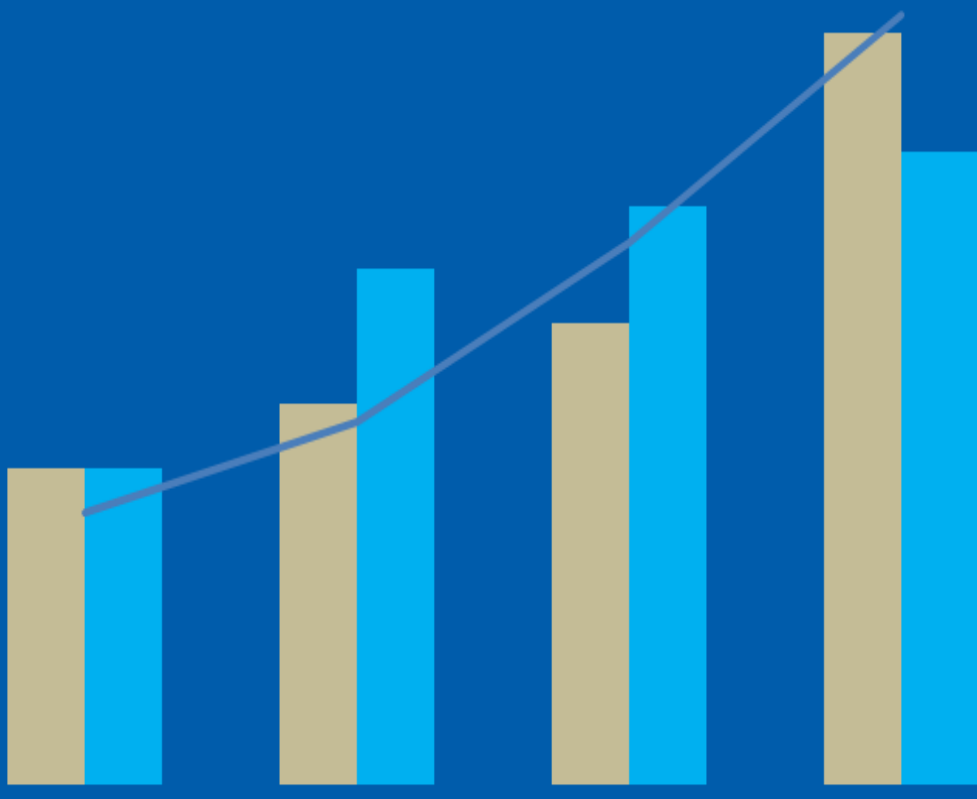
Republic of Rwanda

NATIONAL INSTITUTE OF STATISTICS OF RWANDA

LABOUR STATISTICS METADATA HANDBOOK



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LABOUR STATISTICS METADATA HANDBOOK OF RWANDA

MAY 2014

Additional information about the Labour Statistics metadata handbook of Rwanda may be obtained from the NISR:

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Recommended citation:

National Institute of Statistics of Rwanda (NISR), Ministry of Finance and Economic Planning (MINECOFIN) [Rwanda], Labour Statistics metadata handbook of Rwanda

Foreword

Labour statistics play an essential role in the efforts of the country to achieve decent work for all. These statistics are needed for the development and evaluation of policies towards this goal and for assessing progress towards decent work. In the same context, Rwanda is committed to achieve its overarching objective set in vision 2020; transforming Rwanda into a middle income country. Guided by this vision, the Second Economic Development and Poverty Reduction Strategy (EDPRS 2) set out target of creating 200,000 off-farm jobs annually to speed up employment growth. At the same time, the country continues to make great progress towards achieving the Millennium Development Goals (MDGs).

To monitor progress towards these goals and targets, relevant, reliable, coherent, timely and accessible labour statistics have to be produced. Considering the complexity of labour market, a Labour Statistics Framework has been developed and documented by the National Institute of Statistics of Rwanda (NISR) to ensure the coordination of all activities related to data collection, data analysis, and dissemination of labour statistics in harmony with international standards. In addition to that, a metadata handbook that describes the indicators related to labour statistics has also been developed.

We at NISR expect that this framework and related metadata handbook will ensure the production of labour statistics across the National Statistical System (NSS) which in return improves the evidence based policy formulation and decision making.

I would like to thank Doctor Abimbola Sylvester Young, the former Director of Statistics Department in ILO, different stakeholders and NISR team who contributed towards the realization of these documents. Finally, I highly encourage all key stakeholders to make full use of the framework and related metadata handbook to enhance the quality of labour statistics in Rwanda.

Yusuf MURANGWA
Director General, NISR

Contents

Chapter 1: Introduction

1.1 Types of indicators covered

The indicators in the Handbook are statistical and those required describing and assessing phenomena relevant to labour covering the population of persons, establishments and jobs or substantial subsets of them such as women, establishments in critical sectors and jobs in the formal sector. Other topic- or institution-specific indicators used for programme monitoring and evaluation or management of resources are not included, for example number of business development advisers with international certification.

1.2 Structure and grouping of indicators

The indicators are structured broadly into 4 categories:

1) Labour supply (labour force);
2) Labour supply (Other work activities);
3) Labour demand; and
4) Context.

For each category, classes of indicators are assigned priorities based on

(a) Major needs as reflected in national development policies (NDP) (Priority 1);
(b) Other needs of NDP (Priority 2);
(c) Other useful indicators for the Rwandan labour market (Priority 3); and
(d) Other requests from regional and international frameworks (Priority 4).

1.3 Structure of Handbook

The Handbook presents detailed metadata for indicators in Priority Classes 1 and 2 in Chapters 2 and 3 respectively. Within each Priority Class, the indicators are organised by the above categories and within each category by groups of indicators relating to the same labour market phenomenon (Table 1). Metadata for the indicators in Priority Classes 3 and 4 are not included. These are generally available from the sponsoring regional and international frameworks. See Annex 1 for a full list of the indicators.

10 indicators in the Priority 1 Class are designated as core (see Table 2).

Table 1: Indicators - Categories by Groups

Labour supply (Labour force)	Labour supply (Other work activities)	Labour demand	Context
Population	Other labour input into SNA	Vacancies & jobs created	Context
Labour Force	Other non-SNA labour supply	Costs to employer	
Employment		Establishments	
Labour Underutilization			
Wages			
Skills			
Employment Equity & Industrial relations			
Safe Work & Social protection			
Poverty			

Table 2: Core labour market indicators

Category	**Group**	**No.**	**Title**
1: Labour Supply (Labour force)	Employment	1	***Employment-to-population ratio***
		2	***Distribution of Employed population by Industry***
		3	***Vulnerable employment rate***
	Labour Underutilization	4	***Rate of Labour underutilization***
	Wages	5	***Average hourly earnings of employees by Industry, Occupation***
	Skills	6	***Distribution of Labour force by Educational attainment***
	Poverty of employed persons	7	***Working poverty rate***
2: Labour demand	Vacancies & Jobs	8	***Vacancy rate***
		9	***Distribution of Jobs created in Formal/informal sectors by Industry***
3: Context	Context	10	***Labour productivity (Growth rate of the ratio GDP/E)***

In this Chapter, we introduce concepts and definitions of some basic statistics that recur in many of the indicators. Also an overview is given of the basic international classifications used with respect to labour statistics.

1.4 Concepts and definitions: key variables

The details below come from the international standards on measurement of each of the variables. Information on these is available from http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/lang--en/index.htm. Wherever relevant, the specifics relating to the versions used in Rwanda are also mentioned.

Specifically the information in Sections 4.1 to 4.6 are from the most recent international standard on 'Statistics of work, employment and labour underutilisation', adopted by the 19th International Conference of Labour Statisticians in October, 2013[1].

1.4.1 Working age population

The working age population is the population above a certain age that is specified for the measurement and analysis of work activities. In Rwanda, it consists of persons 16 years old and above although often it is taken as persons aged 15 years and older. It should be noted that this definition is used for purposes of analysis. In most cases, for data collection, the limit is in fact 10 years and older.

1.4.2 Labour force

The labour force consists of all persons in the working age population who are either employed or unemployed, as defined below. It was previously also referred to as the 'currently active population'.

1.4.3 Employed persons

According to the recent international standards, persons of working age are classified as employed if, during a short reference period of 7 days or one week, (i) they did some work (even for just one hour) for profit or pay, in cash or in kind; or (ii) they were attached to a job or had an enterprise from which they were 'temporarily' absent during this period.

This new definition differs from the old[2] in that it no longer includes persons who were engaged in work that is not income-generating, such as subsistence agriculture. Hence there is no longer any reference to 'work for family gain' in the definition. The previous standards defined the working age population and employment in terms of the performance of economic activities as defined by the System of National Accounts (SNA). The existing statistics and surveys of NISR are based on these earlier standards, which are outlined in AfDB (2012)[3].

1.4.4 Unemployed persons

Persons of working-age are classified as unemployed if they (a) were not in employment, (b) had taken active steps in a recent period to seek employment, and (c) were currently available for employment had a job opportunity occurred. The period of job search is defined as the preceding four weeks.

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[1] http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_230304/lang--en/index.htm

[2] Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_087481/lang--en/index.htm

[3] AfDB (2012): *Labour force data analysis: Guidelines with African specificities*. (African Development Bank, Abidjan), http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Labour%20Force%20Data%20Analysis_WEB.pdf

The previous standards had a recommendation that in some circumstances countries could apply a relaxed definition of unemployment based on persons who meet only the criteria of "without work" and "currently available for work". This is no longer applicable under the new standards.

1.4.5 Informal sector

The ***informal sector*** consists of unregistered and/or small unincorporated private enterprises engaged in the production of goods or services for sale or barter. In Rwanda, it is defined as follows:

A non-agricultural household enterprise is in the informal sector if the enterprise is not registered with the Rwanda Revenue Authority (RRA) or it is registered but the number of persons engaged in it is less than 5 and it does not keep formal accounts[4].

Excluded activities include: agricultural and related activities, households producing goods exclusively for their own use, e.g. subsistence farming, domestic housework, care work, and employment of paid domestic workers; and volunteer services rendered to the community.

Employment in the informal sector: A person is employed in the informal sector if the person was employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job.

1.4.6 Informal employment

Persons in informal employment comprise (a) Employers and own-account workers employed in their own informal sector enterprises; (b) Members of producers' cooperatives employed in their own informal sector cooperatives; (c) Own -account workers engaged in the production of goods exclusively for own final use by their household ; (d) Contributing family workers, irrespective of whether they work in formal or informal sector enterprises; (e) Employees holding informal jobs, whether employed by formal sector enterprises, informal sector enterprises, or as paid domestic workers by households. Employees are considered to have informal jobs if their employer does not pay contributions to their social security, or if they do not benefit from paid annual leave or payment for leave not taken, or paid sick leave in case of illness or injury.[5]

Informal employment is a jobs-based concept. It is measured as the number of informal jobs, with persons having more than one such job counted multiple times.

1.4.7 Working time

The concept of working time used in the Handbook is that of ***Hours actually worked***. This is defined as the time spent in a job for the performance of activities that contribute to the production of goods and/or services during a specified short or long reference period. It covers time spent directly on and in relation to productive activities, as well as down time and resting time. Hours actually worked excludes

[4] National Institute of Statistics of Rwanda (August 2011): *Establishment Census Report, 2011*, Chapter 9, pg 155.

5 17th ICLS: *Guidelines concerning a statistical definition of informal employment*. http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/guidelines-adopted-by-international-conferences-of-labour-statisticians/WCMS_087622/lang--en/index.htm

time not worked, such as annual and sick leave, public holidays, parental leave, commuting time, educational activities and longer pauses, for example lunch breaks.[6]

1.4.8 Income

Earnings in this context refer to regular remuneration received from employers, in cash and in kind. These include direct wages and salaries for time worked or work done, remuneration for time not worked (for example, paid annual leave), as well as bonuses and gratuities regularly received. They are reported gross, i.e. before deduction of taxes and mandatory contributions to social security, and exclude employers' contributions paid to social security and pension schemes in respect of their employees, as well as the benefits received by employees under these schemes. Earnings also exclude severance and termination pay.[7]

1.5 Summary of major classifications

1.5.1 Occupations

The International Standard Classification of Occupations (ISCO) organizes jobs into a clearly defined set of groups according to the tasks and duties undertaken in the job. A job is defined as a set of tasks and duties performed, or meant to be performed, by one person, including for an employer or in self-employment. An occupation is defined as a set of jobs whose main tasks and duties are characterised by a high degree of similarity. ISCO categorizes all jobs into groups, which are hierarchically structured in a number of levels. The first version of ISCO was published in 1958 and since then ISCO has been revised in 1968, 1988 and 2008. The International Standard Classifications of Occupations 2008 (ISCO-08) has ten major groups associated with four broad skill levels. These levels are defined in relation to the levels of education specified in the International Standard Classification of Education. The use of ISCED categories to assist in defining the four skill levels does not imply that the skills necessary to perform the tasks and duties of a given job can be acquired only through formal education. The skills may be, and often are, acquired through (informal) training and experience. In addition, it should be emphasized that the focus in ISCO-08 is on the skills required to carry out the tasks and duties of an occupation, and not on whether a worker employed in a particular occupation is more or less skilled than another worker in the other occupation.

