu Oan | 895 |  |
| Dili | 4 | Dom Aleixo | 41 | Bairro Pite | 411 | Avança (1) | 975 | 25 between 2 aldeia |
|  |  |  |  |  |  | Frecat (1) | 980 |  |
| Dili | 4 | Cristo Rei | 42 | Becora | 421 | Au-Hun (1) | 926 | 25 between 2 aldeia |
|  |  |  |  |  |  | Carau Mate (1) | 931 |  |
| Ermera | 5 | Hatolia | 51 | Manusae | 511 | Buana | 1312 | 25 between 2 aldeia |
|  |  |  |  |  |  | Cucara | 1313 |  |


| Ermera | 5 | Atsabe | 52 | Baboi Leten | 521 | Baboi Ilat | 1158 | 25 between 2 <br> aldeia |
| :--- | ---: | :--- | ---: | :--- | ---: | :--- | ---: | ---: |
|  |  |  |  |  |  | Coilequi | 1159 |  |
| Lautem | 6 | Lautem | 61 | Euquisi | 611 | Barliu | 1469 | 25 between 2 <br> aldeia |
|  |  |  |  |  |  | Borubatu | 1470 |  |
| Lautem | 6 | Iliomar | 62 | Iliomar II | 621 | Rumutau | 1435 | 25 between 2 <br> aldeia |
| Manufahi | 7 | Alas | 71 | Uma Berloic | 711 | Colocau | 1436 | 1826 |
|  |  |  |  |  | Uma Feric | 25 between 2 <br> aldeia |  |  |
| Manufahi | 7 | Fatuberliu | 72 | Clacuc |  | 721 | Manehat | 1828 |

Annex III
SEFOPE / ILO Economic Activity, Labour Availability and Wage Rate Survey, August 2008
HOUSEHOLD QUESTIONNAIRE

| Part 1. Household Information - Location Identification | Code |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. District |  |  |  |  |  |  |
| 2. Sub-District |  |  |  |  |  |  |
| 3. Suku (suco) |  |  |  |  |  |  |
| 4. Aldeia |  |  |  |  |  |  |
| 5. Household number |  |  |  |  |  |  |
| 6. Name of Head of Household |  |  |  |  |  |  |

Number of persons in household
$\square$ Female $\square$ Total $\square$

## Enumeration Particulars

Enumerator
Supervisor

1. Name
2. Code
3. Date of interview and supervisor check
4. Signature

| HOUSEHOLD QUESTIONNAIRE |  |  |
| :---: | :---: | :---: |
| Part 2 Dwelling and Household Information |  |  |
| 1. What category of ownership is your residence? | $\begin{aligned} & \text { Individual and/or family owned property }=1 \\ & \text { Community or Suco owned property }=2 \\ & \text { Government owned property }=3 \\ & \text { Church property }=4 \\ & \text { Other }=8 \text { (explain other briefly) } \end{aligned}$ |  |
| 2. Primary construction material external walls | $\begin{aligned} & \hline \text { Concrete } / \text { brick }=1 \\ & \text { Wood }=2 \\ & \text { Bamboo }=3 \\ & \text { Corrugated iron }=4 \\ & \text { Clay }=5 \\ & \text { Other }=8 \\ & \hline \end{aligned}$ |  |
| 2. Primary construction material <br> - roof | $\begin{aligned} & \text { Concrete }=1 \\ & \text { Wood }=2 \\ & \text { Bamboo/thatch/grass }=3 \\ & \text { Corrugated iron }=4 \\ & \text { Tiles }=5 \\ & \text { Asbestos }=6 \\ & \text { Other }=8 \end{aligned}$ | $\square$ |
| 2. Primary construction material - floor | $\begin{aligned} & \text { Concrete } / \text { Tile }=1 \\ & \text { Wood }=2 \\ & \text { Soil }=3 \\ & \text { Other }=8 \\ & \hline \end{aligned}$ | $\square$ |

