



Vanuatu

Actuarial valuation of the proposed Workers Compensation scheme



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1. Introduction

The ILO project ‘Sub-regional initiative on social security for the Pacific island countries’ recommended a social insurance workers compensation scheme for Vanuatu to replace the employers’ liability provisions in the existing labour legislation. The new scheme would ensure that all wage and salaried workers are covered and provide better and more comprehensive protection and benefits. In August 2005, a report *Review and Strengthening of Workers Compensation Insurance in Vanuatu* was submitted¹. This report set out the new scheme in the form of proposed amendments to the Amended Draft Workers Compensation Bill, 1999.

In the framework of the ILO project, an actuarial valuation has been undertaken by W.R. McGillivray, F.S.A., to evaluate the proposed Workers Compensation (WC) scheme in Vanuatu. This report² has been organized as follows:

- Description of the proposed Workers Compensation scheme
- Covered population
- Financial system
- Actuarial assumptions and estimation of the global contribution rate
- Contribution rates by industry classifications
- Financial implications of the proposed WC scheme
- Summary of recommendations

Four Annexes supplement the report. Annex 1 presents contribution rates by industry classifications. Annex 2 contains capital values for permanent disablement and survivors pensions. Annex 3 summarises different industry classification systems and Annex 4 indicates the contribution rates of WC scheme in selected countries.

There is virtually no national data for estimating the incidence and severity of occupational injuries for all wage and salaried workers who will be covered by the WC scheme in Vanuatu. It is recommended that this initial actuarial valuation should be followed by triennial actuarial valuations.

Recommendation: Actuarial valuations of the WC scheme should be undertaken triennially.

¹ This report is included as “Chapter 16. Workers’ Compensation in Vanuatu” of the ILO publication, “*Social Security for All Men and Women - A source book for extending social security coverage in Vanuatu: options and plans*”, 2006 (ISBN 92-2-118352-1).

² The following experts provided comments on an earlier version of this report.
Kenichi Hirose, Social Protection Specialist, ILO Subregional Office for South-East Asia, Manila.
Kenneth Thompson, the ILO Project Specialist in Workers’ Compensation.

2. Description of the proposed Workers Compensation scheme

This summary is based on the Amended Draft Workers Compensation Bill 1999 incorporating the amendments set out in the above-mentioned report³.

2.1 Coverage

Employees in the private sector, government departments, statutory bodies and public and local authorities (including persons employed under contracts of service, the police and prison service, employees of cooperative societies, local employees of diplomatic missions and international organizations, domestic workers). Self-employed persons and persons employed by their spouses are not covered.

Workers are covered from the time they commence employment (hence records of contributions in respect of individual workers are not needed for workers' compensation benefits).

2.2 Contributions

Contributions are paid solely by employers based on workers' total monetary emoluments (i.e. on employers' payrolls). Contribution rates are set according to industry classes. Subsequently, contribution rates will be experience rated based on the actual experience of employers.

There is no ceiling on individual earnings on which contributions are paid and cash benefits calculated. In order to avoid excessive benefit payments, a ceiling on earnings to be taken into account for calculating benefits of, for example, five times average wages of contributors to the Vanuatu National Provident Fund (VNPF) in a selected month could be set.

Recommendation: A ceiling on the earnings of workers which are applied in the calculation of benefits should be set and reviewed at the time of each triennial actuarial valuation.

2.3 Definitions

Work accident means any event or series of events which result in an injury to a worker arising out of and in the course of the worker's employment. In the absence of evidence to the contrary, an accident arising in the course of a worker's employment is deemed to have arisen out of that employment. The draft legislation provides for the inclusion of *commuting accidents* (journey claims) as work accidents three years after the implementation of the WC scheme. Commuting accidents are injuries suffered by a worker on the way to or from work.

Recommendation: The first triennial actuarial valuation should take into account extension of the WC scheme to cover commuting accidents.

Occupational disease means a disease which is due to the nature of a worker's employment. Certain diseases which are recognized as occupational in nature will be identified in regulations to be promulgated.

Average monthly earnings of a worker are the sum of the worker's earnings over the six months immediately preceding the month of the injury divided by the number of these six months during which contributions were paid or payable.

Average daily earnings are one-thirtieth of average monthly earnings.

³ Details can be found in Annex 8 of the above ILO publication.

Temporary incapacity means a condition resulting from a work injury which requires medical treatment and renders the worker temporarily incapable of doing the work he/she was doing.

Permanent disablement means disablement of a permanent nature which reduces the earnings capacity of a worker in every employment which the worker was able to undertake at the time of the injury.

Permanent total disablement means that the worker is permanently incapable of performing all work.

The Second Schedule of the Act will define the degree of disablement for certain injuries.

2.4 Benefits

(i) Temporary incapacity benefits

Cash benefit equal to $\frac{2}{3}$ of the injured worker's average daily earnings. The benefit is payable from the second day following the day of the injury until recovery or assessment of permanent disablement. (The worker's employer is responsible for paying his/her wages for the day of the accident and the following day.)

(ii) Permanent disablement benefits

a) If the assessed extent of permanent disablement is 25 percent or more:

Disablement pension equal to $\frac{2}{3}$ of the worker's average monthly earnings times the assessed extent of permanent disablement. The pension is payable for life from the date of permanent disablement subject to periodic verification of the continuance of permanent disablement.

If the extent of permanent disablement assessed is 100 percent, a constant attendance allowance equal to 25 percent of the permanent disablement pension may be payable.

b) If the assessed extent of permanent disablement is less than 25 percent:

Lump sum equal to five years payments of $\frac{2}{3}$ of the worker's average monthly earnings times the assessed extent of permanent disablement.

(iii) Survivors benefits

Survivors pensions are payable to primary dependants and may be payable to secondary dependants in the event of the death of a worker due to an occupational injury or disease or the death of a disablement pensioner.

Primary dependents:

The *spouse* of the deceased worker; spouse includes persons who are married by civil ceremony, religious service or custom.

A *child* of the deceased worker who is under age 21 or thereafter so long as the child is incapable of supporting him/herself. Child includes a posthumous child, a dependent stepchild and an illegitimate child.

Secondary dependants:

Dependant parents, brothers and sisters provided the secondary beneficiary was maintained by the deceased person at the date of his/her death and is not ordinarily employed for more than 30 hours per week.

The **maximum amount** of all survivors' pensions payable in respect of the death of a worker due to a work injury is the permanent disablement pension for 100 percent disablement, i.e. $\frac{2}{3}$ of the

worker's average monthly earnings (adjusted for subsequent cost of living increments in the case of the death of a disablement pensioner).

a) Widow's survivor pension: 60 percent of the maximum amount payable for the life of the widow or until her remarriage or cohabitation provided at the time of her husband's death she was residing with him or maintained by him

b) Widower's survivor pension: 60 percent of the maximum amount payable for the life of the widower or until his remarriage or cohabitation provided at the time of his wife's death he was residing with her or maintained by her

c) Child pension: 20 percent (40 percent if neither parent is living) of the maximum amount payable until the child's age 21 (provided the child is unmarried and not gainfully employed for more than 30 hours per week), or for as long as the child is incapable of supporting him/herself due to incapacity.

The total survivors' pensions payable cannot exceed the maximum amount. If they do, the amounts of the pensions are reduced proportionately. If the pensions payable to primary dependants do not exceed the maximum amount, benefits may be payable to secondary dependents.

d) Funeral grant: This amount is paid to cover funeral and burial expenses. For the purpose of this actuarial valuation it is assumed that a funeral grant of 100,000 Vatu is payable.

Recommendation: The amount of the funeral grant should be reviewed at the time of each triennial actuarial valuation.