1.5.2 Industries

The International Standard Industrial Classification of All Economic Activities (ISIC) classifies establishments on the basis of their production processes, with those having common production processes resulting in a homogeneous set of products grouped into the same class. It uses (a) the inputs, the process and the technology of production; (b) the character of the goods and services produced; and (c) the uses to which the goods and services are put, as the main criteria in the delineation of aggregate groups. ISIC, Revision 4, classifies establishments into 21 major groups represented by letters from A to U[8]. In some instances, these are further classified into three groups as follows:

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[6] ILO: *Resolution concerning the measurement of working time*, adopted by the Eighteenth International Conference of Labour Statisticians: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_112455.pdf

[7] ILO: *Resolution concerning the measurement of employment-related income*, adopted by the Sixteenth International Conference of Labour Statisticians (October 1998), **http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/WCMS_087490/lang--en/index.htm**

[8] UN, (2008): International Standard Industrial Classification of All Economic Activities,. Series M, Rev.4, http://unstats.un.org/unsd/cr/registry

- Agriculture which covers agriculture, forestry and fishing (category A);
- Industry which includes mining and quarrying (including oil production), manufacturing, construction, electricity, gas, and water (categories B-F); and
- Services which includes wholesale and retail trade and restaurants and hotels; transport, storage, and communications; financing, insurance, real estate and business services; and community, social and personal services (categories G-U).

1.5.3 Status in employment

The International Classification of Status in Employment (ICSE-93)[9] classifies employed persons with reference to the distinction between "paid employment" jobs and "self-employment" jobs. *Paid employment jobs* are those jobs where the incumbents hold explicit (written or oral) or implicit employment contracts which give them a basic remuneration not directly dependent upon the revenue of the unit for which they work. *Self-employment jobs* are those jobs where the remuneration is directly dependent upon the profits (or the potential for profits) derived from the goods and services produced (where own consumption is considered to be part of profits). The incumbents make the operational decisions affecting the enterprise, or delegate such decisions while retaining responsibility for the welfare of the enterprise. On this basis, employed persons are classified according to the following categories: (a) employees; (b) employers; (c) members of producers' cooperatives; (d) own-account workers; (e) contributing family workers (formerly referred to as unpaid family workers); and (e) workers not classifiable by status.

1.5.4 Educational attainment

The levels of educational attainment are based on the following categories of the International Standard Classification of Education, 1997 (ISCED-97)[10]: no schooling (category X); pre-primary education (Level 0); primary education or first stage of basic education (Level 1); lower secondary or second stage of basic education (Level 2); upper secondary education (Level 3); post-secondary non-tertiary education (Level 4); first stage of tertiary education (Level 5); and second stage of tertiary education (Level 6).

1.6 Some useful literature

a. ILO (2013): Resolution concerning statistics of work, employment and labour underutilization[11]
b. AfDB (2012): *Labour force data analysis: Guidelines with African specificities.* (African Development Bank, Abidjan)[12]
c. ILO (2014): *Key Indicators of the Labour Market*. 8th edition. (ILO, Geneva).
d. ILO (2008): *Decent Work Indicators for Asia and the Pacific: A Guidebook for Policy-makers and Researchers*. (ILO, Regional Office for Asia and the Pacific. Bangkok).
e. ILO (2013): *Decent Work Indicators, Guidelines for Producers and Users of Statistical and Legal Framework Indicators*, Draft ILO Manual[13]

9 ILO: Resolution concerning the International Classification of Status in Employment (ICSE) adopted by the Fifteenth International Conference of Labour Statisticians (Geneva, January 1993). http://www.ilo.org/wcmsp5/groups/public/---dgreports/---integration/---stat/documents/normativeinstrument/wcms087562.pdf

10 United Nations Educational, Scientific and Cultural Organization: *International Standard Classification of Education (ISCED-97)* (UNESCO, 1997). http://www.uis.unesco.org/TEMPLATE/pdf/isced/ISCED_A.pdf

11 http://www.ilo.org/global/statistics-and-databases/meetings-and-events/international-conference-of-labour-statisticians/19/WCMS_230304/lang--en/index.htm

12 http://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/Labour%20Force%20Data%20Analysis_WEB.pdf

13 http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/publication/wcms_223121.pdf

Chapter 2: Priority 1 Indicators

2.1 Labour supply (Labour force)

2.1.1 Group 2 – Labour force

LF 1: Labour force participation rate (LFPR)

ELEMENT	DESCRIPTION
1. Definition	Proportion of the working age population who are in the labour force.
2. Statistics required	Labour force (employed + unemployed) (LF) Working age population (WAP)
3. Method of Computation	LFPR = 100 * LF / WAP
4. Data Sources a. Best b. Best available c. Others	Labour force survey EICV Population and housing census, Other household survey with a labour force module or questions.
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g educational attainment. Note: For a specific sub-group A of the working age population, e.g. women, the LFPR is the proportion (or percentage) of this sub-group that are in the labour force.
6. Interpretation	The labour force participation rate is an overall indicator of the level of labour market activity and is thus especially useful for formulating employment policies. It provides an indication of relative size of the supply of labour available for the production of goods and services for pay or profit. It should be noted that the labour force does not include persons engaged exclusively in activities for producing goods or services that are not done for pay or profit such as subsistence production of goods, own-use production of services, volunteer production of goods or services and unpaid trainee or apprentice work. Some of these excluded activities do however result in the production of goods or services that are considered as part of production by the system of national account statistics (SNA). Thus not all labour input into SNA production is included as employment.

ELEMENT	DESCRIPTION
7. Uses and limitations	The LFPR is relatively stable over a short period of time but may vary over the medium term depending on social, economic and cultural development. Thus a reasonable time interval is required to detect real changes in it. The analysis of LFPR separately for males and females serves a useful purpose in examining gender differences in the labour market. The same can also be done by geographical location (province, residence, and district). In the analysis across age groups, the LFPR has an up-turned U shape with those at lower ages having low values. As age increases, the rate increases up to a certain age and then declines at older ages. This curve can be used to determine at what age over 50% of the WAP enters the labour market and, at the other end, exits the labour market. Factors that can affect the value of the LFPR include educational and cultural patterns, and changes in country policies such as changes in school leaving age. The definition of the WAP is also crucial.
8. Other frameworks	ILOSTAT, EAC, KILM, DWI
9. Notes	

2.1.2 Group 3 – Employment

LF 2: Employment-to-population ratio (EPR)

ELEMENT	DESCRIPTION
1. Definition	Proportion of the working age population who are employed.
2. Statistics required	Employed population (E), Working age population (WAP)
3. Method of Computation	EPR = 100 * E / WAP
4. Data Sources a. Best b. Best available c. Others	Labour force surveys EICVs Population censuses, Other household surveys with LF module, Establishment censuses/survey for numerator & population sources for denominator
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g educational attainment. Note: For a specific sub-group A of the working age population, e.g. women, the EPR is the proportion (or percentage) of this sub-group that are employed.
6. Interpretation	The EPR is a measure of the extent to which the economy is providing income-generating jobs for persons who are of working age. It thus gives an indication of the demand for labour in the economy, in terms of the quantity of workers.
7. Uses and limitations	The EPR is relatively stable over a short period of time but may vary over the medium-to-long term due to social, cultural, economic and technological changes. Thus a long period of observation is required to detect real changes in it. A decline in EPR often signals an economic slowdown, and even more so if its numerator, total employment, is also declining. However there is no optimal value for it. Values at the extreme do not necessarily indicate progress or lack of it. High values could come from a lack of education opportunities for young persons, the absence of social protection for persons out of work and for persons experiencing hardship. Very high values of over 80% likely signal an abundance of poor quality jobs. At the same time, low values may be due to unemployment, discouraged workers, persons engaged in home work or high educational enrolment rates. Sudden sharp increases could signal declining labour productivity if not matched by similar increases in GDP. Note that the EPR does not measure the quality of employment; it measures only the quantity of labour demand. Thus an increasing value only reflects an increase in the demand for employed persons. The computation of the EPR for different sub-groups of the population, as determined by the disaggregation variables above, is useful in

ELEMENT	DESCRIPTION
	analyzing differences in availability of employment opportunities to these sub-groups. In particular as the EPR for the age group 25-54 years, referred to as the 'core EPR', is unaffected by schooling and retirement policies, its analysis is critical for understanding the performance of the labour market over time. When the economy is growing, this ratio should increase, or at least remain unchanged, reflecting a certain harmony between the growth of the population and employment. The EPR is one of the indicators under the Millennium Development Goals (MDGs) for monitoring progress towards Target 1.B: Achieving full and productive employment and decent work for all, including women and young people.
8. Other frameworks	MDG, ILOSTAT, EAC, KILM, DWI
9. Notes	

LF 3: Distribution of employed population by industry (EIN)

ELEMENT	DESCRIPTION
1. Definition	The proportion of employed population in each 1-digit industry group, as defined in the International Standard Industrial Classification of all economic activities (ISIC) (P_i) (Alternatively, industry may be considered only in terms of the summarized grouping of ISIC digit 1 groups: Agriculture, Industry & Services)
2. Statistics required	E_i : Number employed in industry group i, for all groups E: Total number of employed persons
3. Method of Computation	$P_i = 100 * E_i / E$ for each group i
4. Data Sources a. Best b. Best available c. Others	 Labour Force Surveys EICV Population Census, Other household surveys with LF module; Manpower survey, Establishment survey, Establishment census; RSSB/RRA+ IPPIS
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g. formal/informal classification, institutional sector Note: For a specific sub-group A of the employed population, e.g. women, P_i is the proportion (or percentage) of this sub-group that are employed in industry group i.

ELEMENT	DESCRIPTION
6. Interpretation	The distribution of employment by industry, also referred to as economic activity, is useful in identifying the relative importance of different industries in terms of their contribution to employment, now defined as income-generating jobs.
7. Uses and limitations	Analyzed over time, it can identify shifts in employment from one industrial sector to another for example, from agriculture to industry and services. It is thus particularly pertinent in assessing progress in the implementation of the objective in EDPRS2 to move employment away from low-paying jobs in agriculture to higher quality jobs in industry and services. When adequate data is available, this analysis can be done even at the level of individual industries and thus the identification of those in which employment is growing or otherwise. In this way, policymakers will be able to plan relevant human resources development, especially with regards to skills development, for those industries where the demand for labour is increasing. Any such analysis should however take into consideration other factors that may influence this distribution such as migration from rural areas into poor quality informal sector urban jobs. The recent change in the definition of employment may also impact on this distribution since many of the independent farmers may no longer be considered as employed. It is worth noting that EIN is a structural indicator that changes slowly over time. So it has to be observed over a long period to detect significant changes. Using any of the disaggregation variables above, it is possible to examine the extent to which differences exist across the categories of the variable in terms of sector employment; for example whether employed females are concentrated in low-paying industries compared to their male counterparts. Sector employment can also be analysed along with sector output to examine the relationship between sector out and employment. When employment is complemented by labour input from other work activities (cf LF 22), the sum can be used to obtain estimates of sector labour productivity. The analysis of growth rates in labour productivity across sectors is useful in determining those economic activities that are critical for economic growth.
8. Other frameworks	ILOSTAT, EAC, KILM, DWI
9. Notes	

LF 4: Distribution of employed population by status in employment (ESE);

- **Vulnerable employment rate (VER)**
- **Proportion of employees in precarious work (EPW)**

ELEMENT	DESCRIPTION
1. Definition	The proportion of employed persons in each status in employment group (P_i).
2. Statistics required	S_i: The number of employed persons in status in employment group i. E: The number of employed persons
3. Method of Computation	$P_i = 100 * S_i / E$ for each group i
4. Data Sources	
a. Best	Labour force surveys
b. Best available	EICV
c. Others	Population Census, Other household surveys with LF module; Manpower survey, Establishment survey, Establishment census; RSSB/RRA+ IPPIS
5. Disaggregation	
5.1 sex	Male/Female
5.2 geographical	Province, district and residence (urban/rural)
5.3 age	Age group
5.4 other characteristics	Other variables that may be explanatory variables for employment activity, e.g. educational attainment, occupation Note: For a specific sub-group A of the employed population, e.g. women, P_i is the proportion (or percentage) of this sub-group that are employed in status in employment group i.
6. Interpretation	Changes in ESE monitor the dynamics of the labour market and level of development of the economy. The categories of the classification are based on the degree of economic risk and the level and type of authority associated with the job. Employee jobs have little risk and not much authority. Self-employed jobs (that is, employers, own-account workers, members of producers' cooperatives and contributing family workers) on the other hand have much greater risk than employees as their income depends crucially on the success of the business. Amongst the self-employed, employers have authority over employees whilst contributing family workers (CFW) have practically no authority. They in fact have the highest economic risk but the least authority. So, although no strict hierarchy exists, employer and employee jobs seem

ELEMENT	DESCRIPTION
	preferable over own-account and CFW jobs. Thus a shift in the economy towards employees (paid employment) away from own-account workers and CFW would indicate an improvement in the level of development in the economy. In particular, the "**vulnerable" employment rate (VER),** defined as the proportion of the employed population who are own-account workers or CFW, is a measure of this. So progress in the level of development is associated with decreasing values of VER whilst high levels of the indicator may point to inadequate employment conditions. Amongst the employees, a further sub-division can be made of those who are in **precarious work (EPW),** as measured by unstable jobs (casual and temporary jobs). This identifies the quantum of undesirable employee jobs, complementing VER. ESE is a structural indicator that changes slowly over time.
7. Uses and limitations	ESE, VER and EPW can be analyzed using any of the above disaggregation variables. The former analysis could reveal if the groups associated with different categories of the variables have significantly different patterns in their statuses in employment. For example, it should be possible to determine whether women constitute the majority of CFWs and so are likely to experience a higher degree of economic risk and greater lack of authority vis-à-vis other status in employment categories. In particular the joint analysis of ESE/VER/EPW and EIN can show the extent of development in the economy as workers move away from farm jobs as own account workers into off-farm jobs as employees. Other interesting variables for joint analysis are informal employment and employment in the informal sector. It is sometimes useful to further sub-categorize employees to get smaller more homogenous sub-groups for analysis. For example into regular versus irregular (temporary, casual) employees. The former constitute the most privileged group amongst employees. VER is one of the indicators under the Millennium Development Goals (MDGs) for monitoring progress towards Target 1.B: Achieving full and productive employment and decent work for all, including women and young people.
8. Other frameworks	MDG (VER), ILOSTAT, EAC, KILM, DWI
9. Notes	