Timor Leste: SEFOPE / ILO Economic Activity, Labour Availability and Wage Rate Survey, August 2008

| HOUSEHOLD QUESTIONNAIRE |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Part 2 (continued) Dwelling and Household Information |  |  |  |  |
| 5. How many square meters or hectares of land does the household have access to for farming, if any? |  |  |  |  |
| 1 = LESS THAN $5000 \mathrm{M}^{2}$ (5000 M ${ }^{2}$ IS APPROXIMATELY ONE FOOTBALL FIELD) |  |  | $\square 1$ |  |
| $2=5000 \mathrm{M}^{2}-9999 \mathrm{M}^{2}$ |  |  | $\square 2$ |  |
| $3=1$ BUT LESS THAN 5 HA |  |  | $\square 3$ |  |
| $4=5$ BUT LESS THAN 10 HA |  |  | $\square 4$ |  |
| $5=10$ But Less than 20 HA |  |  | $\square 5$ |  |
| $6=20$ HA OR MORE |  |  | $\square 6$ |  |
| 7 = DON'T KNOW |  |  | $\square 7$ |  |
| 6. How many livestock are owned by the household? | Chickens |  |  |  |
|  | Pigs |  |  |  |
|  | Sheep |  |  |  |
|  | Goats |  |  |  |
|  | Horses |  |  |  |
|  | Cattle |  |  |  |
|  | $\square$ Buffalo |  |  |  |
| 7. Does the household grow any crops, either temporary or permanent, to support the household? If yes, please tick ( $\sqrt{ }$ ) applicable box(es). | $\square$ 1. Rice $\quad \square \quad 6$. Fruit (permanent) |  |  |  |
|  | 2. Maize 7. Coffee |  |  |  |
|  | 3. Cassava <br> 4. Vegetables <br> 5. Fruit (temporary) | 8. Coconut |  |  |
|  |  | 9. Other temporary crops |  |  |
|  |  | 10. Other permanent crops |  |  |

Timor Leste: SEFOPE / ILO Economic Activity, Labour Availability and Wage Rate Survey, August 2008

| Part 3: People who normally live in this household* |  |  |  | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  | 2 | 3 |  |
| Person number | Name | Age On last birthday (years) | Sex $\begin{gathered} M=1 \\ F=2 \end{gathered}$ | Relationship to the head of household |
| 1 |  |  |  | 1 |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |
| 6 |  |  |  |  |
| 7 |  |  |  |  |
| 8 |  |  |  |  |
| 9 |  |  |  |  |
| 10 |  |  |  |  |
| 11 |  |  |  |  |
| 12 |  |  |  |  |
| 13 |  |  |  |  |
| 14 |  |  |  |  |
| 15 |  |  |  |  |

* I.e. those who have normally slept in the home 4 nights per week in the last 3 months.

SECTION 4: This section covers activities of household members aged 15 and above in the last seven days, unemployment and non-economic activities. Ask for all household members aged 15 and above. It is very important that you try to ask these questions of each person themselves if at all possible.
Read out: Now I am going to ask some questions about activities in the last seven days for each household member aged 15 and above.


If "Yes" for a person to any part of Question $4.1 \rightarrow$ Go to $Q 4.4$ for that person.
If "No" to all options for a person, continue with next question.

|  |  | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.2 | If "No" to all parts of Question 4.1 <br> Even though $\qquad$ did not do any of these activities in the last seven days, does he/she have a job, business, or other economic or farming activity that he/she will definitely go to? <br> For agricultural activities, the off season in agriculture is not a temporary absence. $\begin{aligned} & 1=\mathrm{YES} \\ & 2=\text { No } \rightarrow \text { Go to } Q 4.8 \end{aligned}$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ | $\square 1$ $\square 2$ |
| 4.3 | What was the main reason $\qquad$ was absent from this activity in the last seven days? Mark only one reason. <br> 01 = Own ILLNESS OR INJURY <br> $02=$ CARING FOR FAMILY OR OTHERS <br> 03 = Other family/COMmunity obligations (FUNERALS, mEETINGS) <br> 04 = PROBLEMS WITH TRANSPORT <br> 05 = BAD WEATHER <br> $06=$ Vacation, LEAVE <br> $07=$ Study or training leave <br> $08=$ OTHER REASON, PLEASE specify |  |  |  |  |  | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ |  |  |


|  |  | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.4 | What is the type of ......'s place of work? <br> 01 Government (including police, military, teacher) <br> 02 UN Organisation <br> 03 NGO (paid or voluntary) <br> 04 Employment in private sector <br> 05 Self employment - working in own business including partnership <br> 06 Subsistence farming, fishing or other <br> 07 Looking for work and available to start work |  | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ |


$\rightarrow$ Go to Q 4.16

The following questions cover unemployment and non-economic activities
Ask for all household members aged 15 and above who did not work and were not absent from work (i.e. for those_ whose answer on Q 4.2 = 2).
Read out: Now I am going to ask some questions about whether you (......) wanted and were (was) available for any of the types of work mentioned earlier

|  |  | 01 | 02 | 03 | 04 | 05 | 06 | 07 | 08 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 4.8 | Why did $\qquad$ not work during the past seven days? <br> $01=$ HAS FOUND A Job, but is only Starting at a definite DATE IN THE FUTURE $\rightarrow$ Go to $\mathbf{Q} 4.16$ <br> $02=$ SChOLAR OR STUDENT AND PREFERS NOT TO WORK <br> 03 = HOUSEWIFE/HOMEMAKER AND PREFERS NOT TO WORK <br> 04 = RETIRED AND PREFERS NOT TO SEEK FORMAL WORK <br> $05=$ ILLNESS, INVALID, DISABLED OR UNABLE TO WORK (HANDICAPPED) <br> 06 = TOO YOUNG OR TOO OLD TO WORK <br> 07 = LACK OF SKILLS OR QUALIFICATIONS FOR AVAILABLE JOBS <br> 08 = CANNOT FIND ANY WORK <br> 09 = CANNOT FIND SUITABLE WORK (SALARY, LOCATION OF WORK OR CONDITIONS NOT SATISFACTORY) <br> $10=$ RETRENCHED <br> 11 = OTHER REASON, SPECIFY $\qquad$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ $\square 02$ $\square 03$ $\square 04$ $\square 05$ $\square 06$ $\square 07$ $\square 08$ $\square 09$ $\square 10$ $\square 11$ | $\square 01$ 02 03 04 05 06 07 08 09 10 11 |
|  | Brief explanation of "11 = Other reason" |  |  |  |  |  |  |  |  |
| 4.9 | If a suitable job is offered, will $\qquad$ accept it? $\left.\begin{array}{l} 1=\text { YES } \\ 2=\text { No } \\ 3=\text { DON'T KNOW } \end{array}\right\} \quad \rightarrow \text { Go to Q } 4.16$ | $\square$ <br> $\square 2$ <br> $\square$ <br> 3 | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ | $\square 1$ $\square 2$ $\square 3$ |

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \& \& 01 \& 02 \& 03 \& 04 \& 05 \& 06 \& 07 \& 08 \\
\hline 4.10 \& \begin{tabular}{l}
During the past four weeks, has \(\qquad\) taken any action \\
1 = to look for any kind of work \\
\(2=\) to start any kind of business
\end{tabular} \& \[
\begin{aligned}
\& \text { Yes No } \\
\& \square 1 \square 2 \\
\& \square 1 \square 2
\end{aligned}
\] \& \[
\begin{aligned}
\& \text { YES No } \\
\& \square 1 \square 2 \\
\& \square 1 \square 2
\end{aligned}
\] \& \[
\begin{aligned}
\& \text { Yes No } \\
\& \square 1 \square 2 \\
\& \square 1 \square 2
\end{aligned}
\] \& Yes No

$\square$ $\square$
$1 \square$ 2 \&  \& Yes No
1 $\square$
1 2

$\square$ \& \[
$$
\begin{aligned}
& \text { Yes No } \\
& \square 1 \square 2 \\
& \square 1 \square 2
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \text { Yes No } \\
& \square 1 \square 2 \\
& \square 1 \square 2
\end{aligned}
$$
\] <br>

\hline 4.11 \& Has ...... ever worked before for payment in cash or kind (other than on the family farm)?

$$
\begin{aligned}
& 1=\mathrm{YES} \\
& 2=\text { No } \rightarrow \text { Go to } Q 4.15
\end{aligned}
$$ \& $\square 1$

$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ \& $\square 1$
$\square 2$ <br>
\hline 4.12 \& How long ago was it since $\qquad$ last worked (other than on the family farm)?

$$
\begin{aligned}
& 01=1 \text { WEEK }- \text { LESS THAN } 1 \text { MONTH } \\
& 02=1 \text { MONTH }- \text { LESS THAN } 3 \text { MONTHS } \\
& 03=3 \text { MONTHS }- \text { LESS THAN } 6 \text { MONTHS } \\
& 04=6 \text { MONTHS }- \text { LESS THAN } 12 \text { MONTHS ( } 1 \text { YEAR) } \\
& 05=1 \text { YEAR }- \text { LESS THAN } 3 \text { YEARS } \\
& 06=3 \text { YEARS OR MORE } \\
& 07=\text { DON'T KNOW }
\end{aligned}
$$ \& $\square 01$