(iv) Medical care

Hospital outpatient or in-patient care, medicines, artificial limbs and rehabilitation are provided. In Vanuatu health care can be provided by a Government hospital, clinic, dispensary, health centre or nursing station or by other approved private medical providers. Overseas medical care may be provided. For the purpose of this actuarial valuation it is assumed that each case of overseas medical care is limited to a ceiling of 500,000 Vatu.

Recommendation: The ceiling on the cost of overseas medical care which the WC scheme will pay should reviewed at the time of each triennial actuarial valuation.

(v) Occupational safety and health and accident prevention measures

It is easily understandable that prevention is better than treatment and compensation. Minimizing employment injuries and occupational diseases through occupational safety and health measures is therefore a common objective by the government, employers and workers. In this sense, a workers' compensation scheme can play a role in supporting and encouraging accident prevention. A decrease in work accidents will in turn reduce the scheme expense and entail productivity improvement as a result of fewer work interruptions.

3. Covered population

Table 1 shows the approximate distribution of workers in wage and salaried employment in Vanuatu based on the National Statistical Office 2002 Yearbook and two sets of data provided by the VNPF. One set had the original coding of employers' activities and the other had data on contributors to the VNPF in the third quarter of 2005.

The services sector followed by retail and wholesale trade dominate employment in the formal sector in Vanuatu. Government employs nearly one-third of the employed labour force. Nearly two-thirds of the employed labour force are males.

Table1: Approximate distribution of employees and employers by industrial sector								
Sector				Employees		Employers		
				Number	% of total		Number	% of total
Establishments with 5 or more employees								
Agriculture, Forestry, Fishing				1000	5%		40	3%
Manufacturing				1300	7%		60	4%
Construction				1100	6%		40	3%
Wholesale/Retail Trade				2700	14%		150	10%
Hotels, Restaurants				2450	12%		100	6%
Transport, Communications				1300	7%		30	2%
Electricity, Gas, Water				200	1%		10	1%
Finance, Insurance				600	3%		20	1%
Real Estate, Business				650	3%		50	3%
Education				500	3%		50	3%
Community, Social Services				650	3%		30	2%
International bodies				100	1%		10	1%
Government				5700	29%		20	1%
Establishments with less than 5 employees				1750	9%		950	61%
Totals				20000			1560	

Notes:

- (i) The numbers in the table have been rounded.
- (ii) Government teachers are included under Government.
- (iii) Seasonal employees are excluded.

Table 2 is based on VNPF data on the number of employees of each registered employer in October 2005.

Table 2: Distribution of employees and employers by size of establishment

Range	Employees		Employers	
	Number		Number	% of total
1 employee	443		443	28%
2-4 employees	1813		957	33%
5-9 employees	1702		260	17%
10-14 employees	1336		114	7%
15-19 employees	1067		62	4%
20-24 employees	695		32	
25-29 employees	697		26	
30-34 employees	570		18	
35-39 employees	474		13	
40-44 employees	669		16	
45-49 employees	426		9	
50-99 employees	2297		32	
100+ employees	3850		23	
Government of Vanuatu	5377		1	
Totals	20973		1563	

Source

e: VNPF

Over 60% of employed persons are in establishments with less than 5 employees. This implies a heavy contribution collection and enforcement cost for the WC scheme (which the VNPF presumably already experiences). It should also be noted that it is smaller establishments which typically evade the employer liability provisions for workers compensation under the current legislation. Nearly half of the employers with less than 5 employees have only one employee who will most often be a domestic employee.

4. Financial system

4.1 Methods of financing WC benefits⁴

The principle of financing a WC scheme is to fund all benefits which are payable in respect of work accidents and occupational diseases which occur in a year by contributions made by employers in the year. Since contributions collected on an annual basis will cover all current and future costs related to claims occurring in the year ‘today’s employers pay the full cost of today’s claims’.

There are two types of benefits which are payable under a WC scheme:

- *Short-term benefits* which are normally payable for less than one year – medical care, temporary incapacity benefits, permanent disablement lump sums (where the level of disablement is less than 25 percent), and funeral grants.
- *Long-term benefits* which may be payable for the lifetime of beneficiaries –permanent disablement and survivors pensions.

In any year, contributions must be sufficient to pay the short-term benefits and lump sums, and to set up a fund to pay the long-term benefits arising from claims in the year.

(i) Short-term benefits

For short-term benefits, the average incidence (frequency) and the average severity (duration) of temporary incapacity claims normally varies little from year to year. Most temporary incapacity benefit payments terminate within one year, either due to recovery or assessment of permanent disablement. The benefit is directly related to the injured worker’s earnings, and the pay-as-you-go (PAYG) financial system is appropriate for financing temporary incapacity benefits. Under the PAYG system, the contribution rate is set at a level which will produce sufficient funds to pay the temporary incapacity benefits arising from work injuries in the year.

The PAYG financial system is also used to finance estimated costs of medical care, funeral grants and lump sum permanent disablement payments arising from injuries in a year.

(ii) Long-term benefits

In order to pay disablement and survivors pensions, the amounts of these pensions are capitalized and the present value of the pensions is paid from contributions in the year the injury or death gave rise to the pension. This financial system is referred to as “terminal funding” or “the assessment of constituent capitals”.

A Pensions Account should be set up into which capital values of permanent disablement and survivors pensions are transferred from the Workers Accident Compensation Fund, investment income is credited and from which pension benefits are paid. The operation of the Pensions Account is outlined in Annex 2. On the occasion of each triennial actuarial valuation, pensions being paid from the Pensions Account should be valued and the required amount in the Pensions Account should be adjusted by taking into account appropriate mortality and interest assumptions.

Investment of funds in the Pensions Account can be made for long terms.

4.2 Contingency Reserve

⁴ For details, see “Part III. The valuation of employment injury benefits” in the ILO-ISSA publication “Actuarial practice in social security”, 2002. (ISBN 92-2-110863-5)

While the average incidence of work injuries or deaths normally varies little from year to year, deviations from the average occur. In a relatively small scheme such as the WC scheme in Vanuatu these deviations can have significant financial implications. In order to avoid the financial impact of unusual and expected experience (excessive incidence of injuries and/or deaths), a Contingency Reserve should be set up. The purpose of the Contingency Reserve is to pay benefits in the event of adverse experience and thereby maintain the stability of the contribution rates to the scheme. The recommended level of Contingency Reserve is at least two years' expected expenditure on benefit payments.

Investment of funds in the Contingency Reserve should be made for short terms so that they can be readily liquidated to meet unexpected excess expenditure.

4.3 Setting contribution rates

There are two alternatives for setting employers' WC contribution rates:

- All employers pay the same contribution rate regardless of their industrial undertakings. Their contributions can subsequently be adjusted on the basis of experience rating.
- Employers can be classified into industry groups and pay contributions assessed for their respective risk groups in order to distribute the cost of WC claims among the industries responsible for the claims. Experience rating is subsequently applied.

Since employers are liable for such compensation they are required to finance WC schemes in almost all countries, but the question arises whether the employer premiums should be uniform, as in pensions, or risk-rated as in private insurance. The main argument for uniform rates is that in comprehensive schemes covering a wide range of employees for social security contingencies, the risks should be reasonably well balanced over time, and, furthermore, that risk-rating may not be a reliable indication of future experience and cannot easily be applied to smaller firms. The proponents of risk-rating contend that this system provides strong incentives for strengthening safety measures and accident prevention, and also avoids the price distortion which results from low-risk industries subsidising high-risk industries.

The proposed Vanuatu WC scheme is to be based on a system of industrial classifications. For the determination of contributions rates by industry, reference should be made to Chapter 6.