LF 5: Informal sector employment rate (ISR)

ELEMENT	DESCRIPTION
1. Definition	Proportion of persons employed in informal sector enterprises.
2. Statistics required	ISE: Number of persons employed in informal sector enterprises E: Total number of persons in non-agricultural employment
3. Method of Computation	ISR = 100 * ISE / E
4. Data Sources a. Best b. Best available c. Others	 Mixed survey; Labour force surveys EICV Population Census, Other household surveys with LF module; Manpower survey, Establishment survey, Establishment census;
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g. educational attainment, occupation, industry Note: For a specific sub-group A of the employed population in non-farm enterprises, e.g. women, ISR is the proportion (or percentage) of this sub-group that are employed in the informal sector.
6. Interpretation	The informal sector is an important measure of the performance of the labour market in terms of both its absorption of persons who would otherwise be out of employment or in poverty and its signal of the quality of employment. With increasing urbanization, rural migrants tend to find work only in this sector. Also persons in some form of inadequate employment with respect to income invariably find additional jobs in this sector. In this sense, increasing values of ISR could be seen as positive. However as the jobs tend to be of low quality with little or no legal protection, high values could also indicate poor quality of employment. The Informal sector employment rate is relatively stable but, as with the LFPRs, will vary over the medium term depending according to economic, cultural and social development.
7. Uses and limitations	When analyzing this indicator, it should be noted that increases in ISR could be due to the effects of globalization as enterprises convert former direct employment into sub-contract work in micro-enterprises operating informally. The ISR is usefully analyzed in respect of age groups, for urban and rural areas separately and perhaps also for other groupings such as occupation groups, industry groups, educational attainment groups, migrant status groups, and for other variables that may be explanatory variables for economic activity. The extent to which these analyses can be done would however depend on the method used for collecting the data.

ELEMENT	DESCRIPTION
	The ISR complements the unemployment rate and time-related underemployment rate to give a full description of the labour market particularly with respect to the quality of employment.
8. Other frameworks	EAC, KILM, DWI
9. Notes	

LF 6: Informal employment rate (IER)

ELEMENT	DESCRIPTION
1. Definition	The percentage of persons in employment who are in informal employment.
2. Statistics required	IE: Number of employed people aged 16 years or more who are classified as informally employed. E: Number of employed people aged 16 years or more.
3. Method of Computation	IER = 100 * IE / E
4. Data Sources a. Best b. Best available c. Others	 Labour force surveys EICV Other household surveys with LF module
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g. educational attainment, migrant status, industry, occupation, marital status Note: For a specific sub-group A of the employed population, e.g. women, IER is the proportion (or percentage) of this sub-group that are informally employed.
6. Interpretation	IER assesses the extent to which employed persons are working in jobs that generally lack basic social or legal protections or employment benefits. A decreasing IER indicates progress as regards the proportion of persons so employed, whether they work in the formal sector, informal sector, in agriculture or in households. It is thus an important indicator regarding the quality of employment.
7. Uses and limitations	IER is relatively stable but will vary over the medium to long term according to economic, cultural and social development. Given this relatively low volatility, the frequency of data collection and dissemination for the IER may be less than that for other key indicators such as the unemployment rate. Analysis of the IER is useful for policy making relating to the conditions of work of employed persons, especially their legal and social protection. It can also contribute to policies towards alleviating poverty, as informal employment correlates with poverty. The breakdown of the IER by sex is valuable for understanding gender

ELEMENT	DESCRIPTION
	differentials. For example, it can be used to examine the statement that the informal economy is the fall-back position for women who, for one reason or another, cannot access paid jobs. The analysis of IER by age group or any of the other disaggregation variables above will show the profile of informal employment by the various categories of the variable. In particular the disaggregation by status in employment over time could indicate trends in the situations of contributing family workers. As informal employment is the sum of employment in the informal sector and informal employment which is outside the informal sector, it is worth tracking these separate components to understand the full dimensions of informality in an economy. This can be achieved by disaggregating informal employment by type of production unit (formal sector enterprises, informal sector enterprises, and households).
8. Other frameworks	KILM, DWI
9. Notes	

2.1.3 Group 4 – Labour underutilization

LF 7: Unemployment rate (UR)

ELEMENT	DESCRIPTION
1. Definition	The percentage of the labour force who are unemployed, as defined in Chapter 1, §3.4.
2. Statistics required	U: Number of persons who are unemployed, LF: Total number of persons in the labour force
3. Method of Computation	UR = 100 * U / LF
4. Data Sources a. Best b. Best available c. Others	 Labour force surveys EICV Other household surveys with LF module
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g. educational attainment, migrant status, marital status Note: For a specific sub-group A of the employed population, e.g. women, UR is the proportion (or percentage) of this sub-group that are unemployed.
6. Interpretation	UR is a measure of imbalance in the labour market in terms of the extent of non-utilization of labour supply in the economy, and so is an indicator of the performance of the labour market. It reflects the inability of the economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment and actively seeking work. Thus, UR is an indicator of the efficiency and effectiveness of an economy to absorb its labour force, and so its use is extended to an indicator of the health of the economy. To the extent that being employed reflects social standing, UR is also a measure of social and community well-being. Progress is therefore measured by a declining trend towards acceptably low UR levels.
7. Uses and limitations	UR is relatively volatile and so measured monthly or quarterly in most developed, statistically advanced economies. The usefulness of UR as an indicator of labour market performance depends on the level of development of a country. In situations where unemployment insurance and other unemployment relief schemes or social safety nets are limited or non-existent, persons of working age are

ELEMENT	DESCRIPTION
	obliged to engage in some form of work usually in the informal economy and in self-employment characterized by poor working conditions and inadequate social protection. Thus it is important to analyse UR along with other indicators of labour underutilization such as measures of labour slack, of informal employment and of income-related inadequate employment situations. Analysis of UR by any of the above disaggregated variables provides a useful profile with regard to the lack of employment opportunities for persons within the population sub-groups represented by the different categories of the variable and to the extent of the discrimination they may suffer in the labour market. Any such analysis should take into account that some difference should be expected as a result of the definition of UR. For example, UR generally is higher in urban areas than in rural areas and for younger age groups (since these have little job experience and lower skills than older workers). So what matters is the extent of the difference and not the difference itself. When analyzing UR over time, it is advisable to seasonally adjust it to filter out usual seasonal fluctuations and typical calendar effects within the movements of the time series under review.
8. Other frameworks	ILOSTAT, EAC, KILM, DWI
9. Notes	

LF 8: Youth Unemployment rate (YUR)

ELEMENT	DESCRIPTION
1. Definition	The youth unemployment rate (YUR) is defined as the proportion of the youth labour force that is unemployed.
2. Statistics required	Number of youth in labour force (YLF) Number of unemployed youth (UY)
3. Method of computation	YUR = (100*UY)/YLF
4.Data source	
a. Best	Labour force survey
b. Best available	EICV
c. Others	Population and housing census, other household survey with a labour force module or questions
5.1 Sex	Male/Female
5.2 Geographical	Province, district and residence (urban/rural)
5.3 Age	Age group
5.5 Other	Other variables that may be explanatory variables for employment activity, e.g educational attainment.

ELEMENT	DESCRIPTION
6. Interpretation	As in the case of the unemployment rate, progress in the YUR is measured by achieving acceptably low levels. Given that frictional unemployment is always present as new entrants and re-entrants begin their job search the YUR can be expected to remain above zero. The YUR is typically higher than the adult unemployment rates. One reason is that youth comprise the majority of first-time job seekers, who usually have difficulties finding employment due to lack of experience and inadequate access to job vacancy information. Another factor is that youth tend to have high job turnover rates and at each separation they risk a spell of unemployment.
7. Use and limitations	The unemployment of youth can have long-lasting consequences. It is recognised that the loss of work experience early on in life, with its implied loss of human capital, is likely to have a scarring effect on future labour market performance, both in terms of participation and earnings. High unemployment rates also feed into long-term unemployment. This is of particular concern as it significantly increases the risks of social exclusion among young people, with destructive consequences for the individual and society. As in the case of the UR, YUR trends should be analysed jointly with changes in measures of total youth labour supply, in particular the youth labour force participation rate, and youth labour demand, especially the youth employment-to-population ratio. Declining youth unemployment rates could in some cases signal not an increasing labour demand for young workers, but a falling labour supply among youth. This fall may be for instance a result of an improved educational system. It may also be useful to examine the YUR in relation to the following supplementary indicators: (a) ratio of the youth unemployment rate to the adult unemployment rate, (b) youth unemployment as a proportion of the total unemployment, and (c) youth unemployment as a proportion of the youth population.
8. Other frameworks	ILOSTAT, EAC, KILM, DWI
9. Notes	

LF 9: Youth not in Education or training and not in Employment rate (NEET)

ELEMENT	DESCRIPTION
1. Definition	NEET is defined as the proportion of youth who are neither in employment nor in education Youth in the Rwanda context is all person of both sexes aged 14 to 35 years old. As the minimum working age in Rwanda is 16; youth for the economic activity measurement is defined as all persons aged 16 to 35 years.
2. Statistics required	A: Unemployed youth B: Youth out of Labour force C: Number of youth out of labour force who are in education D: Number of unemployed youth who are in education E: Total number of youth
3. Method of computation	NEET= (100*(A+B)-(C+D)))/E
4.Data source a. Best b. Best available c. Others characteristics	 Labour force survey EICV Population and housing census, other household survey with a labour force module or questions
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.5 Other	 Male/Female Province, district and residence (urban/rural) Age group
6. Interpretation	A high NEET rate as compared with the youth unemployment rate could mean that a large number of youth are discouraged workers, or do not have access to education or training.
7. Use and limitations	NEET captures all young people who are not in employment, education or training. It records the share of the population of all young people currently disengaged from the labour market and education, namely unemployed and inactive young people who are not in education or training. The desegregation of NEET by sex may show, for instance, a higher rate for young females as they are engaged in household chores such as washing clothes, cooking, cleaning and taking care of children and have lower school attendance. This should signal even greater concern for the future employability of these females. When disaggregated by age, the rates for the earlier age groups should be low as a high proportion of young people is supposed to be at school. The analysis over time of these rates should reveal progress being made in the preparation of young people for work by the education system.

	It should be emphasised that while NEET is a useful concept for attracting attention to young people's problems and the multifaceted nature of disadvantage, it captures a very heterogeneous population. It includes discouraged youth workers as well as persons who are only temporarily in this state. The latter are those who, having just finished one level of studies, are not looking for a job but waiting to continue their studies at a higher level of education. It also varies over time.
8. Other frameworks	ILOSTAT, DWI
9. Notes	

LF 10: Time related underemployment rate (TRUR)

ELEMENT	DESCRIPTION
1. Definition	The TRUR is defined as the percentage of employed persons who are in time-related underemployment. *Persons in time-related underemployment are those who during the reference period were employed but wanted and were available to increase their working time and worked fewer hours than a specified time threshold during the reference period (Less than 35 hours in the context of Rwanda).*
2. Statistics required	Number of employed persons (E) Number of persons in time-related underemployment (TRU)
3. Method of computation	TRUR = 100*TRU/E
4.Data source a. Best b.Best available c. Others	 Labour force survey EICV
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.5 Other	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g industry, educational attainment, occupation.
6. Interpretation	A high TRUR suggests an inadequate use of the economy's human resources. It reveals on the one hand an excess labour capacity as people are willing to work more hours but are unable to do so and on the other hand, poor quality of jobs. TRUR by demographic characteristics such as age, sex and educational attainment are useful in identifying groups of workers vulnerable to these forms of underemployment.
7. Use and limitations	Statistics on Underemployment are useful as a supplement to information on employment and unemployment, as they measure the ability of the economy to provide full employment and decent work for those who want it.

ELEMENT	DESCRIPTION
	It is recommended to disaggregate the TRUR by sex and if possible by age, educational attainment, geographic area (urban/rural) and economic activity (of the main job). Additional disaggregation may include status in employment categories and occupation group (of the main job). Users may also wish to separately identify amongst those in TRU, persons actively seeking additional work in order to confirm the willingness and availability of the underemployed to increase their working time.
8. Other frameworks	ILOSTAT, EAC, KILM
9. Notes	

LF 11: Rate of Labour underutilization (LUT)

ELEMENT	DESCRIPTION
1. Definition	LUT is the proportion of the extended labour force who are in time-related underemployment or in unemployment or in potential labour force ***The potential labour force*** *refers to persons outside the labour force who want employment but for whom existing conditions limit their active job search and/or their availability;* ***The extended labour force*** *is defined as the sum of the labour force plus the potential labour force.*
2. Statistics required	Number of persons in extended labour force (ELF) Number of persons in Time related underemployment (TRU) Number of persons in unemployment (UE) Number of persons in Potential labour force(PLF)
3. Method of computation	LUT= (100*(TRU+UE+PLF) /ELF
4.Data source a. Best b.Best available c. Others	 Labour force survey EICV
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.5 Other	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g educational attainment.