$\square 02$
$\square 03$
$\square 04$
$\square 05$
$\square 06$

$\square 07$ \& | $\square 01$ |
| :--- |
| $\square 02$ |
| $\square 03$ 04 05 06 07 | \& 01

02
03
04
05
06

07 \& | $\square 0$ |
| :--- |
| $\square 0$ |
| 02 |
| $\square 0$ 04 05 06 $\square$ 07 | \& $\square 01$

$\square 02$
$\square 03$
$\square 04$
$\square 05$
$\square 06$
$\square 07$ \& $\square 0$
02
03
04
05
06
07 \& $\square 01$
$\square 02$
$\square 03$
$\square 04$
$\square 05$
$\square 06$
$\square 07$ \& $\square$
02
03
04
05
06
07 <br>

\hline 4.13 \& | If payment for $\qquad$ in the last job was in cash, what was it? |
| :--- |
| Give amount in figures, indicating whether it is per day or per month. |
| If the response is "NONE", "REFUSE TO ANSWER" or "DON'T KNOW", INDICATE BELOW. | \& \& \& \& \& \& \& \& <br>

\hline \& $$
\begin{aligned}
& 1=\text { NONE } \\
& 2=\text { REFUSE TO ANSWER } \\
& 3=\text { DON'T KNOW }
\end{aligned}
$$ \& $\square 1$

$\square 2$
$\square 3$ \& $\square 1$
$\square 2$

$\square 3$ \& | $\square 1$ |
| :--- |
| $\square$ |
| 2 3 | \& \[

$$
\begin{aligned}
& \square 1 \\
& \square 2 \\
& \square 3
\end{aligned}
$$

\] \& | $\square 1$ |
| :--- |
| $\square 2$ |
| $\square$ |
| 3 | \& $\square 1$

$\square 2$

$\square 3$ \& | $\square$ |
| :--- |
| $\square 2$ |
| 2 3 | \& $\square 1$

$\square 2$
$\square 3$ <br>

\hline 4.14 \& | Ask only if an amount is given in Q 4.17 Is this .... |
| :--- |
| 1 = Per day |
| 2 = Per month | \& | $\square 1$ |
| :--- |
| $\square 2$ | \& \[

$$
\begin{aligned}
& \square 1 \\
& \square 2
\end{aligned}
$$

\] \& \[

$$
\begin{aligned}
& \square 1 \\
& \square 2
\end{aligned}
$$

\] \& \[

$$
\begin{array}{r}
\square 1 \\
\square 2 \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
\square 1 \\
\square 2 \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
\square 1 \\
\square 2 \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
\square 1 \\
\square 2 \\
\hline
\end{array}
$$

\] \& \[

$$
\begin{array}{r}
\square 1 \\
\square 2 \\
\hline
\end{array}
$$
\] <br>

\hline
\end{tabular}

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \& \& 01 \& 02 \& 03 \& 04 \& 05 \& 06 \& 07 \& 08 \\
\hline 4.15 \& \begin{tabular}{l}
How does ...... support him/herself? \\
1 = Did odd jobs during the past seven days \\
\(2=\) Supported by persons in the household \\
3 = Supported by persons not in the household \\
4 = Supported by charity, church, welfare, etc. \\
5 = Savings or money previously earned \\
6 = Borrowing \\
7 = Other sources, specify in the box at the bottom
\end{tabular} \& \begin{tabular}{l}
Yes No

$\qquad$
$1 \square 2$

$\square$ <br>
$\square$ $\square$ <br>
$\square$ $\square$ <br>
$\square$ $\square$
$\qquad$
$\qquad$

 \& 

Yes No

$\qquad$ <br>
$\square$ <br>
$\square 2$
$\square_{2}$

$$
1 \square 2
$$

$$
1 \square 2
$$

$$
1 \square 2
$$

$\qquad$
$\qquad$

 \& 

Yes No $\square 1$ $\qquad$
$\square$
$\square 1 \square 2$ <br>
$\square$ $\square$ <br>
$\square 1$ $\square$ <br>
$\square$ $\square$
$\qquad$
$\qquad$

 \& 

Yes No $\square 1 \square 2$ <br>
$\square 1 \square 2$ <br>
$\square 1 \square 2$ <br>
$\square 1 \square 2$ <br>
$\square 1 \square 2$ <br>
$\square 1 \square 2$ <br>
$\square 1 \square 2$
\end{tabular} \& Yes No $\square 1$ $\qquad$