Recommendations:

- (1) Finance the WC scheme with contributions (a) to pay short-term WC benefits using the PAYG system and (b) to capitalize the long-term WC benefits (pensions).***
- (2) Set up a Pensions Account which receives capitalized values of pensions awarded from the Workers Accident Compensation Fund and investment income, and from which pensions are paid.***
- (3) Establish a Contingency Reserve of at least two years' expected benefit payments.***

5. Actuarial assumptions and estimates of the global contribution rate

In order to set contribution rates for industry classes it is necessary to estimate the incidence and severity of work injuries and occupational diseases in Vanuatu. As is usual in a new work injury scheme, there is virtually no national experience on which to base the rates. In any event, the existence of the work injury social insurance scheme will result in reporting of occupational injuries which previously were unreported or were not compensated.

The contribution rates to the proposed Vanuatu WC scheme are to be set by industry. To determine the contributions rates by industry classes, the following steps have been taken in this report. In the first place, a global contribution rate for the entire WC scheme has been estimated. Then estimates of rates for industry classes in Vanuatu are made by taking into account the ratios between contribution rates for various industry classes and the global contribution rate in the model countries.

5.1 Incidence of work injuries and deaths

The temporary incapacity benefit is payable from the second day following the day of the injury. This results in a one day delay (waiting period) before benefit payments commence. This waiting period means that there will be more claims than if a longer waiting period (e.g. two or three days) were applied. This also has implications for the cost of administering the WC scheme.

The following frequencies are assumed:

Temporary incapacity	4 cases per 100 workers
Permanent disablement	4 cases per 1,000 workers
Death	1 case per 10,000 workers

It is assumed that after one year of payments for temporary incapacity, a provisional assessment of permanent disablement is made.

5.2 Severity of work injuries

(i) Temporary incapacity

Temporary incapacity benefits are paid on the basis of 30 days a month (i.e. not on the basis of workdays). In general, approximately 40% of temporary incapacity benefits are payable for a week or less and 75% for less than two months. However, the longer-term temporary incapacity claims (which may end with an assessment of permanent disablement) result in a long average temporary incapacity benefit payment periods. It is assumed that the average duration of temporary incapacity benefits is seven weeks (49 days).

(ii) Permanent disablement

Permanent disablement results in a lump-sum payment if the degree of disablement is less than 25% and a pension if the degree of disablement is 25% or more. The following assumptions are made:

Degree of permanent disablement	Proportion of cases	Average degree assumed
less than 25%	85%	10%
25% or more	15%	40%

Permanent disablement pensioners are assumed to be males who begin to receive the pensions at age 40. The mortality of a disablement pensioner is assumed to be the Vanuatu population mortality of a person aged five years older.

(iii) Fatal cases

In case of death due to a work injury, an adult survivor pension is assumed to be payable for the life of the survivor. It is assumed that adult survivors are females who begin to receive the pension at age 35. It is assumed that each death due to a work injury gives rise to two orphan's pensions which are payable for an average of 7 years. The funeral grant is assumed to be 100,000 Vatu.

5.3 Capital values of disability and survivors pensions

Annex 2 provides annuity values for weekly disablement pensions and adult and child survivors pensions. These values have been calculated using the Vanuatu Office of Statistics life table based on the 1999 census and an interest rate of 3.5% per annum. The pensions must be periodically adjusted to maintain their real value against inflation, and investment earnings in excess of the assumed 3.5% will be used to finance these increases.

At the time a pension is awarded, the weekly amount is multiplied by the factor in the tables in Annex 2 which corresponds to the age of the pensioner and the amount is transferred Workers Accident Compensation Fund to the Pensions Account.

5.4 Medical care and rehabilitation

In the event of a work injury, hospital outpatient or in-patient care and medicines are to be provided, and eventually artificial limbs and rehabilitation as required. In Vanuatu health care services are provided by a Government hospital, clinic, dispensary, health centre or nursing station or by other approved private medical providers.

It is assumed that Government health providers will be paid for the cost of treating work injury cases, and that a 500,000 Vatu ceiling on the cost of overseas medical care will apply. Rehabilitation facilities will not be well-established at the start of the WC scheme. The amount which would otherwise be spent on rehabilitation should be allocated to constituting the Contingency Reserve.

Medical care is a major expense of work injury schemes, and it is assumed that the cost of medical care will be 45% of the estimated cost of temporary incapacity benefits.

5.5 Administration expenses

Administration expenses include contribution collection, claims management, general office and equipment overheads, and an allocation to finance activities promoting the prevention of work accidents and diseases.

While the administration expenses of the proposed WC scheme for Vanuatu will be lower than those for employers' liability commercial insurance coverage, compared to typical social insurance work injury schemes in countries similar to Vanuatu, the proposed Vanuatu scheme will be relatively expensive. This is due to the use of differential rates according to industry classes and the short waiting period before temporary incapacity claim payments commence.

It is assumed that administration expenses will be 20% of expected annual contribution income (which equals the expected benefit payments arising from claims in a year). The cost of collection of contributions and enforcement of compliance with the contribution conditions (which may be contracted to the VNPF) is estimated to be 2-3% of the contribution income, and this is included in the overall assumed administration expenses. It should be noted that this assumption does not intend to provide any target level of administrative expenses. If a scheme operates with good governance, its administrative costs can be reduced.

The proposed WC scheme will not have income to finance its start-up costs. The scheme should be entirely self-financing, and a loan from the Government or the VNPF could be contracted to finance the start-up costs. The loan would be at commercial rates and amortized over a period of ten or fifteen years⁵.

5.6 Other assumptions

(i) Density of contributions

Earnings-related benefits under the proposed WC scheme are based on an injured worker's average monthly earnings during the worker's months of employment in the six months preceding the work injury. Workers covered by the proposed WC scheme do not, on average, work all 12 months in a year. Hence, the average monthly earnings for determining benefits is higher than the average monthly earnings of workers over the entire year which is the basis for calculating the contribution rate. It is assumed that average monthly earnings in a year are 80% of average monthly earnings used for determining benefits.

(ii) Allocation to occupational safety and health and prevention activities

An allocation of 5% of estimated benefit payments is made.

(iii) Contingency reserve

A Contingency Reserve of at least two years expected annual benefit payments arising from claims in a year should gradually be built up. No specific charge is made to set up this reserve. It is expected that a surplus will result from the initial years of operation of the proposed WC scheme and this surplus should be allocated to constitute the Contingency Reserve.

5.7 Estimation of the global contribution rate

Applying the above-noted assumptions produces a net global contribution rate of 1.66%. The recommended contribution rate to the proposed Vanuatu WC scheme is 1.7% of employers' payrolls (i.e. 1.7 Vatu per 100 Vatu of payroll).

For an international comparison, Annex 4 presents contribution rates for work injury schemes in selected countries.

⁵ When the Fiji National Provident Fund was established in 1966, the start-up cost of the Fund was financed by a F\$10,000 loan from the Government. The Fund paid off the loan within one year of its implementation.

6. Contribution rates by industry classifications

6.1 Industrial classification

The purpose of a classification system is to classify employers into groups to facilitate setting fair and equitable contribution rates, and thereby ensure that the cost of WC claims is distributed fairly among the industries responsible for the claims. A classification system is based on the principle that the cost of producing a product or providing a service includes the cost of injuries or diseases incurred by the workers who are involved in these activities. Employers pay their contributions at the rates assigned to their respective industry classes.

Employers are classified according to the *type of industry in which they are engaged – not by the occupations of their employees*. The allocation is made to the classification which most accurately describes the activity of an employer, which is determined by the industry in which the employer's enterprise operates, the type of product or service provided and the processes and equipment used. The predominant activity of the workplace (the activity which contributes most to the value of goods or services produced or provided), not the occupations of individual workers or the perceived hazards of the workplace, determines the classification. The classification includes management, administration, marketing and sales and other functions which are associated with the predominant activity.

Employers are normally assigned to one classification unit, however if an enterprise is involved in more than one separate and distinct industrial activity (usually in different establishments), it may be assigned to more than one class.