ELEMENT	DESCRIPTION
6. Interpretation	The LUT is an assessment of the labour slack in the economy. It measures the extent to which labour is either not being used (unemployment and potential labour force), or not being fully used (time-related underemployment). Thus a high LUT suggests an inadequate use of the economy's human resources.
7. Use and limitations	The underutilisation rate takes into account the unemployed, underemployed and some persons marginally attached to the labour force. This broad measure gives a more comprehensive picture of the non-utilization of the potential labour supply within the economy than the unemployment rate. In fact, the concept of unemployment has its roots in macroeconomic analysis and policies. Its main objective has been to signal deficiencies in the use of available labour resources by capturing situations of total lack of employment among persons who are seeking and available for employment. Responses to labour market downturns, however, are more varied than unemployment alone . In developing countries, where there may be limited social protection and other safety nets, people more commonly take any job that is available, supplement their income or hours with second jobs, create their own work through self-employment, engage in subsistence work or emigrate. In addition, where conditions are such that the conventional means of seeking work are of limited relevance, where expectations regarding employment are not matched by the available vacancies, or where there is simply no labour market, people may become discouraged or remain outside of the labour market. Disaggregating Labour underutilization rates by demographic characteristics such as age, sex and educational attainment is useful in identifying groups of persons vulnerable to underutilization.
8. Other frameworks	
9. Notes	

2.1.4 Group 5 – Wages

LF 12: Average hourly earnings of employees per Industry (or Occupation) (AHEi)

- **Average hourly earnings of employees in selected 2-digit or lower level industry (or occupation) groups**

ELEMENT	DESCRIPTION
10. Definition	Mean/median hourly earnings of employees by 1-digit level Industry (or Occupation) *Earnings include direct wages and salaries, remuneration for time not worked (excluding severance and termination pay), bonuses and gratuities and housing and family allowances paid by the employer directly.* *Coverage should be all jobs of full-time and part-time workers.* *Earnings are gross before deductions for social security contributions, tax, etc.*
Statistics required	R_i: Gross earnings for all employees for a given period for industry (or occupation) group i H_i: Total hours worked by all these employees for the same period for industry (or occupation) group i
11. Method of Computation	$AHE_i = R_i / H_i$ for each industry group i *Ratio of (total earnings for all employees over all establishments in industry group i) divided by (total hours worked by all employees over all establishments in industry group i)* Can also use the weighted mean of hourly earnings of employees in industry (or occupation) group i, with number of hours worked as weights.
12. Data Sources a. Best b. Best available c. Others	 Labour-related establishment surveys, especially industry (or occupation) wage surveys, Labour force surveys with earnings module EICV; Manpower survey RSSB, RRA
13. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for earnings, e.g. educational attainment, migrant status Note: For a specific sub-group A of the employed population, e.g. women, AHE_i is the mean hourly earnings of employees of this sub-group in industry (or occupation) group i.

ELEMENT	DESCRIPTION
14. Interpretation	Returns from employment of persons working in industry (or occupation) group i. Earnings constitute the largest component of the resources available to employees' households to purchase goods and services for their consumption. AHE is thus a valuable indicator for employees themselves as well as for policy-makers.
15. Uses and limitations	Analyzing AHE_i across any of the disaggregated variables permits the analysis of earnings differential among workers within the population sub-groups represented by the different categories of the variable. For, example using sex, the earnings differentials (both in absolute and relative terms) between men and women can be analyzed across the different industry (or occupation) groups. The analysis using educational attainment and age are particularly interesting as these are two main determinants of income. Comparison of the movement of earnings over time, suitably adjusted for changes in inflation, indicate the material progress (or regression) of the working population. It is also important for monitoring changes in working condition and can be used to inform adjustments in minimum wages and negotiations on collective bargaining agreements. When GDP and labour productivity are rising, AHE can be used to assess to what extent this growth is translating into income gains for workers. To inform certain policies, it is sometimes necessary to carry out the above analysis of AHE for selected lower levels of industry (or occupation) such as for the priority sectors in the EDPRS2.
16. Other frameworks	ILOSTAT, EAC, KILM
17. Notes	

2.1.5 Group 6 – Skills

LF 13: % Distribution of labour force by Educational attainment (LFED)

ELEMENT	DESCRIPTION
1. Definition	The proportion of the labour force with each level of educational attainment. *Educational attainment: : No education, Pre-primary and Primary, Post primary, Secondary , tertiary level.*
2. Statistics required	E_i : Labour force with the level of education i, for all groups E: Total number of Labour force
3. Method of computation	$P_i = 100 * E_i / E$ for each level of education i
4.Data source a. Best b.Best available c. Others	 Labour force surveys EICV Population Census, Other household surveys with LF module;
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.5 Other	 Male/Female Province, district and residence (urban/rural) Age group Note: For a specific sub-group A of the labour force, e.g. women, P_i is the proportion (or percentage) of this sub-group that have the level of education i.
6. Interpretation	The distribution of labour force by educational attainment is useful in showing the quality in terms of education of the country's labour force. The advance of complex organizations and knowledge requirements, as well as the introduction of sophisticated machinery and technology, means that economic growth and improvements in welfare increasingly depend on the degree of literacy and educational attainment of the total population. Hence the importance of this indicator. Admittedly, the population's predisposition to acquire such skills can be enhanced by experience, informal and formal education, and training.
7. Use and limitations	Statistics on levels and trends in educational attainment of the labour force can: (a) provide an indication of the capacity of countries to achieve important social and economic goals; (b) give insights into the broad skill structure of the labour force; (c) highlight the need to promote investments in education for different population groups; (d) support analysis of the influence of skill levels on economic outcomes and the success of different policies in raising the educational level of the workforce; (e) give an indication of the degree of inequality in the distribution of education resources between groups of the population, particularly between men and women, and within; and (f) provide an indication of the skills of the

ELEMENT	DESCRIPTION
	existing labour force, with a view to discovering untapped potential. Analysed over time, it can show the improvement in the quality of the labour force. For instance, the increase of the proportion of university graduates in labour force over time may reflect the improvement in the quality of the labour force. Disaggregation by sex and age is particularly interesting in examining how the 'skill' situation is improving over the ages and for each of the sexes.
8. Other frameworks	ILOSTAT, KILM
9. Notes	

LF 14: % Distribution of Unemployed persons by Educational attainment (ULEA)

ELEMENT	DESCRIPTION
1. Definition	The proportion of unemployed population in each level of educational attainment
2. Statistics required	E_i : Unemployed population with the level of education i, for all groups E: Total number of Labour force
3. Method of computation	$P_i = 100 * E_i / E$, for each level of education i
4.Data source a. Best b.Best available c. Others	 Labour force surveys EICV Population Census, Other household surveys with LF module;
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.5 Other	Male/Female Province, district and residence (urban/rural) Age group Note: For a specific sub-group A of the unemployed population, e.g. women, P_i is the proportion (or percentage) of this sub-group that have the level of education i.
6. Interpretation	The distribution of unemployment by educational attainment is useful in examining the relationship between unemployment and lack of skills, as measured by educational level.
7. Use and limitations	ULEA levels and trends over time should be analysed together with the volume of unemployment in each educational attainment group to understand whether unemployment affects a large number of people in selected groups.
8. Other frameworks	ILOSTAT, KILM,DWI
9. Notes	

ELEMENT	DESCRIPTION
1. Definition	The proportion of employed population in each1-digit occupation group as defined by the international Standard Classification of occupations (ISCO, 08) by level of education (Pij)
2. Statistics required	E_{ij} : Employed population in occupation group j who have the level of education i, for all groups of occupations and all level of education E_j: Total number of Employed population in occupation group j
3. Method of computation	$P_{ij} = (100*E_{ij})/E_j$
4.Data source a. Best b.Best available c. Others	Labour force surveys EICV Population Census
5. Disaggregation 5.1 Sex 5.2 Geographical 5.3 Age 5.4 Other	Male/Female Area of residence (Urban, rural) Broad age groups (youths, Others) Broad Industry Groups (Agriculture, Industry, Services)
6. Interpretation	The distribution of employed persons by occupation and education attainment is important in shedding light on how efficient the knowledge acquired through education is being used at the labour market. If the educational attainment of the worker is above the skills requirement of his/her job; this means that the return on investment in education and training is below optimum and somewhat wasted. Also if the educational attainment of the worker is lower than the skills required for the job, this signals to some extent existence of a skills gap.
7. Use and limitations	The examination of educational levels in relation to occupation is useful for policy formulation, as well as for a wide range of economic, social and labour market analyses. The distribution of employed persons by occupation and education attainment is used to assess skills mismatch. A simple method that uses level of educational attainment and one-digit occupation defines a mismatch when the educational attainment of the workers is higher or lower than the education level required by the job. Educational attainment is only one form of skills acquisition. In particular, it does not reflect the situation with respect to soft skills. So any imbalance between educational attainment and occupation is only indicative of skills gap, as the employed person may have acquired their skills otherwise. Disaggregation by sex, broad age groups (youth, others) and geographical location helps in establishing a profile of persons

ELEMENT	DESCRIPTION
	whose occupations do not match their skills. The analysis by broad industry groups, if possible, would signal which economic activities are at greater risk of not having the right skills required.
8. Other frameworks	
9. Notes	

LF 16: % Distribution of Employed persons with Certification by type of certification by industry.

ELEMENT	DESCRIPTION
1. Definition	Proportion of employed population with certification by level of certification in each industry (P_{ij}) ***Level of certification:*** *Vocational certificate, Bachelor's degree, Master degree, Ph,Ds, Professional qualification.*
2. Statistics required	E_{ij} : Employed population in industry group j who have the level of certification i, for all industry groups and all levels of certification E_j: Total number of Employed population with certification in industry group j.
3. Method of computation	$P_{ij} = (100 * E_{ij})/E_j$
4.Data source a. Best b.Best available c. Others	LFS EICV Integrated Business Survey, Manpower survey, Population Census
5. Disaggregation 5.1 Sex	Male/Female
6. Interpretation	The distribution of persons with certification by level of certification assesses the availability of certified skills in the different industry groups. Given the objective to push growth in some industries in EDPRS2, it is essential that these skills are available to manage the process. A comparison across the industry groups will show the relative importance of developing such skills in these industries. This will be of assistance to both the Capacity Building Secretariat and the relevant training institutions producing such skills in developing their programmes.
7. Use and limitations	The importance of this indicator is in assisting in the assessment of progress with respect to the specific objective of EDPRS2 to develop skills in some sectors by comparing changes in their distribution over time. In this respect it will be useful to also analyze the trends in the quantum of such skills across the sectors. The indicator however may not be useful in revealing the situation with respect to the identified priority sectors in EDPRS2. Data collection to do this is a challenge. Given the rarity of occurrence of such skills and the level in the industrial classification of these special industries, household surveys and establishment surveys

ELEMENT	DESCRIPTION
	may fail to pick up sufficient numbers of employed persons for a credible analysis. At the same time, the establishment census may not collect information on educational level with such details. It could however be used as a sampling frame for enterprises in the priority sectors which can then be later surveyed. There are no known administrative sources that have the data on detailed qualifications and at the same time detailed industry levels.
8. Other frameworks	
9. Notes	

LF 17: Employed foreigners ratio by Industry (FEI)

ELEMENT	DESCRIPTION
1. Definition	Number of employed foreigners per 1000 employed nationals by industry
2. Statistics required	E_i : Number of foreigners employed in Industry Group i, Ni: Total number of Nationals employed in Industry Group i
3. Method of Computation	$P_i = 1000 * F_i / Ni$ for each Industry Group i
4. Data Sources a. Best b. Best available c. Others	 MIFOTRA MIFOTRA Manpower survey; EICV, Labour force surveys, Other household surveys with LF module; Population Census; Establishment census
5. Disaggregation 5.1 Sex 5.2 Age 5.3 Level of education	 Male/Female Age groups None, primary, secondary, vocational, other tertiary
6. Interpretation	FEI is useful in identifying those industrial sectors in which the skills demanded are not available locally, in the sense that these industrial sectors are hiring the largest percentages of foreigners.
7. Uses and limitations	Analyzed over time, it can show the extent to which the capacity building programmes are making an impact on the skill needs of the different industrial sectors. It is worth noting that FEI is a structural indicator that would change slowly over time given the fixed duration of work permits and the unavoidable lag between training and employment. So it has to be observed over a long period to detect significant changes. Using the above disaggregation variables, it is possible to examine the situation of skills shortages in the different sectors for each sub-group. Analysis based on data from household surveys should take into account the fact that foreigners make up only a small proportion of the

ELEMENT	DESCRIPTION
	population. Trends in FEI should be examined against trends in output.
8. Other frameworks	None
9. Notes	

LF 18: Distribution of trained persons by areas of training and level of training (PT)

ELEMENT	DESCRIPTION
1. Definition	Distribution of trained persons by areas of training and by level of training *Areas of training:* *Level of training: HLIs, TVET and VTCs*
2. Statistics required	T_{ji} : Number of trained persons in area of training j at level i, O_i: Number of trained persons at level i
3. Method of Computation	$P_i = 100 * T_{ji} / O_i$ at level i
4. Data Sources a. Best b. Best available c. Others	Training Institutions Records WDA MINEDUC
5. Disaggregation 5.1 Sex	Male/Female
6. Interpretation	PT identifies the volume and type of skills being provided by training system.
7. Uses and limitations	Analyzed over time, it can show the extent to which the training system is providing skills in different areas and at different levels. This should be assessed along with LF 18 and LF 19 to understand the relationship between skills availability and skills needs. Using the above disaggregation by sex, it is possible to examine gender differences in skills availability.
8. Other frameworks	None
9. Notes	