$\square_{2}$
$1 \square 2$
$1 \square 2$
$1 \square 2$
$\square_{2}$
$\qquad$

$\qquad$ \& \[
$$
\begin{aligned}
& \text { Yes No } \\
& \square_{1} \square_{2} \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square 1 \square 2 \\
& \square
\end{aligned}
$$

\] \& \begin{tabular}{l}
Yes No

$\square$

$\square$

$$
\square 1
$$

$\square$ <br>
$\square$ $\square$ <br>
$\square 1$ $\qquad$ <br>
$\square$ $\square$
$\qquad$
$\qquad$
\end{tabular} \& Yes No $\square 1 \square 2$

$\square 2$
$1 \square 2$
$1 \square 2$
$1 \square_{2}$
$1 \square 2$
$\qquad$ $1 \square 2$ <br>
\hline \& Brief explanation of other sources (7) \& \& \& \& \& \& \& \& <br>

\hline \& | If 'YES" to response category 1 |
| :--- |
| $\rightarrow$ Go back to Q 4.1 for that person | \& \& \& \& \& \& \& \& <br>

\hline
\end{tabular}

The following questions are for all members of the household 15 years old and above.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline \& \& 01 \& 02 \& 03 \& 04 \& 05 \& 06 \& 07 \& 08 \\
\hline 4.16 \& \begin{tabular}{l}
If manual work in road improvement, such as digging earth or hauling is offered at \(\$ 1.00\) per day, would ............ be willing to take it up?
\[
1 \text { = Yes }
\] \\
\(\rightarrow\) Go to Q4.0 for next person in household 15 years or older. Go to Q 5.1 if section 4 has been completed for all persons 15 years or older.
\[
2=\mathrm{No}
\]
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \[
\begin{aligned}
\& \square 1 \\
\& \square 2
\end{aligned}
\] \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \\
\hline 4.17 \& \begin{tabular}{l}
If manual work in road improvement, such as digging earth or hauling it, is offered at \(\$ \mathbf{2 . 0 0}\) per day, would ............ be willing to take it up?
\[
1 \text { = YES }
\] \\
\(\rightarrow\) Go to Q4.0 for next person in household 15 years or older. Go to Q 5.1 if section 4 has been completed for all persons 15 years or older.
\[
2=\mathrm{NO}
\]
\end{tabular} \& \[
\begin{aligned}
\& \square 1 \\
\& \square 2
\end{aligned}
\] \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \[
\begin{aligned}
\& \square 1 \\
\& \square 2
\end{aligned}
\] \& \begin{tabular}{l}
\(\square\) \\
\(\square 2\)
\end{tabular} \& \[
\begin{aligned}
\& \square 1 \\
\& \square 2
\end{aligned}
\] \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\)
\end{tabular} \\
\hline 4.18 \& \begin{tabular}{l}
What is the minimum acceptable pay for such work (i.e. manual work in road improvement, such as digging earth or hauling it) for .......... \\
Give amount in figures, indicating whether it is per day or per month. \\
If the response is "NONE", "REFUSE TO ANSWER" or "DON'T KNOW", INDICATE BELOW.
\end{tabular} \& \& \& \& \& \& \& \& \\
\hline \& \[
\begin{aligned}
\& 1=\text { NONE } \\
\& 2=\text { REFUSE TO ANSWER } \\
\& 3=\text { DON'T KNOW }
\end{aligned}
\] \& \begin{tabular}{l}
\\
1
\\
2
\\
3
\end{tabular} \& \begin{tabular}{l}
\(\square\) \\
1 \\
\(\square 2\) \\
\(\square 3\)
\end{tabular} \& \begin{tabular}{l}
\(\square\) \\
1
\\
2
\\
3
\end{tabular} \& \begin{tabular}{l}
\(\square 1\) \\
\(\square 2\) \\
\(\square 3\)
\end{tabular} \& 1

3 \& | $\square$ |
| :--- |
| 1 2 |
| $\square$ |
| 3 | \& $\square 1$

$\square 2$

$\square 3$ \& | 1 |
| :--- |
| 2 |
| 3 | <br>

\hline \& $\rightarrow$ Go to Q4.0 for next person in household 15 years or older. Go to Q 5.1 if section 4 has been completed for all persons 15 years or older. \& \& \& \& \& \& \& \& <br>
\hline
\end{tabular}