It is necessary that the number of employees in a particular industrial classification be sufficiently large to adequately spread the risk and provide a basis for assessing the contribution rate of their employers. The larger the pool of risks (risk groups) the more stable is the claims experience, and hence a contribution rate for the pool can be set with greater certainty. Pooling risks together introduces cross-subsidization, a situation which is common to all classes of insurance where risk-rating is involved. This takes into account the interdependence of industry, since one worker's job depends on the jobs of other workers.

In Vanuatu most of the industry classes will be small, and it is necessary to group classes on the basis of the similarity of the industries and risk levels in order to provide an adequate basis for setting contribution rates.

After examining the *International Standard Industrial Classification of all Economic Activities* (ISIC), industrial classifications used by workers compensation schemes in New Zealand and in selected Australian States and Canadian Provinces, the *Australia New Zealand Standard Industrial Classification* (ANZSIC) has been adopted as benchmark for this actuarial valuation. Box 1 provides an overview of the ANZSIC system.

In the interest of administrative simplicity, it is desirable that the number of industrial classifications be kept as small as possible, particularly given the small size of the covered workforce in Vanuatu. On the other hand, it is desirable to include sufficient classes to limit the number of uncertain cases. Inevitably, it will not be possible to assign some employers to specific industrial classes. In this case, the initial contribution rate should be based on any relevant data available and judgement of the probable injury risk.

Annex 1 shows the industrial classifications which have been adopted to reflect the economy of Vanuatu. The classification comprises nearly 150 sub-industry groups some of which have specific classification units. For the proposed Vanuatu WC scheme, Wholesale and Retail Trade have been combined.

Box 1. Australia New Zealand Standard Industrial Classification (ANZSIC)

ANZSIC applies the following 17 industry divisions which identify large categories of employers who are involved in the same area of the economy at the broadest level.

- A - Agriculture, Forestry and Fishing
- B - Mining
- C - Manufacturing
- D - Electricity, Gas and Water Supply
- E - Construction
- F - Wholesale Trade
- G - Retail Trade
- H - Accommodation, Cafes and Restaurants
- I - Transport and Storage
- J - Communication Services
- K - Finance and Insurance
- L - Property and Business Services
- M- Government Administration and Defence
- N - Education
- O - Health and Community Services
- P - Cultural and Recreational Services
- Q - Personal and Other Services

The above 17 industry divisions are further broken down into:

- subdivisions (industry subdivisions) – two digit code
- groups (sub-industry groups) – three digit code
- classes (classification units) – four digit code

For example:

K	FINANCE AND INSURANCE
73	FINANCE
732	Deposit Taking Financiers
7321	Banks

Classes (classification units) are relatively homogeneous groups of employers who produce similar products or provide comparable services. The processes, inputs and equipment they use are generally similar, and they are often business competitors. Classification units are usually too small to yield credible statistical data on the claims experience of a classification unit.

A sub-industry group consists of a number of classification units which have similar claims experience. The classification units are combined in order to produce a risk group which is sufficiently large for the pooled claims experience of the group to be statistically credible for setting contribution rates. In Vanuatu, with the exception of the Government of Vanuatu, sub-industry groups will generally not be large enough on their own to yield statistically credible experience for setting contribution rates.

Industry subdivisions combine sub-industry groups within an industry. The claims experience of the industry subdivision is used to supplement the claims experience of the sub-industry groups.

ANZSIC has been revised in 1996 and 2006. Statistics New Zealand has published definitions of the classes which can be found in *Australian and New Zealand Standard Industrial Classification (New Zealand Use Version) 1996 Version 4.1*. (See <http://www.stats.govt.nz>)

Taking into account ratios between contribution rates for various industry classes and the global contribution rate in other schemes, contribution rates for industry classes in the proposed Vanuatu WC scheme are estimated. The results are presented in Annex 1. The weighted average of the industrial class contribution rate is approximately the 1.70% global contribution rate.

There are 12 different rates. The lowest is 0.35% (Finance and Insurance), and the highest is 9.50% (Logging, Demolition). A single rate (1.55%) is applied to the Government of Vanuatu.

Recommendation: Contribution rates for the WC scheme in Vanuatu should be those set out for the industry classes in Annex 1 of this report. The Industrial Classifications in Annex 1 should be included in Regulations pursuant to the Act establishing the Vanuatu Workers Compensation Scheme.

6.3 Experience rating

The contribution rates determined above reflect the average experience of all enterprises in each industrial class. Furthermore, there is another step, the merit or experience rating, to adjust the contribution rates of individual enterprises based on the performance of the individual enterprises or sub-classes.

A recent report of the ISSA Technical Commission⁶ contains information on trends in various countries to use risk and experience rating of contributions to influence employers to increase efforts to reduce accidents and risks of contracting occupational diseases. In June 2003, the International Labour Conference in its discussions of ILO's standards-related activities in the area of occupational safety and health and concluded that national OSH programmes should include certain key aspects including occupational injury and disease compensation and rehabilitation systems that use experience rating and incentives.

However, not all social security schemes in developing countries have the administrative capacity to maintain detailed records and assess the claims experience of each employer. In addition, without strong enforcement, experience rating can lead to under-reporting of the work accidents and occupational diseases.

At the next actuarial valuation the contribution rates and other parameters of the WC scheme can be adjusted on the basis of the experience of the scheme and a system of experience rating set up. The experience rating system will use an individual employer's contributions and claims experience and the claims experience of the employer's industry to calculate the contribution payable by the employer. As an example, Box 2 provides a description of the Japanese experience rated system.

Recommendation: A system of experience rating should be considered on the occasion of the actuarial valuation due three years after inception of the scheme.

⁶ Joachim Breuer, "Conditions for implementation of reform of a work injury scheme", ISSA Conference Towards sustainable social security systems, Limassol, Cyprus, November 2003.

Box 2. An experience-based premium adjustment system in the Workers' Accident Compensation Insurance of Japan

In Japan, the premium of the Workers' Accident Compensation Insurance is set by type of industry. Currently, the premium of workers' compensation varies from 0.5% to 12.9% in 51 industry categories. The premium is reviewed every 3 years based on the performance during the preceding 3-year period.

To provide employers with incentives for accident prevention, an experience-based system (called the merit system) is implemented. Under this system, the premium of an individual establishment can be adjusted upwards/downwards within the range of 40%. Those qualified for the merit system are medium and large sized enterprises (e.g. establishments with more than 100 workers, or construction projects whose value is more than JPY 120 million – about USD 1.1 million).

Specifically, for each establishment, the following “balance ratio” is computed:

Balance ratio = (benefit payment during the last 3 years) / (premium during the same period).

If this balance ratio is less than 0.75, then the premium (set by type of industry) is gradually reduced by up to 40%. However, if this ratio is more than 0.85, then the premium is increased by up to 40%. This adjustment is applied to the premium in respect of work-related benefits. (A uniform premium is applied in respect of the commuting accidents, welfare schemes and administrative costs.) The adjusted premium is applied for the next fiscal year (e.g. if the period of balance ratio is 2002-2004, then the adjusted premium is applied for 2006). Moreover, small and medium sized enterprises which take certain occupational safety and health measures can apply for the special merit system, which can adjust the premium within the range of 45%.

In practice, only a limited number of enterprises apply for the merit system. Statistics in 2002 show that 87,428 (or 4.4%) of 1,992,101 establishments applied for the merit system. Of these, 72,698 establishments (83.2%) had the premiums reduced, 12,949 (14.8%) had their premiums increased, and 1,781 (2.0%) had their premiums unchanged. In both cases where the premiums changed, about half attained the maximum adjustment rate of 40%.

7. Financial implications of the proposed WC scheme

7.1 Projected income and expenditure

In 2004, VNPF contribution income was 918,843,000 Vatu. During 2004 the VNPF contribution rate was 8% of earnings although some employers continued to contribute at the former 12% rate. Total earnings on which contributions were paid were thus approximately 10,000,000,000 Vatu. Assuming this is the total payroll of employers contributing to the proposed WC scheme, after rounding, the expected income and expenditure of the WC scheme are shown in Table 3.