2.1.6 Group 9: Poverty of employed persons

LF 19: Working poverty rate (WPR)

ELEMENT	DESCRIPTION
1. Definition	Proportion of employed persons living in households below the national poverty line *Household in poverty:* Households are defined as poor if their personal consumption expenditure or income is below a specified threshold, referred to as the "poverty line". *National Poverty line:* *The national poverty lines used in 2010/11 was RwF 118,000.* *The international poverty line of 1.25 US$ in 2005 purchasing power parity (PPP$) is generally used to monitor progress under MDG Target 1B.*
2. Statistics required	PW: Number of employed persons living in poor households; E: Total number of employed persons
3. Method of Computation	WPR = 100 * PW / E
4. Data Sources a. Best b. Best available c. Others	Household income and expenditure surveys or Living standards measurement surveys with employment modules EICV Labour force surveys that collect information on household income, including transfers
5. Disaggregation 5.1 Sex 5.2 geographic 5.3 Others	Male/Female Province, district, residence (urban/rural) Industry, Status in employment, Education level.
6. Interpretation	WPR assesses the number of workers who, despite being in employment, live in poverty and so have unacceptably low consumption levels. It is thus an indication of the level of well-being and living conditions of workers and their families. In a country with no social protection for persons not working, the working population must take on work, even of low income, low productivity and poor quality, and so end up living in poor households. Hence WPR tends to be high in such environments. Thus the lower the value of WPR, the better is the situation.
7. Uses and limitations	The measurement of WPR poses some challenges. In the first instance, poverty is a household concept. The classification of a household as poor requires decisions about (a) poverty line; and (b) the aggregate used (consumption or income). These in turn depend on the

ELEMENT	DESCRIPTION
	income/consumption of both the employed person and of other household members as well as on the number of dependent household members and the consumption habits of all household members. Employment, on the other hand, is an individual concept. These challenges reflect on the sources of data that can be used to compute WPR, as data is required on both poverty and employment variables together. Factors such as labour productivity and wages, percentage of workers in subsistence agriculture and employment-to-population ratio are likely to affect the value of WPR. So any analysis of it should be done in conjunction with other indicators of these variables. Trending of WPR is essential in assessing improvements in the living conditions of workers. The validity of such analysis could however be affected by factors such as changes in survey methods, the occurrence of natural and economic disasters as well as changes in agricultural conditions. Disaggregation of WPR using the variables above is useful in determining the access of different groups of workers to at least a minimum basket of goods and services. WPR is an MDG indicator for monitoring the Goal's second target (1b) on monitoring progress towards Goal 1: Eradicate extreme poverty and hunger, Target 1B: Achieve full and productive employment and Decent Work for all, including women and young people.
8. Other frameworks	MDG, KILM, DWI
9. Notes	

2.2 Labour supply (OTHER WORK ACTIVITIES)

2.2.1 Group 10: Other labour input into SNA

OWA 20: Distribution of persons contributing labour input into SNA by Industry (LISNA)

ELEMENT	DESCRIPTION
1. Definition	Distribution of persons in work activities (main activity) that contribute labour input into SNA by Industry *SNA Work activities: Employment, Own-use production of goods, Unpaid trainee/apprentice work, Volunteer work in market enterprises, Volunteer work for own-use production of goods for other households*
2. Statistics required	N_i: Number of persons in SNA work activities in Industry group i;
3. Method of Computation	$LISNA_i = N_i$ for Industry group i
4. Data Sources a. Best b. Best available c. Others	Labour Force Survey EICV(1) Population census(1), Establishment surveys(2)
5. Disaggregation 5.1 Sex 5.2 geographic 5.3 Others	 Male/Female Province, District, Residence (Urban/rural) Hours of work
6. Interpretation	$LISNA_i$ is the measure of total input (persons) into production in each industry group. It is the employment size as previously measured under the old standards of employment statistics.
7. Uses and limitations	It is used along with the value of output from each industry group to measure labour productivity. Disaggregating the indicator by any of the above variables show the contribution of each sub-group corresponding to the categories of the variable to the production in each industry. For example, using sex, a gender analysis of the contribution of women to production in each industry group vis-à-vis their male counterparts can be performed. Sector labour input can also be analysed along with sector output to obtain estimates of sector labour productivity. The analysis of growth rates in labour productivity across sectors is useful in determining those economic activities that are critical for economic growth. Analysis of the indicator in comparison with LF 3, distribution of employment by industry, the contribution of non-employment work activities to production can be measured. When this is done over time, the flows between employment and other forms of SNA work activities can be studied along with socio-economic factors that may be driving such flows.

ELEMENT	DESCRIPTION
	It should be noted that labour input is better measured in terms of volume (hours worked) rather than persons. When the latter is used, the accounting is restricted to main activity (main job for the employment component) to avoid double counting of persons with multiple activities (jobs). Using hours worked allows the computation of labour input as total time spent in all SNA work activities, including multiple jobs for the employment component. Regular computation of this indicator, as required for use in labour productivity, may however prove challenging given the lower frequency recommended for some components of SNA work activities, for example volunteer work.
8. Other frameworks	None
9. Notes	(1): This is because EICV 1 – 4 and the previous population censuses are based on the old definition of employment, which encompassed all these activities as employment. (2): Establishment surveys represent only a part of the picture as they usually do not cover all establishments. For example, many informal sector enterprises are not included.

2.3 Labour demand

2.3.1 Group 11: Vacancies & Jobs

LD 21: Vacancy rate (VR)

ELEMENT	DESCRIPTION
1. Definition	Proportion of posts in formal enterprises that are vacant *A vacant post exists if an employer before or during the reference period has taken concrete steps to find a suitable person to carry out a specific set of tasks, and would have taken on such a person if one had been available during this reference period.* *The reference period could be the past 4 weeks or a fixed date in the month.*
2. Statistics required	V: Number of vacancies in formal sector enterprises over a specified period P: Number of posts (posts plus jobs) in formal sector enterprises over the same period
3. Method of Computation	VR = 100 * V / P
4. Data Sources a. Best b. Best available c. Others	 Vacancy survey (establishments) Manpower survey Employment services & LMIS vacancy media survey for numerator (V) & RRA (number of jobs)
5. Disaggregation 5.1 geographic 5.3 Others	 Province, District, Residence (Urban/rural) Industry, Establishment size groups, Occupation, Skills required
6. Interpretation	VR measures unmet demand for labour. It gives an early indication of what is happening in the labour market in terms of the imbalance between labour demand and labour supply, signaling to some extent the presence of skills mismatch. It is also used by businesses and analysts to gauge the strength of the labour market. VR is an important macroeconomic indicator reflecting the extent of inflationary pressures in the economy.
7. Uses and limitations	The definition of vacancy follows a similar system to that of unemployment, the measure of unutilized labour supply. This can facilitate the comparison between these two concepts. It is expected that the relationship is an inverse one with VR increasing as the unemployment rate decreases and vice versa. In economic upturns, VR tends to increase whilst UR decreases and the reverse tends to happen when economic conditions worsen. The economic model used to examine the relationship between the vacancy rates and unemployment rates over time is known as the Beveridge curve. Vacancy statistics are strongly seasonal and so need to be adjusted for seasonality before analysis. Seasonal adjustment is the process of estimating and removing effects that are caused by the time of the year and arrangement of the calendar.

ELEMENT	DESCRIPTION
	Producing vacancy statistics is challenging. There are several approaches to defining a vacant job, of which the one above is just one. Then the data can be collected through employment services (reported vacancies), through advertisements placed on the media, including internet (advertised vacancies) or surveys of establishments (advertised vacancies, some job hires and unfilled posts). Each method involves difficulties of varying nature and magnitude, making their reliability impossible to guarantee at this stage. Vacancy statistics from employment services are incomplete (with low coverage rate in most countries) and suffer from bias related to the skill type of the advertised vacancies (low-to-medium). Vacancy statistics from media advertisements are also incomplete, run the risk of double counting and have limited information on the characteristics of the vacancies. Surveys are costly and, unlike the other two methods, the results are not immediate due to the time lag to process the data. No one method is therefore optimal and a judicious mix of them can yield useful results if properly controlled.
8. Other frameworks	EAC
9. Notes	

LD 22: Distribution of jobs created by Sector (Formal/Informal) and by Industry (JC)

ELEMENT	DESCRIPTION
1. Definition	Distribution of the net number of jobs created in the formal/informal sectors by industry group. *Net number of jobs is the number of jobs created less the jobs lost* *Job: Implicit or explicit contractual relationships between a person and an employer for a specific post*
2. Statistics required	J_t: Number of jobs at time t in each sector & industry cell J_{t-12}: Number of jobs at time t-12 in each sector & industry cell
3. Method of Computation	$JC_t = J_t - J_{t-12}$ in each sector & industry cell.
4. Data Sources a. Best b. Best available c. Others	Establishment surveys Manpower survey Labour force surveys, EICV
5. Disaggregation 5.1 Sex	Male/Female
6. Interpretation	JC measures the extent to which new jobs are being created. As job growth is a central objective in the EDPRS2, this indicator is thus crucial to assess the extent to which this objective is being achieved. In addition, JC identifies the sector (formal/informal) and industry in which these new jobs are being created. The identified areas can then be seen as the vibrant employment creating areas which could be signaled

ELEMENT	DESCRIPTION
	for more incentives to support their job growth.
7. Uses and limitations	The indicator however does not reflect the quality of the jobs being created. It is therefore necessary to analyze it along with other indicators such as the informal employment rate to properly assess progress on the EDPSR2 objective which signals out the need for good new jobs. The disaggregation by sex is particularly important to examine progress in gender equity in employment.
8. Other frameworks	

2.3.2 Group 13: Establishments

LD 23: Distribution of establishments by Formal/Informal sectors (NEFI)

ELEMENT	DESCRIPTION
1. Definition	Number of establishments by Formal/Informal sector expressed in a percentage distribution
2. Statistics required	NE_j: Number of establishments in j^{th} sector (j = Formal, Informal) NE: Total number of establishments
3. Method of Computation	$NEFI_j = 100 * NE_j / NE$
4. Data Sources a. Best b. Best available c. Others	 Establishment survey Manpower survey RRA/RSSB (except for Formal/Informal sector)
5. Disaggregation 5.1 Sex of owner 5.2 geographic 5.3 age of owner 5.4 Other characteristics	 Male/Female Province, District, Residence (Urban/Rural) Age group (3 groups) Size (Size: Micro, Small, Medium, Large), Industry, Institutional sector
6. Interpretation	This series of indicators describe the essential characteristics of establishments: how big, which industry, private or public, who owns them. Given that enterprises are the vehicles for job creation, the indicators present a typological map which can assist in understanding where and how jobs can be created.
7. Uses and limitations	Informal sector enterprises present a challenge for analysis over time given the high rates of turnover for such enterprises. The formal sector enterprises have a large degree of stability and can be meaningfully trended over time. The disaggregation by sex is useful in the analysis of gender differences in ownership of enterprises whilst that of age gives an indication of how youths are accepting the challenge to become entrepreneurs. The analysis by geographic variables shows in which regions growth (in jobs and possibly output) is taking place.
8. Other frameworks	
9. Notes	

2.4 CONTEXT

2.4.1 Group 14: Context

Co 24: Labour productivity (LP)

ELEMENT	DESCRIPTION
1. Definition	Labour productivity represents the total volume of output (measured in terms of GDP) achieved per unit of labour (measured in terms of employed persons in Rwanda) The labour productivity growth rate (LPG) is measured as the annual change in the ratio GDP per person employed.
2. Statistics required	GDP Total number of employed persons(E)
3. Method of computation	LP = GDP/E LPG = (100* ($LP_{year\ N} - LP_{year\ N-1}$))/ $LP_{year\ N-1}$
4.Data source a. Best b. Best available c. Others	 National account statistics and LFS National account statistics and EIVC Population Census, Other household surveys with LF module, Establishment surveys
5. Disaggregation **5.1 Industry**	Industry groups
6. Interpretation	The LP assesses the role of labour, which is one of the inputs, in production, measured by GDP Analysing labour productivity growth together with employment indicators, for example, the employment-to-population ratio or the unemployment rate can inform about labour utilization. For instance, a combination of low labour productivity with low unemployment and a rising GDP can point to high labour utilization.
7. Use and limitations	The main limitation of labour productivity as an indicator lies in the fact that it associates changes in output with only one factor of production, labour. Most significantly, the amount of capital used by labour or changes in that capital is/are not taken into account. However, investment in technology, human capital and increase in inputs other than labour can affect labour productivity growth.
8. Other frameworks	EAC, KILM, DWI
9. Notes	Labour productivity is also MDG indicator 1.4 for monitoring progress towards Goal 1: Eradicate extreme poverty and hunger, Target 1B: Achieve full and productive employment and DW for all, including women and young people.