Timor Leste: SEFOPE / ILO Economic Activity, Labour Availability and Wage Rate Survey, August 2008
Additional questions for all households

| 5.1 | Does the household own any of the following? <br> a) BICYCLE <br> b) RADIO <br> c) BED <br> d) WATCH OR CLOCK <br> e) BOOKS <br> f) TELEVISION <br> g) FRIDGE <br> h) ELECTRICITY CONNECTION AND/OR GENERATOR <br> i) PIPED WATER SUPPLY | Yes No $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square 2$ $1 \square$ 2 | 5.4 | In the past 12 months, was there any young person, aged 5-17 years, who has left this household? $\begin{aligned} & 1 \text { = YES } \\ & 2=\text { No } \\ & 3 \text { = DON'T KNOW } \\ & 4=\text { Not APPLICABLE (NO CHILDREN IN HOUSEHOLD) } \end{aligned}$ | $\square 1$ $\square 2$ $\square 3$ $\square 4$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 5.2 | In the past 12 months, did any adult (18 years and above) in this household go hungry because there wasn't enough food? $\begin{aligned} & 1=\text { NEVER } \\ & 2=\text { SELDOM } \\ & 3=\text { SOMETIMES } \\ & 4=\text { OFTEN } \\ & 5=\text { ALWAYS } \\ & 6=\text { NOT APPLICABLE (NO ADULTS IN HOUSEHOLD) } \end{aligned}$ | $\square$ 2 3 4 5 6 | 5.5 | What is the main source of income for this household? <br> 1 = SALARIES AND/OR WAGES <br> 2 = Remittances <br> 3 = Pensions and grants <br> 4 = SALES OF FARM PRODUCTS AND SERVICES <br> 5 = Other non-farm income <br> $6=$ No income | $\square 1$ $\square 2$ $\square 3$ $\square 4$ $\square 5$ $\square 6$ |
| 5.3 | In the past 12 months, did any child (17 years or younger) in this household go hungry because there wasn't enough food? <br> 1 = Never <br> 2 = Seldom <br> 3 = Sometimes <br> 4 = Often <br> $5=$ ALWAYS <br> $6=$ Not Applicable (No children in household) | $\square$ <br> 1 2 <br> $\square$ <br> 3 <br> $\square \begin{array}{r}4 \\ 5 \\ \square \\ \hline\end{array}$ |  |  |  |

## End of interview: Thank the respondent!

Interviewer:
6.0 $\quad$ Indicate the column number(s) of the person(s) who answered all or most of the questions.


[^0]:    ${ }^{1}$ DNE (2008) summarises basic data from the 2007 Timor Leste Survey of Living Standards (TLSLS). This source has been used extensively during this assignment and has been cited in this report as TLSLS.
    ${ }^{2}$ Also referred to as YES 2007 in this report.
    ${ }^{3}$ See section 3.2 for more details on these programmes.

[^1]:    ${ }^{4}$ Though according to the consultant's recent discussions at the MOI, it appears that a wage rate of $\$ 5.00$ per day is being paid for labour intensive works on roads.

[^2]:    ${ }^{5}$ Census pages on the DNE website (http://dne.mopf.gov.tl). Henceforth referred to as Census 2004.
    ${ }^{6}$ It is estimated (IMF, 2008) that there are about one hundred thousand IDPs in the process of being reintegrated into communities. About 30 per cent of IDPs continue to reside in 58 camps, mainly in and around Dili.
    ${ }^{7}$ Poverty assessment based on UNDP (2001). Henceforth, UNDP (2001) and World Bank (2001) have been referred to as TLSS 2001.
    ${ }^{8}$ A new poverty assessment based on TLSLS 2007 is being completed and will provide a more up to date poverty profile.
    ${ }^{9}$ Data used here to provide a broad overview of the labour market and employment situation are from TLSLS 2007 compared with TLSS 2001. Other sources such as Census 2004 present a broadly similar picture.
    ${ }^{10}$ It is assumed that a substantial proportion of health and education employment is in the public sector.

[^3]:    ${ }^{11}$ Identified as households relying primarily on agriculture on un-irrigated land for both their food source and income generation and without access to off-farm earning opportunities such as trading, using skills or salaried jobs. Other groups which are vulnerable include victims of shocks such as unemployment and ill health.

[^4]:    ${ }^{12}$ The high unemployment rates in the younger age group (see Table 2.5 below) also support this conclusion.

[^5]:    ${ }^{13}$ The term "employment generating public works" (EGPW) has been used to encompass labour-based and labour intensive approaches in this report (see section 1.1).