Table 3. Estimated income and expenditure of the proposed WC scheme in Vanuatu

	Vatu
Contribution Income	170,000,000
Expenditure	
Temporary incapacity (including medical care)	68,000,000
Permanent disablement benefits	50,000,000
Survivors benefits	13,000,000
Administration expenses	33,000,000
Prevention activities	<u>6,000,000</u>
Total expenditure	170,000,000

7.2 Expected claims experience and reinsurance

The proposed WC scheme for Vanuatu will be a small scheme covering approximately 20,000 workers. The smaller a scheme is, the greater the potential variability in the claims experience. Adverse claims experience can result from an unusually large number of small claims or a small number of very large claims which could result, for example, from a catastrophic industrial accident. The possibility of a small number of very large claims is a major risk for a small scheme, especially during the period until the Contingency Reserve of the scheme has reached the desired level. Until this time the WC scheme could seek catastrophe reinsurance to cover benefit payments exceeding a specified amount, for example, 20 million Vatu, as a result of a single industrial accident.

Recommendation: The WC scheme should investigate the availability and cost of obtaining catastrophe reinsurance cover, at least during the period until the Contingency Reserve reaches its desired level.

8. Summary of recommendations

The recommendations made in this actuarial report are summarised as follows.

1. Actuarial valuations of the WC scheme should be undertaken triennially.
2. A ceiling on the earnings of workers which are applied in the calculation of benefits should be set (an indicative monthly figure is five times average wages) and reviewed at the time of each triennial actuarial valuation.
3. The first triennial actuarial valuation should take into account extension of the WC scheme to cover commuting accidents.
4. The amount of the funeral grant, initially set at 100,000 Vatu, should be reviewed at the time of each triennial actuarial valuation.
5. The ceiling on the cost of overseas medical care which the WC scheme will pay should be reviewed at the time of each triennial actuarial valuation.
6. Financial system:
 - (1) Finance the WC scheme with contributions (a) to pay short-term WC benefits using the PAYG system and (b) to capitalize the long-term WC benefits (pensions).
 - (2) Set up a Pensions Account which receives capitalized values of pensions awarded from the Workers Accident Compensation Fund and investment income, and from which pensions are paid.
 - (3) Establish a Contingency Reserve of at least two years' expected benefit payments.
7. Contribution rates for the WC scheme in Vanuatu should be those set out for the industry classes in Annex 1 of this report. The Industrial Classifications in Annex 1 should be included in Regulations pursuant to the Act establishing the Vanuatu Workers Compensation Scheme.
8. A system of experience rating should be considered on the occasion of the actuarial valuation due three years after inception of the scheme.
9. The WC scheme should investigate the availability and cost of obtaining catastrophe reinsurance cover, at least during the period until the Contingency Reserve reaches its desired level.

The ILO stands ready to provide the Government, VNPF and other social partners with further technical assistance in the implementation of the above recommendations.

Annex 1. Estimated contribution rates of the proposed WC scheme in Vanuatu by industry classifications

This Annex presents the estimated contribution rates of the proposed WC scheme in Vanuatu. The following remarks are necessary.

- Industry classification is based on the Australian and New Zealand Standard Industrial Classification (ANZSIC). Code is based on the four digit ANZSIC code.
- The contribution rates are presented in terms of per 100 Vatu of payroll.
- Where 'repair' or 'installation' does not appear, the 'manufacturing' rate applies.
- n.e.c. means 'not elsewhere classified'.

CODE	INDUSTRY CLASSIFICATION	CONTRIBUTION RATE (per 100 Vatu)
A	AGRICULTURE, FORESTRY AND FISHING	
O1	AGRICULTURE	
O11	Horticulture and Fruit Growing	2.60
O12	Grain, Sheep and Beef Cattle Farming	
	O121 Grain Growing	2.60
	O122 Grain-Sheep and Grain-Beef Cattle Farming	4.50
	O123 Sheep/Beef Cattle Farming	5.40
O13	Dairy Cattle Farming	3.25
O14	Poultry Farming	
	O141 Poultry Farming (Meat)	3.25
	O142 Poultry Farming (Eggs)	2.60
O15	Other Livestock Farming	
	O151 Pig Farming	3.25
	O152 Horse Farming	5.40
	O159 Livestock Farming n.e.c.	4.50
O16	Other Crop Growing (including plantations)	2.60
O2	SERVICES TO AGRICULTURE	
O21	Services to Agriculture	
	O211 Cotton Ginning	2.60
	O212 Shearing Services	5.40
	O219 Services to Agriculture n.e.c.	5.40
O3	FORESTRY AND LOGGING	
O30	Forestry and Logging	
	O301 Forestry	2.60
	O302 Logging	9.50
	O303 Services to Forestry	2.60
O4	COMMERCIAL FISHING	
O41	Marine Fishing	3.25
O42	Aquaculture	1.90
B	MINING	
13	METAL ORE MINING	3.95
14	OTHER MINING	3.25
	O141 Construction Material Mining (Gravel, Sand Quarrying)	3.25

15	SERVICES TO MINING	
151	Exploration	5.40
152	Other Mining Services (including drilling, boring)	5.40
 C	 MANUFACTURING AND PROCESSING	
 21	 FOOD, BEVERAGE AND TOBACCO MANUFACTURING	
211	Meat and Meat Product Manufacturing	
	2111 Meat Processing	5.40
	2112 Poultry Processing	5.40
	2113 Bacon, Ham and Smallgoods Manufacturing	5.40
212	Dairy Product Manufacturing	2.60
213	Fruit and Vegetable Processing	3.95
214	Oil and Fat Manufacturing	1.90
215	Flour Mill and Cereal Food Manufacturing	2.60
216	Bakery Product Manufacturing	3.25
217	Other Food Manufacturing	3.25
218	Beverage and Malt Manufacturing	1.90
219	Tobacco Product Manufacturing	3.25
 22	 TEXTILE, CLOTHING, FOOTWEAR AND LEATHER MANUFACTURING	
221	Textile Fibre, Yarn and Woven Fabric Manufacturing	
	2211 Wool Scouring	3.25
	2212 Synthetic Fibre Textile Manufacturing	1.90
	2213 Cotton Textile Manufacturing	1.90
	2214 Wool Textile Manufacturing	2.60
	2215 Textile Finishing	1.90
222	Textile Product Manufacturing	
	2221 Made-up Textile Product Manufacturing	1.90
	2222 Textile Floor Covering Manufacturing	1.90
	2223 Rope, Cordage and Twine Manufacturing	1.90
	2229 Textile Product Manufacturing n.e.c.	2.60
223	Knitting Mills	
	2231 Hosiery Manufacturing	1.90
	2232 Cardigan and Pullover Manufacturing	1.90
224	Clothing Manufacturing	
	2241 Men's and Boy's Wear Manufacturing	1.55
	2242 Women's and Girl's Wear Manufacturing	1.55
	2243 Sleepwear, Underwear and Infant Clothing Manufacture	1.55
	2249 Clothing Manufacture n.e.c.	1.55
225	Footwear Manufacturing	1.55
226	Leather and Leather Product Manufacturing	
	2261 Leather Tanning	5.40
	2262 Leather and Leather Substitute Product Manufacturing	3.25
 23	 WOOD AND PAPER PRODUCT MANUFACTURING	
231	Log Sawmilling and Timber Dressing	
	2311 Log Sawmilling	5.40
	2312 Wood Chipping	2.60
	2313 Timber Resawing and Dressing	4.50
232	Other Wood Product Manufacturing	