Co 25: Labour income share of gross value added (LS)

ELEMENT	DESCRIPTION
1. Definition	Labour income share of GDP is the ratio of total compensation of employees to the GDP
2. Statistics required	Total compensation of all employees (TC) GDP
3. Method of computation	LS = 100*TC/GDP
4.Data source a. Best b. Best available c. Others	 National accounts estimates of labour share of GDP None
5. Disaggregation 5.1 Industry	 Industry groups
6. Interpretation	The purpose of the labour income share of GDP is to measure how much of the gross value added accrues to labour.
7. Use and limitations	In general, labour share in GDP will underestimate the proportion of gross value added accrued to labour, as it covers only the compensation of employees and not that of the self-employed. In order to interpret this indicator effectively, it is important to consider it together with GDP trends. For instance, if the labour share in GDP is declining in the midst of economic growth, this can be interpreted as stagnation or slower growth in wage and/or in employment
8. Other frameworks	ILOSTAT
9. Notes	

Co 26: Employment elasticity (EE)

ELEMENT	DESCRIPTION
1. Definition	EE is the growth of employment relative to growth of GDP
2. Statistics required	GE: Growth of employment GG: Growth of GDP
3. Method of computation	EE = 100*GE/GG
4.Data source a. Best b. Best available c. Others	 National accounts, and LFS National accounts, and EICV
5. Disaggregation	Industry groups
6. Interpretation	Employment elasticity seeks to measure the employment intensity of output growth and may provide insights regarding changes in the EPR vis-à-vis GDP growth.
7. Use and limitations	Such elasticity can be disaggregated by economic activity for a more targeted analysis. In particular, it may inform employment

ELEMENT	DESCRIPTION
	promotion policies by guiding investment to those industries with greater employment elasticities. Elasticity volatility may be an issue, which requires caution in the interpretation of results.
8. Other frameworks	
9. Notes	

Co 27: Inflation rate (CPI)

ELEMENT	DESCRIPTION
1. Definition	The inflation rate or consumer price index (CPI) is a summary indicator "designed to measure changes over time in the general level of prices of goods and services that a reference population acquires, uses or pays for"
2. Statistics required	
3. Method of computation	The CPI is constructed as a weighted average of a large number of elementary aggregate indices. Each of the elementary aggregate indices is estimated using a sample of prices for a defined set of goods and services obtained in, or by residents of, a specific region from a given set of outlets or other sources of consumption goods and services. Given the multiple uses of the CPI, there are various ways of constructing it. The CPI can be constructed as a fixed-basket price index where the change in the price of a basket of goods and services, representative of a household's consumption pattern for a reference period, is monitored
4.Data source a. Best b.Best available c. Others	 Economic statistics Economic statistics
5. Disaggregation 5.2 Geographical	Area of residence (Urban, rural)
6. Interpretation	The CPI measures price movements (i.e. relative changes) and not absolute price levels In addition to the index level showing the change from the index reference period, it is also useful to present derived indices, such as the one that shows changes in the major aggregates between:

ELEMENT	DESCRIPTION
	(i) the current month and the previous month; (ii) the current month and the same month of the previous year; and (iii) the average of the latest 12 months and the average of the previous 12 months. The indices should be presented in both seasonally adjusted and unadjusted terms.33 As significant differences in the expenditure patterns and/or price movements between specific population groups or regions may exist, especially in the developing countries, separate indices for these population groups or regions may be computed.
7. Use and limitations	The CPI is not a complete measure reflecting all price changes in an economy. The CPI does reflect the development of the prices of the items that particular individuals or households buy during the same period, as it is designed to represent the average experience of all private households. Variations from one individual/household to another can be important relative to this average. It does not measure the "cost of living" as understood with reference to economic theory on consumers' behaviour. Regional CPIs cannot be used to compare differences in price levels or living costs between one place and another, they measure only the changes that take place in each place over time.
8. Other frameworks	ILOSTAT
9. Notes	

Chapter 3: Priority 2 Indicators

3.1 LABOUR SUPPLY (LABOUR FORCE)

3.1.1 GROUP 1 - Population

LF 1: Distribution of working age population by age, sex and labour force status

ELEMENT	DESCRIPTION
1. Definition	The (joint) distribution of LF_{ij} and WAP_{ij}, where, For each age group, i, and each sex, j, LF_{ij} is the number of persons in the labour force and WAP_{ij} is the number in the working age population. *The working age population is the total population in a country, within a set range of ages that is considered to be able and likely to work. The official working age population in Rwanda is 16 years and above.* *The labour force consists of persons who are either employed or unemployed.*
2. Statistics required	LF_{ij} WAP_{ij}
3. Method of computation	None
4.Data source a. Best b. Best available c. Others	 Labour force surveys EICV Population Census, Other household surveys with LF module
5. Disaggregation geographical	Residence (urban/rural
6. Interpretation	The working age population represents the pool of potential labour resources for the production of goods and services in the economy at any one point in time, whilst the labour force is that component of the working age population who are either supplying or seeking to supply their labour. The joint distribution illustrates how this component varies across the ages and between the sexes.
7. Use and limitations	The joint distribution indicates the extent to which persons of either sex are active in the labour market at each age group relative to the population in that age group. This is particularly useful at either end of the working age range in understanding at what age most persons enter the labour market and when they leave it. Also, with the open-ended upper age limit for the working age population, it provides a practical guide as to when persons at

ELEMENT	DESCRIPTION
	older ages realistically leave the labour market. The joint distribution is important for making projections of the labour force over time. Changes in the distribution come from new entrants (from those below the minimum age and from immigration) as well as exits (from deaths and emigration). The analysis of the joint distribution gives an indication of how the country is successful or unsuccessful in integrating persons at the different age ranges of the working age population into its labour force. It is therefore useful for policy formulation in terms of targeting those age ranges that are considered to be crucial, e.g. the core working ages of 25 – 54 years. A useful tool in analysis is to construct an age pyramid of the working age population by sex with the rectangle for each age group sub-divided into those in the labour force and those out of the labour force. The movement over time from the traditional pyramid, through the 'bulge' into the up-turned pyramid mimics the development process.
8. Other frameworks	**ILOSTAT**
9. Notes	

LF 2: Dependency ratio: (DR)

ELEMENT	DESCRIPTION
1. Definition	The dependency ratio is the ratio of population who are not working to the working population.
2. Statistics required	WA: Number of persons in the key working age population (16-64) OWA: Number of persons outside the key working age population. (0-15) and (65 and above)
3. Method of computation	DR= OWA/WA
4.Data source a. Best b. Best available c. Others	 Population Census, Labour force surveys EICV Other household surveys with age distribution data
5. Disaggregation 5.1 sex 5.2 geographical	 Male/Female Province, district and residence (urban/rural)
6. Interpretation	The dependency ratio may be interpreted as the number of dependents on average that persons with the potential to work must provide for in the society. The higher is the ratio the higher is the burden on those with the potential to work. A high dependency ratio can cause serious problems for a country since a large proportion of government's expenditure on health, social security & education are mostly taken up by the youngest

ELEMENT	DESCRIPTION
	and the oldest in a population. The fewer people of working age, the fewer the people who can support schools, retirement pensions, disability pensions and other social assistances to the youngest and oldest members of a population, often considered the most vulnerable members of society.
7. Use and limitations	The dependency ratio ignores the fact that the 65+ are not necessarily dependent (an increasing proportion of them is working) and that many of those of 'working age' are actually not working. Alternatives have been developed', such as the 'economic dependency ratio', but they still ignore factors such as increases in productivity and in working hours. Also a low dependency ratio may be caused by high rates of immigration, as most immigrants come into a country during their working ages. This may portend future challenges for social assistance in the future. Conclusions about the significance of changes in the (demographic) dependency ratio should thus be made with caution.
8. Other frameworks	
9. Notes	

3.1.2 Group 3 – Employment

LF 3: Distribution of employed population by occupation (EO_i)

ELEMENT	DESCRIPTION
1. Definition	Proportion of employed population in each 1 digit group of occupation as defined in Chapter 1, §4.1.
2. Statistics required	O_i : Number of employed population in occupation i E: Number of employed population
3. Method of computation	$EO_i = 100* O_i/E$
4.Data source a. Best b. Best available c. Others	 Labour force surveys EICV Population Census, Other household surveys with LF module; Manpower survey, Establishment censuses; RSSB, RRA
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Educational attainment, industry, status in employment, institutional sector, migration status
6. Interpretation	The distribution of employed population by occupation provides information on the relative importance of different occupations in the economy.
7. Use and limitations	Occupational statistics are used for analysis of a wide variety of topics including educational planning, migration, employment services, occupational safety and health as well as labour market segmentation. They are also useful for constructing occupational employment projection models that are used to inform policies aimed at meeting future skills needs, as well as to advise students and jobseekers on expected job prospects. Information on the distribution of employment by occupation is particularly useful for identifying broad shifts in employment at different stages of development. These shifts over time would indicate labour flows from one occupational group for example, elementary occupations to other such as professionals and technicians or craft and related trade occupation. Employment by occupation should be interpreted in combination with indicators on urban-rural migration as the labour flows may coincide with such migration. The disaggregation by sex or age gives an indication of the degree of differences in the distribution of occupation amongst the employed population defined by these variables. For example it may be found that some occupations are

ELEMENT	DESCRIPTION
	mostly occupied by females while others are mostly dominated by males; which reflect occupational segregation. Analysis of occupation by educational attainment is useful for assessing skills challenges in the economy and over time for identifying changes in skill levels in the labour force.
8. Other frameworks	**ILOSTAT, EAC, KILM**
9. Notes	

LF 4: Distribution of employed population by working time bands

- **Excessive hours**

ELEMENT	DESCRIPTION
10. Definition	Percentage of the employed population whose weekly hours actually worked fell in different time bands (EWT_t). *Definition of hours actually worked is in Chapter 1, §3.8.* *Definition of employment is in Chapter 1, §3.3.* *International standards[14] recommend that time bands should be 4 or 5 hours bands including the following: < 15hours; 40 hours; Up to and including 48 hours; 60 hours or more. One possibility is to use the following: (1) no hours actually worked, (2) 1–14 hours, (3) 15–29 hours, (4) 30–34 hours, (5) 35–39 hours, (6) 40–48 hours, (7) 49-59 hours, and (8) 60 hours or more.*
11. Statistics required	E_t: The number of employed persons whose weekly hours actually worked fell in time band t. E: Total number of employed persons
12. Method of Computation	$EWT_t = 100 * E_t / E$
13. Data Sources a. Best b. Best available c. Others	 Labour force surveys EICV Other household surveys with LF module
14. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Status in employment, institutional sector, industry, occupation, other household-related variables, e.g. number of dependents less than 5 years old

[14] ILO: *Resolution concerning the measurement of working time*, adopted by the Eighteenth International Conference of Labour Statisticians: http://www.ilo.org/wcmsp5/groups/public/---dgreports/---stat/documents/normativeinstrument/wcms_112455.pdf

ELEMENT	DESCRIPTION
15. Interpretation	This indicator gives information on the distribution of time spent at work by employed persons and so indirectly assesses time available to employed persons for other activities. Time spent at work is an important input into production and so useful in understanding and analysing productivity measures. In excess, it can have a negative effect on the health, well-being and social relations of employed persons as well as on their productivity. For example, it can impact on their family and community life. Measuring the distribution of working time in a society, for different groups of persons, is therefore important when monitoring working and living conditions as well as for analysing economic and broader social developments.
16. Uses and limitations	Time spent at work is influenced by many factors including business cycle, employment policy, social and cultural influences. Changes in working time can come from downturns or upturns in the economy when businesses and persons make adjustments to accommodate the change in their circumstances. Disaggregation by any of the above variables permits analysis of differences in working patterns between the subpopulations identified by the different values of the variable. For example, disaggregation by sex helps in understanding gender differences in time-worked by men and by women, possibly explained by the influence of family responsibilities on these roles.The two ends of the distribution are of particular interest. At the lower end, persons who work few hours per week may be experiencing time-related underemployment or may be doing so voluntarily. This distribution is therefore key in any measurement of time-related underemployment. At the other end, persons who work long hours per week are said to have excessive hours of work. The recommended cut-off for purposes of international comparability is 49 hours or more. Excessive hours may be due to low levels of income and poverty. Analysis by income from employment is therefore useful. Excessive hours can also be counter-cyclical. To understand this phenomenon, it is necessary to analyse the indicator by industry, status in employment categories and contract duration. During downturns, temporary workers get laid off and those remaining have to work extra long hours, thereby increasing the value of this sub-indicator. Finally, excessive hours of work indicate poor quality of employment as it negatively impacts on the balance between work and family life. The quality of data on working time of self-employed persons is not as high as that of employees, especially for those in the informal sector. It is therefore useful to analyse them separately.
8. Other frameworks	ILOSTAT, EAC, KILM, DWI
17. Notes	

LF 5: Average weekly hours worked

ELEMENT	DESCRIPTION
1. Definition	This is the average number of weekly hours actually worked per employed person (AH). *-Definition of hours actually worked is in Chapter 1, §3.8.* *-Definition of employment is in Chapter 1, §3.3.*
2. Statistics required	TH: Total number of hours actually worked per week NE: Number of employed person
3. Method of computation	AH = TH/NE
4.Data source a. Best b. Best available c. Others	 Labour force surveys EICV Manpower survey, Establishment surveys
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 industry 5.5 occupation 5.6 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Each 1-digit group of industry Each 1-digit group of occupation Status in employment, institutional sector, educational attainment, formal/informal sectors, formal/informal employment
6. Interpretation	The indicator provides information on the working time of employed persons, a measure of the aggregate level of labour utilization. It reflects the labour input of employed persons across the working time distribution (short hours, average hours, long hours) and so is preferable to a simple count of the employed as a measure of labour input. Time spent at work is an important input into production and so useful in understanding and analysing productivity measures. It may have a negative effect on the health, well-being and social relations of employed persons as well as on their productivity. For example, it can impact on their family and community life. Measuring the levels of working time in a society, for different groups of persons and of industries and of occupations, is therefore important when monitoring working and living conditions as well as for analysing economic and broader social developments.
7. Use and limitations	Unless the average is based on time periods covering the whole year, average weekly hours actually worked can be affected by temporary reductions in working time as a result of holiday, illness, etc. as well as seasonal effects. Otherwise, the indicator can be used as a basis for computing average annual working time per employed person.