[^6]:    ${ }^{14}$ Safety net employment is often rationed to one person per household for affordability.
    ${ }^{15}$ Curtain (1999) found that the operational mechanism implemented to transfer $\$ 1$ under the Social
    Safety Net programme to the bottom 15 per cent of the poor in Indonesia cost over $\$ 3$. This may have been partly because of inefficiencies and malpractices but partly because of the non-labour costs of programme operations.
    ${ }^{16}$ This is usually also the case for safety nets.

[^7]:    ${ }^{17}$ International evidence on labour policies and practices and their effectiveness discussed by Tajgman and de Veen (1998) confirms this.
    ${ }^{18}$ This contribution of the LI approach is considered later in the report.
    ${ }^{19}$ Efficiency wage is a wage rate above the market rate paid to ensure better performance in the form of higher productivity or efficiency and reduce labour turnover.
    ${ }^{20}$ On LB projects and programmes, setting given tasks and making payment conditional on completion of the task has been found to be a good way of linking a pay to performance since it is relatively simple to supervise and administer (Tajgman and de Veen, 1998).

[^8]:    ${ }^{21}$ Developing the capacity of private contractors and implementing LB works through them are important objectives of externally supported SEFOPE programmes being implemented and in preparation.

[^9]:    ${ }^{22}$ Also spelt suco.
    ${ }^{23}$ The much larger number of participants was achieved partly by imposing a ceiling of 15 days of participation per person and partly because of gains from operational efficiency. The larger number of workdays were achieved through operational efficiency.
    ${ }^{24}$ Identification and selection were also necessary because the aim of the project was to target particular groups, especially youth ( 15 to 29 years age group), internally displaced persons (IDPs) and women. The project beneficiaries were $89 \%$ youth, $36 \%$ IDPs and $19 \%$ women.
    ${ }^{25}$ There are alternative spellings in use including Oecusse and Oecussi.

[^10]:    ${ }^{26}$ It is assumed that labour intensive works will typically be close to communities and therefore labour availability will be less of a concern.
    ${ }^{27}$ Personal communication from Mr Gunther Kohl, GTZ Office, Dili.

[^11]:    ${ }^{28}$ Additional funding from EU and Ireland is expected to be phased in later dovetailing with the World Bank led workfare initiative which is discussed below.
    ${ }^{29}$ In addition the programme includes some provision for the rehabilitation of other public / community infrastructure identified by project stakeholders at local level.
    ${ }^{30}$ While the focus of Tim-Works Norway is on the roads sector, there is also potential for the use of labour-based methods for other infrastructure works as demonstrated by the earlier Cash for Work projects.

[^12]:    ${ }^{31}$ The details have not yet been finalised. It is referred to here purely for highlighting the implications of the proposed modes of operations for wage rate policy.

[^13]:    ${ }^{32}$ Though it is recognised that some level of social protection intervention through the first component model will be needed for some time. The labour intensive approach could continue and could be more suited to being linked to LDP than labour-based approach which is more suited for larger projects implemented through contractors.

[^14]:    ${ }^{33}$ Assuming broadly uniform cost of living across the country.

[^15]:    ${ }^{34}$ The distortions could be statutory i.e. government stipulation of wage rates or abnormally large interventions in the labour market such as UN presence in relation to the size of the economy.
    ${ }^{35}$ Labour supply elasticity is the response of labour supply to change in the wage rate defined as the percentage change in labour supply for a 1 per cent change in the wage rate.

[^16]:    ${ }^{36}$ The first national survey, the Timor-Leste Living Standards Survey (TLSS), was undertaken in 2001 with a smaller nationally representative sample of 1800 households from 100 sucos.
    ${ }^{37}$ We are grateful to DNE for making these data available.
    ${ }^{38}$ There was only one missing value, i.e. one episode of hiring workers for which the method of payment was not recorded.

[^17]:    ${ }^{39}$ All but one of them were shown as being paid in kind. It is reasonable to assume that data for the value of payment in kind could not be obtained and therefore these records can be treated as missing values rather than zero pay.

[^18]:    ${ }^{40}$ The minimum wage rate at which a person is willing to undertake a given type of employment.

[^19]:    ${ }^{41}$ Strictly speaking, this is the elasticity at $\$ 0.50$ wage rate. The average elasticity for the wage rate range $\$ 0.50$ to $\$ 1.00$ is 2.81 as the last column in Table 4.4 shows.
    ${ }^{42}$ Labour availability in this context can also be interpreted as the need for EGPWP employment (see section 5).
    ${ }^{43}$ For the purpose of the survey, Youth were defined to include those in the 15 to 29 age group. age range.