	2321	Plywood and Veneer Manufacturing	4.50
	2322	Fabricated Wood Manufacturing	2.60
	2323	Wooden Structural Component Manufacturing	3.25
	2329	Wood Product Manufacturing n.e.c.	3.25
233		Paper and Paper Product Manufacturing	
	2331	Pulp, Paper and Paperboard Manufacturing	2.60
	2332	Solid Paperboard Container Manufacturing	2.60
	2333	Corrugated Paperboard Container Manufacturing	2.60
	2334	Paper Bag and Sack Manufacturing	2.60
	2339	Paper Product Manufacturing n.e.c.	2.60
24		PRINTING, PUBLISHING AND RECORDED MEDIA	
241		Printing and Services to Printing	
	2411	Paper Stationery Manufacturing	1.55
	2412	Printing	1.20
	2413	Services to Printing	1.20
242		Publishing	
	2421	Newspaper Printing or Publishing	0.75
	2422	Other Periodical Publishing	0.75
	2423	Book and Other Publishing	0.75
243		Recorded Media Manufacturing and Publishing	0.75
25		PETROLEUM, COAL, CHEMICAL AND ASSOCIATED PRODUCT MANUFACTURING	
251		Petroleum Refining	1.20
252		Petroleum and Coal Product Manufacturing n.e.c.	2.60
253		Basic Chemical Manufacturing	
	2531	Fertiliser Manufacturing	1.90
	2532	Industrial Gas Manufacturing	1.90
	2533	Synthetic Resin Manufacturing	1.90
	2534	Organic Industrial Chemical Manufacturing n.e.c	1.90
	2535	Inorganic Industrial Chemical Manufacturing n.e.c.	1.90
254		Other Chemical Product Manufacturing	
	2542	Paint Manufacturing	1.90
	2543	Medicinal/Pharmaceutical Product Manufacturing	1.90
	2544	Pesticide Manufacturing	1.90
	2545	Soap and Other Detergent Manufacturing	1.90
	2546	Cosmetic and Toiletry Preparation Manufacturing	1.90
	2549	Chemical Product Manufacturing n.e.c.	1.90
255		Rubber Product Manufacturing	3.95
256		Plastic Product Manufacturing	
	2561	Plastic Blow Moulded Product Manufacturing	2.60
	2562	Plastic Extruded Product Manufacturing	2.60
	2563	Plastic Bag and Film Manufacturing	2.60
	2564	Plastic Product Rigid Fibre Reinforced Manufacturing	2.60
	2565	Plastic Foam Product Manufacturing	2.60
	2566	Plastic Injection Moulded Product Manufacturing	2.60
26		NON-METALLIC MINERAL PRODUCT MANUFACTURING	
261		Glass and Glass Product Manufacturing	3.25
262		Ceramic Product Manufacturing	
	2621	Clay Brick Manufacturing	3.25
	2622	Ceramic Product Manufacturing	3.25
	2623	Ceramic Tile and Pipe Manufacturing	3.25

	2629	Ceramic Product Manufacturing n.e.c.	3.25
263		Cement, Lime, Plaster and Concrete Product Manufacturing	
	2631	Cement and Lime Manufacturing	2.60
	2632	Plaster Product Manufacturing	2.60
	2633	Concrete Slurry Manufacturing	2.60
	2634	Concrete Pipe and Box Culvert Manufacturing	3.95
	2635	Concrete Product Manufacturing n.e.c.	3.95
264		Non-Metallic Mineral Product Manufacturing n.e.c.	5.40
27		METAL PRODUCT MANUFACTURING	
271		Iron and Steel Manufacturing	3.25
	2711	Basic Iron and Steel Manufacturing	3.25
	2712	Iron and Steel Casting and Forging	3.25
	2713	Steel Pipe and Tube Manufacturing	3.25
273		Non-Ferrous Metal Product Manufacturing	3.25
		(Rolling, Drawing, Extruding)	
274		Structural Metal Product Manufacturing	3.25
275		Sheet Metal Product Manufacturing	3.25
276		Fabricated Metal Product Manufacturing	
	2761	Hand Tool and General Hardware Manufacturing	3.25
	2762	Spring and Wire Product Manufacturing	3.25
	2763	Nut, Bolt, Screw and Rivet Manufacturing	3.25
	2764	Metal Coating and Finishing	3.25
	2765	Non-Ferrous Pipe Fitting Manufacturing	3.25
28		MACHINERY AND EQUIPMENT MANUFACTURING	
281		Motor Vehicle and Part Manufacturing	
	2812	Motor Vehicle Body Manufacturing	2.60
	2819	Automotive Component Manufacturing n.e.c.	2.60
282		Other Transport Equipment Manufacturing	
	2821	Ship building	3.25
	2822	Boat building	3.25
	2829	Transport Equipment Manufacturing n.e.c.	
283		Photographic and Scientific Equipment Manufacturing	0.75
284		Electronic Equipment Manufacturing	0.75
285		Electrical Equipment and Appliance Manufacturing	1.20
286		Industrial Machinery and Equipment Manufacturing	
	2861	Agricultural Machinery Manufacturing	2.60
	2863	Food Processing Machinery Manufacturing	2.60
	2869	Industrial Machinery/Equipment Manufacturing n.e.c.	2.60
29		OTHER MANUFACTURING	
291		Prefabricated Building Manufacturing	3.95
292		Furniture Manufacturing	
	2921	Wooden Furniture/Upholstered Seat Manufacturing	2.60
	2922	Sheet Metal Furniture Manufacturing	2.60
294		Other Manufacturing	
	2941	Jewellery and Silverware Manufacturing	1.55
	2942	Toy and Sporting Good Manufacturing	2.60
	2949	Manufacturing n.e.c.	2.60

D ELECTRICITY, GAS AND WATER SUPPLY**36 ELECTRICITY AND GAS SUPPLY**

361	Electricity Supply	1.20
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362	Gas Supply	1.55
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37	WATER SUPPLY, SEWERAGE AND DRAINAGE SERVICES	1.55
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E CONSTRUCTION**41 GENERAL CONSTRUCTION****411 Building Construction**

4111	House Construction	3.25
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4112	Residential Building Construction n.e.c.	3.25
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4113	Non-Residential Building Construction	3.25
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412 Non-Building Construction

4121	Road and Bridge Construction	3.25
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4122	Harbour and River Works	3.25
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4122	Sewerage and Reticulation Works	3.95
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4122	Blasting and Diving	4.50
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4122	Power and Telecommunications Infrastructure	1.90
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4122	Non-Building Construction n.e.c.	3.25
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42 CONSTRUCTION TRADE SERVICES**421 Site Preparation Services**

4210	Site Preparation Services	3.25
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4210	Demolition	9.50
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422 Building Structure Services

4221	Concreting	5.40
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4222	Bricklaying	5.40
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4223	Roofing	5.40
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4224	Structural Steel Erection	5.40
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423 Installation Trade Services

4231	Plumbing Services	3.25
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4232	Electrical Services	1.90
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4233	Air Conditioning Services	1.90
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4234	Fire and Security System Services	1.90
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424 Building Completion Services

4241	Plastering and Ceiling Services	5.40
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4242	Carpentry Services	5.98
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4243	Tiling, Slate, Mosaic and Terrazzo Laying	3.95
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4243	Other Floor Finishing Services	2.60
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4244	Painting and Decorating Services	4.50
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4245	Glazing Services	2.60
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425 Other Construction Services

4251	Landscaping Services	3.25
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4259	Construction Services n.e.c.	4.04
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F/G WHOLESALE/RETAIL TRADE**51 FOOD**