ELEMENT	DESCRIPTION
	When analysed jointly with output, the indicator sheds light on labour productivity. In particular the disaggregation by industry enables the computation of sector level labour productivity measures. Also, the disaggregation by industry (or occupation) identifies those industries (occupations) in which the average weekly working time is in excess of what is considered to be an acceptable level for this indicator. This could be a pointer to industries (occupations) with poor quality of employment and decent work. Disaggregation by any of the other above variables permits analysis of differences in working patterns between the subpopulations identified by the different values of the variable. For example, disaggregation by sex helps in understanding gender differences in time-worked by men and by women, possibly explained by the influence of family responsibilities on these roles. It should be noted that when disaggregating this indicator, both the numerator and the denominator should be computed separately for the different values of the relevant variable. Time spent at work is influenced by many factors including business cycle, employment policy, social and cultural influences. Changes in working time can come from downturns or upturns in the economy when businesses and persons make adjustments to accommodate the change in their circumstances. The analysis of this level indicator should take these factors into consideration. The quality of data on working time of self-employed persons is not as high as that of employees, especially for those in the informal sector. It is therefore useful to analyse them separately.
8. Other frameworks	ILOSTAT, KILM, DWI
9. Notes	

3.1.3 Group 4 – Labour Underutilization

LF 6: Long-term unemployment rate (LUR)

ELEMENT	DESCRIPTION
1. Definition	It is the number of unemployed persons with continuous periods of unemployment (i.e. duration of unemployment) exceeding one year (52 weeks) expressed as a percentage of the labour force.
2. Statistics required	NULD: Number of unemployed persons with duration of unemployment exceeding 1 year L: Labour force
3. Method of Computation	LUR = 100 * NULD / L
4. Data Sources a. Best b. Best available c. Others	 Labour force survey EICV None
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district, residence Age group Educational attainment
6. Interpretation	Long-term unemployment indicates the inability of the economy to provide jobs for persons who have been unemployed for a long period of over 1 year. It shows a long-term deficiency in the supply of jobs in the economy and often a poor record of employment creation. In the absence of unemployment benefits, persons usually are willing to take on any job for survival reasons. So for persons to remain unemployed for such a long period without benefits point to a really desperate situation in the labour market, far and beyond that of short-term unemployment. LUR tends to rise with economic downturns.
7. Uses and limitations	Long-duration unemployment has undesirable effects on a person's income, social standing and employability. The longer a person is unemployed, the lower his or her chances of finding a job. It is clearly related to the personal characteristics of the unemployed, and often affects older or unskilled workers, and those who have lost their jobs through redundancy. Disaggregation by age, sex, educational attainment and geographical location would contribute in profiling persons at risk. High ratios of long-term unemployment would then indicate serious unemployment problems for these groups in the labour market. Data on LUR is however not usually of good quality as it relies heavily on memory recall of duration of unemployment. When unemployed persons

ELEMENT	DESCRIPTION
	are interviewed, their ability to recall with any degree of precision the length of time that they have been jobless diminishes significantly as the period of joblessness extends. Moreover, if the household respondent is a proxy for the unemployed person, the specific knowledge and the ability to recall are reduced even further. Also as the jobless period lengthens, it is also more likely to have been interrupted by limited periods of work or spells of discouragement, but either this is forgotten over time or the unemployed person may not consider that work period as relevant to his or her "real" unemployment problem.
8. Other frameworks	EAC, KILM
9. Notes	

LF 7: (Former) Relaxed Unemployment Rate (RUR)

ELEMENT	DESCRIPTION
1. Definition	Persons who are either unemployed or who want employment but existing conditions limit their job search as a percentage of the 'labour force'. *The 'labour force' is defined as the sum of the labour force as defined in Chapter 1, §3.3 plus those who want employment but existing conditions limit their job search.*
2. Statistics required	RUN: Number of persons who are unemployed or who want employment but existing conditions limit their job search, ELF: Total number of persons in the labour force or who want employment but existing conditions limit their job search.
3. Method of Computation	RUR = 100 * RUN / ELF
4. Data Sources a. Best b. Best available c. Others	Labour force surveys EICV Other household surveys with LF module
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district and residence (urban/rural) Age group Educational attainment, migrant status, marital status & other variables that may be explanatory variables for employment activity

ELEMENT	DESCRIPTION
6. Interpretation	In the international standards adopted in 1982, RUR was recognized as a viable alternative measure of unemployment for countries in which mechanisms did not generally exist for persons to seek work. The new international standards on measuring employment no longer recognize RUR in this sense. It is however presented as one of the recommended indicators for assessing labour underutilization. RUR is a measure of imbalance in the labour market in terms of the extent of non-utilization of all available labour supply in the economy. It measures the extent to which pressure is being applied to the labour market by persons available to work. It reflects the inability of the economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment. Thus, RUR is an indicator of the efficiency and effectiveness of an economy to absorb its available labour supply, and so its use is extended to an indicator of the health of the economy. To the extent that being employed reflects social standing, RUR is also a measure of social and community well-being. Progress is therefore measured by a declining trend towards acceptably low RUR levels.
7. Uses and limitations	RUR takes into account the unemployed and some persons marginally attached to the labour force. This broad measure gives a more comprehensive picture of the non-utilization of the potential labour supply within the economy than the unemployment rate, although not as much as the labour underutilization rate. In fact, the concept of unemployment has its roots in macroeconomic analysis and policies. Its main objective has been to signal deficiencies in the use of available labour resources by capturing situations of total lack of employment among persons who are seeking and available for employment. However, where conditions are such that the conventional means of seeking work are of limited relevance, where expectations regarding employment are not matched by the available vacancies, or where there is simply no labour market, people may become discouraged or remain outside of the labour market even though they are available for work. In these instances, responses to labour market downturns do not translate to this type of unemployment alone. Assessing the efficiency and effectiveness of the labour market to generate employment for all those who want it should then extend to this larger group. Disaggregating RUR by demographic characteristics such as age, sex and educational attainment is useful in identifying groups of persons vulnerable to this 'relaxed' definition of unemployment. RUR is relatively volatile and so measured monthly or quarterly in most

ELEMENT	DESCRIPTION
	developed, statistically advanced economies. The usefulness of RUR as an indicator of labour market performance depends on the level of development of a country. In situations where unemployment insurance and other unemployment relief schemes or social safety nets are limited or non-existent, persons of working age are obliged to engage in some form of work usually in the informal economy and in self-employment characterized by poor working conditions and inadequate social protection. Thus it is important to analyse RUR along with other indicators of labour underutilization such as measures of labour slack, of informal employment and of income-related inadequate employment situations. Analysis of RUR by any of the above disaggregated variables provides a useful profile with regard to the lack of employment opportunities for persons within the population sub-groups represented by the different categories of the variable and to the extent of the discrimination they may suffer in the labour market. When analyzing RUR over time, it is advisable to seasonally adjust it to filter out usual seasonal fluctuations and typical calendar effects within the movements of the time series under review.
8. Other frameworks	None
9. Notes	

3.1.4 Group 5 – Wages

LF 8: Average hourly earnings of employees by deciles

ELEMENT	DESCRIPTION
1. Definition	Grouped distribution of mean hourly earnings of employees by deciles *Earnings include direct wages and salaries, remuneration for time not worked (excluding severance and termination pay), bonuses and gratuities and housing and family allowances paid by the employer directly.* *Coverage should be all jobs of full-time and part-time workers.* *Earnings are gross before deductions for social security contributions, tax, etc.*
2. Statistics required	EE_i: Earnings for all jobs for employee i for a specified period HE_i: Total hours worked in all jobs by employee i for the same period
3. Method of Computation	$AHEE_i = EE_i / HE_i$ for each employee i The employees should be ordered by increasing values of $AHEE_i$ and then divided into 10 segments, each containing the same number of employees. Each decile is the highest value of $AHEE_i$ for employees in that segment. The mean of $AHEE_i$ for employees in that segment should also be presented.
4. Data Sources a. Best b. Best available c. Others	 Labour force surveys with earnings module EICV; Manpower survey RSSB, RRA
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Educational attainment, migrant status, industry, other variables that may be explanatory variables for earnings
6. Interpretation	The distribution of $AHEE_i$ reveals the pattern of hourly earnings of employees. Earnings constitute the largest component of the resources available to employees' households to purchase goods and services for their consumption. $AHEE_i$ is thus a valuable indicator for employees themselves as well as for policy-makers.

ELEMENT	DESCRIPTION
7. Uses and limitations	The distribution is useful in revealing any inequality in the distribution of hourly earnings amongst employees. The ratio of D_9, the ninth decile, to D_1, the first decile, is a summary measure of this inequality which is useful in comparisons across groups or over time. Analyzing the distributions of $AHEE_i$ across any of the disaggregated variables shows differences in the pattern of hourly earnings among workers within the population sub-groups represented by the different categories of the variable. For, example using sex, the distributional differences in hourly earnings between men and women can be analyzed. The analysis using educational attainment and age are particularly interesting as these are two of the main determinants of income. Comparison of the distributions of hourly earnings over time, suitably adjusted for changes in inflation, indicate the material progress (or regression) of the working population. The key summary statistics in this comparison are shifts in location and shape statistics over time.
8. Other frameworks	ILOSTAT
9. Notes	

3.1.5 Group 6 – Skills

LF 9: Literacy rate of the labour force (LRL)

ELEMENT	DESCRIPTION
1. Definition	The percentage of persons in the labour force who are literate. *Literacy is defined as the skills to read and write a simple sentence about everyday life.*
2. Statistics required	LF: Number of persons aged 16 years and above who are in labour force. LFL : Number of persons in the labour force who are literate.
3. Method of computation	LRL = 100 * LFL / LF
4.Data source a. Best b. Best available c. Others	 Labour Force Survey EICV Population Census
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age	 Male/Female Province, district and residence (urban/rural) Age group
6. Interpretation	The indicator complements the Priority 1 indicator, LF13, on educational attainment of the labour force. Increasingly economic growth depends on the availability of basic skills in the labour force to contend with the high level of sophistication of machinery and technology used in production. The literacy rate is a useful proxy for possession of these basic skills. Thus the literacy rate of the labour force is one indication of the extent to which Rwanda can make its way in the global economy. It is a measure of the quality of the labour force.
7. Use and limitations	The analysis by age group would indicate whether the youth labour force is in a better skills position than the older labour force, which portends well for the future. Disaggregation by sex allows investigating any gender differences in the literacy rates of men and women in the labour force. Using age and sex together enriches this analysis. Analysis of LRL over time assesses whether the quality of the labour force is improving. Disaggregation by any of the geographical variables would bring up differences in the quality of the labour force, in terms of basic skills, across the sub-populations identified by the values of the variable.
8. Other frameworks	**KILM**
9. Notes	

3.1.6 Group 7 – Employment Equity & Industrial Relations

LF 10: Share of women in non-agricultural paid employment (SWP)

ELEMENT	DESCRIPTION
1. Definition	The SWP is the number of women in paid employment in the non-agricultural sector as a percentage of total paid employment in the non-agricultural sector. *The non-agricultural sector refers to all economic activities excluding agriculture (ISIC, Revision 4 section A).*
2. Statistics required	NW: Number of women in paid employment in non-agriculture sector TNE: Total number of persons in paid employment in non-agriculture sector.
3. Method of computation	SWP = 100* NW/TNE
4.Data source a. Best b. Best available c. Others	 Labour force surveys EICV Population Census, Manpower survey, RSSB, RRA
5. Disaggregation 5.1 geographical 5.2 age 5.3 other characteristics	 Province, district and residence (urban/rural) Age group Educational attainment, Marital status, Migrant status and specific non-agricultural economic activity groups.
6. Interpretation	As development increases, production tends to move away from the agricultural sector towards the non-agricultural sectors. At the same time, employment also moves towards paid employment jobs. Thus the share of these jobs in these non-agricultural sectors going to women reflects the extent of their participation in the development process. Such participation should lead to their integration into the monetary economy and their benefiting from a more regular and largely monetary income. This in turn would be expected to have a positive impact on women's autonomy and decision-making powers. The indicator may vary from 0 (only men) to 100 per cent (only women). Equal numbers of women and men in the sectors would give an indicator value of 50 per cent. Progress is assessed by an increase in the value of the indicator (often aiding poverty reduction).
7. Use and limitations	Disaggregation by any of the above variables contributes to the profiling of women's participation in the development process and their having a fair access to 'good' jobs. This indicator is clearly not sufficient in describing the situation of women in the labour market, especially when such 'good' jobs are in limited supply. It should therefore be analysed along with other indicators such as

	the share of women in total employment – by status in employment, level of education, level of remuneration, wage differentials, as well as occupational segregation. Their situation with respect to labour underutilization and the potential labour force should also be investigated to complete the picture.
8. Other frameworks	**DWI**
9. Notes	It is MDG indicator 3.2, under Target 3A: Eliminate gender disparity in primary and secondary education, preferably by 2005 and in all levels of education no later than 2015 and Goal 3: Promote gender equality and empower women.