[^20]:    ${ }^{44}$ The country is divided into Regions 1 to 5 broadly from east to west (see Figure 4.4). Region 1: Baucau, Lautem and Viqueque Districts; Region 2: Ainaro, Manufahi and Manatuto Districts; Region 3: Aileu, Dili and Ermera Districts; Region 4: Bobonaro, Covalima and Liquiçá Districts, and Region 5: Oecusi District.

[^21]:    ${ }^{45}$ Data were entered in Excel datasheets and transferred to SPSS for processing.
    ${ }^{46}$ In tables of results, the sum of households is less than 410 and the number of persons 15 years and older is less than 1196, because of missing values.

[^22]:    ${ }^{47}$ Buruma, one of the sample locations in Baucau, was chosen to be peri-urban since it is close to the urban suko of Bahu in Baucau district. In spite of this proximity, the specific households sampled demonstrate characteristics similar to rural samples.

[^23]:    ${ }^{48}$ A question on whether and how often children were hungry was also included. The results have not been shown here because adults hungry and children hungry were strongly correlated.

[^24]:    ${ }^{49}$ As noted earlier, given the small local samples, the characteristics of respondent households may reflect very local features rather than the district characteristics.
    ${ }^{50}$ The conventional ILO definition excludes this category from the labour force. It is legitimate to include them in the labour force in Timor Leste and other developing countries since they are available for work but discouraged from seeking employment because of lack of opportunities.

[^25]:    ${ }^{51}$ Where respondents were unwilling or unable to provide information on the wage rate or earnings, they were asked to place their earnings within a range.

[^26]:    ${ }^{52}$ This table includes responses from sample households for the urban areas of Dili and Maliana in Bobonaro. The results for the urban samples are considered separately below.

[^27]:    ${ }^{53}$ World Bank (2008) states that provision should be made for older and disabled persons to participate in the programmes so that these groups are not disadvantaged.
    ${ }_{54}$ Pearson chi-square test shows that the difference is statistically significant at 95 per cent confidence level.

[^28]:    ${ }^{55}$ The cross-tabulations discussed here provide some approximate comparisons which may conceal the influences of other factors. There may also be differences between samples from different districts. More sophisticated statistical analysis may provide further insights.
    ${ }^{56}$ The labour force participation rate of this age group is lower than that for the older age groups because of participation in education of a proportion of those in this age group.
    ${ }^{57}$ The proportion of young on urban EGPWPS is likely to be much higher (see section 4.8 below).

[^29]:    ${ }^{58}$ See section 4.8 for more details.

[^30]:    ${ }^{59}$ Somewhat surprisingly, the second most important source of livelihood is "sale of farm products and services". As noted in section 4.5, the local urban market offers opportunities to some households to tend and sell fruit, vegetables and small livestock.

[^31]:    ${ }^{60}$ TLSLS 2007 evidence also shows that a small proportion of the urban population is engaged in farming.

[^32]:    ${ }^{61}$ For labour-based works, typical requirements at any one time are likely to be between 100 to 200 persons though usually there is a period of build up and tapering off. Local labour requirements may be higher if work is scheduled on a stretch of road longer than one km . Total labour requirement for road construction or periodic maintenance may range between 2,500 and 4,000 person-days per km .
    ${ }^{62}$ As noted earlier, the average response rate for the sample was estimated to be about 75 per cent if the wage rate is $\$ 2.00$ per day.

[^33]:    ${ }^{63}$ The average population density in Timor Leste is about 70 persons per $\mathrm{km}^{2}$. If Dili district is excluded, the population density in the rest of the country is about 60 persons per $\mathrm{km}^{2}$.

[^34]:    ${ }^{64}$ The excel table has been provided to the SEFOPE / ILO team for making further estimates under different assumptions.

[^35]:    ${ }^{65}$ In the SEFOPE / ILO survey sample, the average participation per household for the households from which persons were willing to participate was 2.4 persons. An average of two per household has been assumed here though the actual participation per household will vary.

[^36]:    ${ }^{66}$ Data on the distribution of household expenditure levels would be required for a more detailed assessment on the impact on poor households. TLSS 2001 is now dated. It would be useful to undertake the assessment with data from the poverty assessment based on TLSLS 2007 when this becomes available.