5110	Supermarket and Grocery Stores	1.90
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512 Specialised Food

5121	Fresh Meat, Fish and Poultry	3.25
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	5122	Fruit and Vegetable	1.90
	5123	Liquor	1.90
	5124	Bread and Cake	1.90
	5125	Takeaway Food	1.90
	5126	Milk Vending	1.90
	5129	Specialised Food n.e.c.	1.90
52	PERSONAL AND HOUSEHOLD GOODS		
521	Department Stores		1.55
522	Clothing and Soft Goods		
	5221	Clothing	0.75
	5222	Footwear	0.75
	5223	Fabric and Other Soft Goods	0.75
523	Furniture, Houseware and Appliance		
	5231	Furniture	1.20
	5232	Floor Covering	1.20
	5233	Domestic Hardware and Houseware	1.20
	5234	Domestic Appliance	1.20
	5235	Recorded Music	0.75
524	Recreational Goods		
	5241	Sport and Camping Equipment	1.20
	5242	Toy and Game	1.20
	5243	Newspaper, Book and Stationery	0.75
	5244	Photographic Equipment	0.75
	5245	Marine Equipment	1.55
525	Other Personal and Household Goods		
	5251	Pharmaceutical, Cosmetic and Toiletry	0.75
	5252	Antique and Used Goods	1.20
	5253	Garden Equipment	2.60
	5254	Flowers	0.75
	5255	Watch and Jewellery	0.75
	5259	Firewood Dealers	9.50
	5259	Wholesaling/Retailing n.e.c.	1.20
526	Household Equipment Repair Services		
	5261	Household Equipment Repair Services (Electrical)	0.80
	5269	Mower Repairs/Metal Blade Sharpening Services	2.60
	5269	Household Equipment Repair Services n.e.c.	0.80
53	MOTOR VEHICLE RETAILING AND SERVICE		
531	Motor Vehicle Retailing		
	5311	Car Retailing (including parts and service)	0.75
	5312	Motor Cycle Dealing	0.75
	5313	Trailer and Caravan Dealing	0.75
532	Motor Vehicle Services		
	5321	Automotive Fuel	1.55
	5322	Automotive Electrical Services	1.55
	5323	Smash Repairs	1.90
	5324	Tyres	1.90
	5329	Automotive Repair and Services n.e.c.	1.55
H	ACCOMMODATION, CAFES AND RESTAURANTS		
57	ACCOMMODATION, CAFES AND RESTAURANTS		

571	Accommodation	1.90
572	Taverns and Bars	1.55
573	Cafes and Restaurants	1.55

I TRANSPORT AND STORAGE

61	ROAD TRANSPORT	
611	Road Freight Transport	5.40
612	Road Passenger Transport	
6122	Short Distance Bus Transport	3.25
6123	Taxi and Other Road Passenger Transport	2.60
63	WATER TRANSPORT	2.60
64	AIR TRANSPORT	
640	Air Transport	
6401	Scheduled International Air Transport	1.20
6402	Scheduled Domestic Air Transport	1.55
6403	Non-Scheduled Air Transport	3.25
65	OTHER TRANSPORT	
650	Other Transport	
6501	Pipeline Transport	5.40
6509	Transport n.e.c.	3.25
66	SERVICES TO TRANSPORT	
661	Services to Road Transport	
6611	Parking Services	0.75
6619	Services to Road Transport n.e.c.	1.90
662	Services to Water Transport	
6621	Stevedoring	5.40
6622	Water Transport Terminals	1.90
6623	Port Operators	1.20
6629	Services to Water Transport n.e.c.	1.20
663	Services to Air Transport	
6630	Services to Air Transport	1.20
664	Other Services to Transport	
6641	Travel Agency Services	0.35
6642	Road Freight Forwarding	3.25
6643	Freight Forwarding (Except Road)	3.25
6644	Customs Agency Services	0.55
6649	Services to Transport n.e.c.	1.20
67	STORAGE	
670	Storage	
6701	Grain Storage	3.25
6709	Storage n.e.c.	1.94

J COMMUNICATION SERVICES

71	COMMUNICATION SERVICES	
711	Postal and Courier Services	
7111	Postal Collection/Delivery Services	2.60
7112	Courier Services	2.60

712	Telecommunication Services	0.55
K	FINANCE AND INSURANCE	
73	FINANCE	
731	Central Bank	0.35
732	Deposit Taking Financiers	0.35
	7321 Banks	0.35
	7322 Building Societies	0.35
	7323 Credit Unions	0.35
	7324 Money Market Dealers	0.35
	7329 Deposit Taking Financiers n.e.c.	0.35
733	Other Financiers	0.35
734	Financial Asset Investors	0.35
74	INSURANCE	
741	Life Insurance and Superannuation Funds	0.35
742	Other Insurance	0.35
75	SERVICES TO FINANCE AND INSURANCE	0.35
L	PROPERTY AND BUSINESS SERVICES	
77	PROPERTY SERVICES	
771	Residential/Commercial Property Operators and Developers	1.20
772	Real Estate Agents	0.35
773	Non-Financial Asset Investors	0.35
774	Machinery and Equipment Hiring and Leasing	
	7741 Motor Vehicle Hiring	1.90
	7742 Other Transport Equipment Leasing	1.90
	7743 Vending and Weighing Machine Hiring or Leasing	0.75
	7743 Other Plant Hiring or Leasing	3.25
78	BUSINESS SERVICES	
781	Scientific Research	0.75
782	Technical Services	
	7821 Architectural Services	0.35
	7822 Surveying Services	1.20
	7823 Consulting Engineering Services	0.35
	7829 Technical Services n.e.c.	0.75
783	Computer Services	
	7831 Data Processing Services	0.35
	7832 Information Storage and Retrieval Services	0.35
	7833 Computer Maintenance Services	0.75
	7834 Computer Consultancy Services	0.35
784	Legal and Accounting Services	0.35
785	Marketing and Business Management Services	0.35
786	Other Business Services	
	7861 Group Training Organisation	0.75
	7862 Contract Staff Services (Commercial)	0.75
	7863 Secretarial Services	0.55
	7854 Security and Investigative Services (Except Police)	1.90

7865	Pest Control Services	3.25
7866	Cleaning Services	3.25
7869	Business Services n.e.c.	0.55

M GOVERNMENT ADMINISTRATION AND DEFENCE

81 GOVERNMENT ADMINISTRATION

811 Government Administration

8111	Central Government Administration	1.55
8113	Local Government Administration	1.90

813 Foreign Government Representation (local staff) 0.35

82 DEFENCE (Civilian Personnel) 1.90

N EDUCATION

84 EDUCATION

841 Preschool Education 0.55

842 Primary/Secondary/Special School Education 0.55

843 Post School Education (Higher/Technical/Further) 0.55

844 Other Education 0.55

O HEALTH AND COMMUNITY SERVICES

86 HEALTH SERVICES

861 Hospitals and Nursing Homes

8611	Hospitals/Clinics	1.20
8613	Nursing Homes	3.25

862 Medical and Dental Services 0.35

863 Other Health Services

8631	Pathology Services	0.55
8632	Optometry and Optical Dispensing	0.35
8633	Ambulance Services	1.90
8634	Community Health Centres	1.90
8635	Physiotherapy Services	0.35
8636	Chiropractic Services	0.35
8639	Health Services n.e.c.	0.35

864 Veterinary Services 0.75

87 COMMUNITY SERVICES

871 Child Care Services 0.55

872 Community Care Services 2.60

P CULTURAL AND RECREATIONAL SERVICES

91 MOTION PICTURE, RADIO AND TELEVISION SERVICES

911 Film and Video Services

9111	Film and Video Production	1.20
9112	Film and Video Distribution	0.55

	9113	Motion Picture Exhibition	1.20
912		Radio and Television Services	0.35
92		LIBRARIES, MUSEUMS AND THE ARTS	
921		Libraries	0.35
922		Museums	1.20
923		Parks and Gardens	
	9231	Zoological and Botanic Gardens	3.95
	9239	Recreational Parks and Gardens	1.90
924		Arts (Music, Theatre, Creative Arts)	1.20
925		Services to the Arts (Recording Studios, Performing Venues)	1.20
93		SPORT AND RECREATION	
931		Sport	
	9311	Horse Racing	3.25
	9312	Sports Grounds and Facilities n.e.c.	1.55
	9319	Riding School Operation	3.95
	9319	Sports and Services to Sports n.e.c.	1.55
932		Gambling	
	9321	Lotteries	0.55
	9322	Casinos	1.20
	9329	Gambling Services n.e.c.	0.55
933		Other Recreation Services	2.60
Q		PERSONAL AND OTHER SERVICES	
95		PERSONAL SERVICES	
951		Personal and Household Goods Hiring	
	9511	Video Hire Outlet	0.55
	9519	Personal and Household Goods Hiring n.e.c.	1.20
952		Other Personal Services	
	9521	Commercial Laundries	3.25
	9521	Laundrettes and Dry-Cleaners	1.55
	9522	Photographic Film Processing	0.55
	9523	Photographic Studios	0.55
	9524	Funeral Directors, Crematoria and Cemeteries	1.90
	9525	Tree Lopping	5.40
	9525	Other Gardening Services	2.60
	9526	Hairdressing and Beauty Salons	0.55
	9529	Personal Services n.e.c.	0.55
96		OTHER SERVICES	
961		Religious Organisations	
	9610	Religious Organisations	0.75
962		Interest Groups	
	9621	Business and Professional Associations	0.35
	9622	Labour Associations	0.35
	9629	Interest Groups n.e.c.	0.46
963		Public Order and Safety Services	
	9632	Corrective Services	2.60
	9633	Fire Brigade Services	1.90
	9634	Waste Disposal Services	4.04
970		Private Households Employing Domestic Staff	1.20

Annex 2. Capital values of permanent disablement and survivors pensions

The total cost of benefits in each year is to be covered by the contributions received in the year. When a disablement or a survivors pension is awarded, the present value of the total cost (capital value or annuity value) of all future pension payments is charged to the WC fund in the year the pension is awarded.

The WC Pensions Account is credited with the capital values of disablement and survivors pensions which are transferred from the Workers Accident Compensation Fund at the times the pensions are awarded, and periodic pension payments are made from the Pensions Account. The Pensions Account is credited with investment income annually.

The capital values of permanent disablement and survivors pensions are in the tables in this Annex. The amount required in the Pensions Account and the assumptions on which the tables are based are reviewed at each actuarial valuation. The following examples illustrate the operation of the Pensions Account.

Example 1.

A worker age 45 is disabled as a result of a work injury. The worker's extent of permanent disablement is assessed at 50% and the worker's average weekly earnings are 9,000 Vatu. From the table of Disablement Pension Factors, the capital value of the pension is:

Beneficiary	Weekly pension amount (Vatu) (1)	Factor (2)	Capital value (Vatu) (1) X (2)
Disabled worker (age 45)	3,000	817	2,451,000

The capital value (Vatu 2,451,000) is transferred from the Workers Accident Compensation Fund to Pensions Account at the time the disablement pension is awarded, and monthly disablement pensions are paid from the Pensions Account.

Example 2.

A worker dies as a result of a work injury leaving a widow age 35 and two orphans, one age 15 and one age 7. The worker's average weekly earnings were 7,500 Vatu. The widow's monthly pension for life or until her remarriage or cohabitation is then 3,000 Vatu. Each orphan receives a monthly pension of 1,000 Vatu until age 21 (subject to marriage and employment conditions), and thereafter if the child is incapacitated. From the table of Survivor Pension Factors, the total of the capital values of the pensions is:

Beneficiary	Weekly pension amount (Vatu) (1)	Factor (2)	Capital value (Vatu) (1) X (2)
Widow (age 35)	3,000	1121	3,363,000
Orphan (age 15)	1,000	261	261,000
Orphan (age 7)	1,000	562	<u>562,000</u>
			4,186,000

The total capital value (Vatu 4,186,000) is transferred from the Workers Accident Compensation Fund to the Pensions Account at the time the survivors pensions are awarded, and monthly disablement pensions are paid from the Pensions Account.

DISABLEMENT PENSION FACTORS

Capital cost of disablement pension = Amount of weekly pension X Factor

Age	Factor
20 or less	1180
21	1169
22	1159
23	1148
24	1137
25	1125
26	1113
27	1101
28	1088
29	1075
30	1061
31	1048
32	1034
33	1019
34	1004
35	989
36	973
37	957
38	941
39	924
40	907
41	890
42	872
43	854
44	835
45	817
46	798
47	780
48	760
49	740
50	720
51	701
52	681
53	661
54	639
55	619
56	599
57	579
58	558
59	537
60	516
61	496
62	476
63	455
64	433
65	412

Interest rate 3.5% per annum. Mortality based on life table from 1999 Vanuatu population census.
Male mortality adjusted 5 years upwards.

SURVIVOR PENSION FACTORS

Capital cost of survivor pension = Amount of weekly pension X Factor

ADULT SURVIVORS

Age	Factor
20 or less	1271
21	1263
22	1255
23	1247
24	1238
25	1229
26	1220
27	1210
28	1200
29	1190
30	1179
31	1168
32	1157
33	1146
34	1134
35	1121
36	1109
37	1096
38	1083
39	1069
40	1055
41	1040
42	1025
43	1010
44	994
45	978
46	962
47	945
48	928
49	910
50	892
51	873
52	855
53	835
54	815
55	795
56	775
57	754
58	732
59	710
60	688
61	667
62	644
63	621
64	596
65	573

CHILD SURVIVORS

Age	Factor
0	766
1	740
2	713
3	685
4	656
5	625
6	594
7	562
8	529
9	494
10	459
11	422
12	384
13	344
14	303
15	261
16	217
17	172
18	125
19	76
20	26

Interest rate 3.5% per annum.
Mortality based on life table from 1999
Vanuatu population census.
Female mortality for adult survivors.

Annex 3. Industry classification systems

Australia New Zealand Standard Industrial Classification (ANZSIC) codes (1993)

ANZSIC has the following hierarchy of industries:

- divisions (17 - alphabetic code)
- subdivisions (two digit code)
- groups (three digit code)
- classes (four digit code)

Queensland, Australia: WorkCover (2005-06)

(average covered workforce – 1,836,600 in 2004-05)

17 industry divisions (based on ANZSIC standard)

148 (approx.) industry groups

560 (approx.) WorkCover industry classifications (WICs)

New Zealand: Accident Compensation Corporation (ACC) (2005-06)

17 Industry divisions

56 Industry risk groups

129 Sub-industry risk groups

554 Classification units (CUs)

British Colombia, Canada: WorkSafeBC (2005)

(approximately 179,000 employers in 2006)

7 Sectors

24 Subsectors

619 Classification units

Ontario, Canada: Workplace Safety & Insurance Board (WSIB) (2005)

9 Classes

157 Rate groups

800+ Classification units

Annex 4. Contribution rates of employment injury schemes in selected countries

The Annex shows average contribution rates of work accident and occupational disease schemes in selected countries. The rates are expressed per 100 units of payroll.

Differences in rates in the following table are in part attributable to differences in design, practice and compensation levels in the schemes.

	2002/03 rate (1)	2004/05 rate (2)	2005/06 rate
Australia Average	2.35		
NSW	2.75	2.57	
NT	2.41		
QLD	1.39	1.55	1.43
SA	2.26	3.00	
VIC	2.48	1.99	
WA	2.20	2.25	
New Zealand	0.88	0.91	0.88
(Employers levy for new claims)			
Canada Average	2.06	2.13 (3)	
British Columbia		2.059	1.975
Ontario (3)		2.19	2.19
Alberta		1.98	1.83

Sources:

(1) Briefing to the Incoming Minister for ACC - October 2005

(2) WorkCover (27 April 2005 News)

(3) Key Statistical Measures for 2004, Association of Workers' Compensation Boards of Canada