LF 11: Share of youth in non-agricultural paid employment (SYP)

ELEMENT	DESCRIPTION
1. Definition	The SYP is the number of youths in paid employment in the non-agricultural sector as a percentage of total paid employment in the non-agricultural sector.
2. Statistics required	NY: Number of youths in paid employment in non-agriculture sector TNE: Total number of persons in paid employment in non-agriculture sector.
3. Method of computation	SYP = 100* NY/TNE
4.Data source a. Best b. Best available c. Others	 Labour force surveys EICV Population Census, Manpower survey, RSSB, RRA
5. Disaggregation 5.1 sex 5.2 geographical 5.3 other characteristics	 Male/Female Province, district and residence (urban/rural) Educational attainment
6. Interpretation	As development increases, production tends to move away from the agricultural sector towards the non-agricultural sectors. At the same time, employment also moves towards paid employment jobs. Thus the share of these jobs in these non-agricultural sectors going to youths reflects the extent of their participation in the development process. Such participation should lead to their integration into the monetary economy and their benefiting from a more regular and largely monetary income. This in turn would be expected to have a positive impact on the autonomy and decision-making powers of youths. The indicator may vary from 0 (only adults) to 100 per cent (only youths). Progress is assessed by an increase in the value of the indicator.

7. Use and limitations	Disaggregation by any of the above variables contributes to the profiling of youth's participation in the development process and their having a fair access to 'good' jobs. This indicator is clearly not sufficient in describing the situation of youths in the labour market, especially when such 'good' jobs are in limited supply. It should therefore be analysed along with other indicators such as the share of youths in total employment by level of education. Their situation with respect to labour underutilization and the potential labour force should also be investigated to complete the picture.
8. Other frameworks	
9. Notes	

LF 13: Gender wage gap (GWG)

ELEMENT	DESCRIPTION
1. Definition	The relative difference between the average hourly pay for male employees and the average hourly pay for female employees.
2. Statistics required	W_m: Average hourly earnings of male employees F_m: Average hourly earnings of female employees
3. Method of Computation	$GWG = 100 * (W_m - F_m) / W_m$
4. Data Sources	
a. Best	Labour force survey with an earnings module
b. Best available	EICV
c. Others	Manpower survey, Other household survey with employment and earnings modules, RSSB, RRA
5. Disaggregation	
5.1 age	Age groups
5.2 occupation	1-digit occupational classification groups
5.3 industry	1-digit industrial classification of economic activities groups
5.4 other characteristics	Educational attainment, institutional sector and other such variables that are determinants of income
6. Interpretation	The indicator reflects the relative earnings differential between male and female employees. A value of 0 means there is on average no difference in earnings between the sexes. Increasing positive values of the indicator reveal the extent to which the earnings of female employees are falling short of their male counterparts. Negative values indicate the opposite, female employee earnings are higher than their male counterparts.
7. Uses and limitations	Difference in earnings may be due to many factors relating to the distribution of male and female employees by work experience, educational attainment, access to paid employment and so on. Thus to properly attribute the differences to sex, it is necessary to first control for

ELEMENT	DESCRIPTION
	these factors. Disaggregation by age (as proxy for experience) and educational attainment is thus important. Another possibility is to fit the Mincer regression model with age, sex and educational attainment as factors. Disaggregation by industry, occupation or institutional sector locates those sore points in which the wage gap is widest amongst the relative subpopulations. A challenge in the production of this indicator is the quality of earnings data, even for employees, from labour force surveys. On the other hand, whilst earnings data from establishment surveys or administrative sources are more likely to be accurate, their coverage is usually very limited. The indicator is dealing with only one part of the employed population, i.e. employees. This is therefore not the whole picture. Differences in employment income of male and female self-employed persons may present an even wider gap, especially for informal sector own-account owners.
8. Other frameworks	DWI
9. Notes	

3.1.7 Group 8 – Safe Work & Social Protection

LF 14: Fatal occupational injury rate (FIR)

ELEMENT	DESCRIPTION
1. Definition	The fatal occupational injury (incidence) rate is calculated as the number of new cases of fatal injury during the reference year divided by the average number of workers in the reference group during the reference year. *Fatal occupational injury: An occupational injury leading to death within one year of the day of the occupational accident.* *Occupational injury: A personal injury, disease or death resulting from an occupational accident* *Occupational accident: An unexpected and unplanned occurrence arising out of or in connection with work.* *Case of fatal occupational injury: The case of a worker with a fatal occupational injury as a result of one occupational accident* *Reference group: The group of workers under consideration, e.g. female workers, agriculture workers*
2. Statistics required	NCF: New cases of occupational fatalities in the reference group for the reference year NREFW: Average number of workers in the reference group during the reference year
3. Method of Computation	FIR = 100,000 * NCF / NREFW
4. Data Sources a. Best b. Best available c. Others	 National notification systems RSSB, MIFOTRA (labour inspection records)
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district, residence Age groups Occupation, Industry
6. Interpretation	This indicator assesses the risk of occupational fatalities in relation to the number of workers at risk. However, given the different working time of these workers, it does not fully take into account this risk factor. Thus, if possible, the indicator should be computed in terms of the number of full-time equivalent workers.

ELEMENT	DESCRIPTION
7. Uses and limitations	Data on occupational injuries are essential for planning preventive measures. Workers in occupations and activities of highest risk can be targeted more effectively for inspection visits, development of regulations and procedures and for safety campaigns. The disaggregation of the indicator by sex is important for the formulation of these preventive measures, as women and men do very different jobs and so face different hazards. Similarly, exposures to accidents vary between industries, occupations and age groups. Hence the importance of disaggregating the indicator by these factors. When measured over a period of time, the data can reveal progress or deterioration in occupational safety and health, and thus the effectiveness of prevention measures. As much as possible the indicator should cover all workers, both employees and the self-employed. It should also relate to the whole country and to all sectors and industries. However, when disaggregated, the indicator would refer only to all workers in the identified reference group, e.g. all female workers, all workers in the mining industry. Both the numerator and denominator would then also be determined in relation to the same reference group. Given that fatalities are usually a rare occurrence, the reference period that is used to compile the statistics should be sufficiently long to capture reasonable numbers, especially if the indicator is to be disaggregated by sub-groups. International standards propose a reference period of 1 year, as indicated in the above definition. However, it may be useful to also use a longer reference period of 5 years in the analysis. It should also be acknowledged that a rise or fall in the number of cases of occupational fatalities over time may reflect not only changes in occupational safety and health conditions, but also modifications in reporting procedures or data collection methods, or revisions to regulations governing the reporting or compensation of occupational fatalities. In analysing variation over time, it should be appreciated that this indicator is volatile and strong annual fluctuations may occur due to unexpected but significant accidents or national calamities. The analysis should therefore be of the underlying trend, after corrections for these variations.
8. Other frameworks	ILOSTAT, EAC, DWI
9. Notes	• ILO. Resolution concerning statistics of occupational injuries (resulting from occupational accidents), adopted by the Sixteenth International Conference of Labour Statisticians (October 1998). http://www.ilo.org/global/statistics-and-databases/standards-and-

ELEMENT	DESCRIPTION
	guidelines/resolutions-adopted-by-international-conferencesof-labour-statisticians/WCMS_087550/lang--en/index.htm • Taswell, K. and Wingfield-Digby, P. Occupational injuries statistics from household surveys and establishment surveys: An ILO manual on methods. Geneva, 2008.

LF 15: Non-fatal occupational injury rate (NFIR)

ELEMENT	DESCRIPTION
1. Definition	The non-fatal occupational injury (incidence) rate is calculated as the number of new cases of non-fatal injury during the reference year divided by the average number of workers in the reference group during the reference year. *Occupational injury: A personal injury, disease or death resulting from an occupational accident* *Non-fatal occupational injury: An occupational injury that does not result in death.* *Occupational accident: An unexpected and unplanned occurrence arising out of or in connection with work.* *Case of non-fatal occupational injury: The case of a worker with a non-fatal occupational injury as a result of one occupational accident* *Reference group: The group of workers under consideration, e.g. female workers, agriculture workers*
2. Statistics required	NC: New cases of non-fatal occupational injuries in the reference group for the reference year NREFW: Average number of workers in the reference group during the reference year
3. Method of Computation	NFIR = 100,000 * NC / NREFW
4. Data Sources a. Best b. Best available c. Others	 National notification systems RSSB, MIFOTRA (labour inspection records)
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district, residence Age groups Occupation, Industry

ELEMENT	DESCRIPTION
6. Interpretation	This indicator assesses the risk of non-fatal occupational injuries in relation to the number of workers at risk. However, given the different working time of these workers, it does not fully take into account this risk factor. Thus, if possible, the indicator should be computed in terms of the number of full-time equivalent workers.
7. Uses and limitations	Data on occupational injuries are essential for planning preventive measures. Workers in occupations and activities of highest risk can be targeted more effectively for inspection visits, development of regulations and procedures and for safety campaigns. The disaggregation of the indicator by sex is important for the formulation of these preventive measures, as women and men do very different jobs and so face different hazards. Similarly, exposures to accidents vary between industries, occupations and age groups. Hence the importance of disaggregating the indicator by these factors. When measured over a period of time, the data can reveal progress or deterioration in occupational safety and health, and thus the effectiveness of prevention measures. As much as possible the indicator should cover all workers, both employees and the self-employed. It should also relate to the whole country and to all sectors and industries. However, when disaggregated, the indicator would refer only to all workers in the identified reference group, e.g. all female workers, all workers in the mining industry. Both the numerator and denominator would then also be determined in relation to the same reference group. It should also be acknowledged that a rise or fall in the number of cases of non-fatal occupational injuries over time may reflect not only changes in occupational safety and health conditions, but also modifications in reporting procedures or data collection methods, or revisions to regulations governing the reporting or compensation of non-fatal occupational injuries. In analysing variation over time, it should be appreciated that this indicator is volatile and strong annual fluctuations may occur due to unexpected but significant accidents or national calamities. The analysis should therefore be of the underlying trend, after corrections for these variations. For a more comprehensive analysis, the indicator should be analysed along with the severity of the injuries, measured in terms of days lost. The indicator is based on the number of new cases of injuries. So a worker who suffers from more than one injury during the reference period should be counted as many times as the injuries occurred during the reference period.

ELEMENT	DESCRIPTION
8. Other frameworks	ILOSTAT, EAC, DWI
9. Notes	• ILO. Resolution concerning statistics of occupational injuries (resulting from occupational accidents), adopted by the Sixteenth International Conference of Labour Statisticians (October 1998). http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferencesof-labour-statisticians/WCMS_087550/lang--en/index.htm • Taswell, K. and Wingfield-Digby, P. Occupational injuries statistics from household surveys and establishment surveys: An ILO manual on methods. Geneva, 2008.

LF 16: Rate of occupational diseases (ROD)

ELEMENT	DESCRIPTION
1. Definition	Ratio of the number of new cases of occupational diseases during the reference year divided by the average number of workers in the reference group during the reference year *Occupational disease: A disease contracted as a result of an exposure over a period of time to risk factors arising from work activity.* *Case of occupational disease: The case of a worker with an occupational disease* *Reference group: The group of workers under consideration, e.g. female workers, agriculture workers*
2. Statistics required	NCD: New cases of occupational diseases in the reference group for the reference year NREFW: Average number of workers in the reference group during the reference year
3. Method of Computation	ROD = 100,000 * NCD / NREFW
4. Data Sources a. Best b. Best available c. Others	 National notification systems, Occupational health clinics RSSB, MIFOTRA (labour inspection records)
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district, residence Age groups Occupation, Industry

ELEMENT	DESCRIPTION
6. Interpretation	This indicator assesses the risk of relevant workers to occupational diseases. However, given the different working time of these workers, it does not fully take into account this risk factor. Thus, if possible, the indicator should be computed in terms of the number of full-time equivalent workers.
7. Uses and limitations	Data on occupational diseases are essential for planning preventive measures. Workers in occupations and activities of highest risk can be targeted more effectively for development of regulations and procedures and for safety campaigns. The disaggregation of the indicator by sex is important for the formulation of these preventive measures, as women and men do very different jobs and so face different hazards. Similarly, exposures to diseases vary between industries, occupations and age groups. Hence the importance of disaggregating the indicator by these factors. When measured over a period of time, the data can reveal progress or deterioration in occupational health, and thus the effectiveness of prevention measures. As much as possible the indicator should cover all workers, both employees and the self-employed. It should also relate to the whole country and to all sectors and industries. However, when disaggregated, the indicator would refer only to all workers in the identified reference group, e.g. all female workers, all workers in the mining industry. Both the numerator and denominator would then also be determined in relation to the same reference group. It should also be acknowledged that a rise or fall in the number of cases of occupational diseases over time may reflect not only changes in occupational safety and health conditions, but also modifications in reporting procedures or data collection methods, or revisions to regulations governing the reporting or compensation of occupational diseases. The biggest challenge in producing this indicator is the difficulty in differentiating those diseases that are work-related from other diseases. A possible approach is for Rwanda to produce a list of diseases that are recognized as occupational by the nature of the disease and the activities surrounding it. Such a list could be based on the industry groupings or on occupation groupings.
8. Other frameworks	EAC
9. Notes	• ILO. Resolution concerning statistics of occupational injuries (resulting from occupational accidents), adopted by the Sixteenth International Conference of Labour Statisticians (October 1998). http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferencesof-

ELEMENT	DESCRIPTION
	labour-statisticians/WCMS_087550/lang--en/index.htm • Taswell, K. and Wingfield-Digby, P. Occupational injuries statistics from household surveys and establishment surveys: An ILO manual on methods. Geneva, 2008.

LF 17: Labour inspection rate (LIR)

ELEMENT	DESCRIPTION
1. Definition	Ratio of the number of labour inspection visits to the relevant number of employed persons in workplaces. *Labour inspection visits: A physical presence of a labour inspector in a workplace for the purpose of carrying out a labour inspection and which is duly documented as required by national legislation.* *A workplace: Any physical space, whether a physical construction (such as a building or set of buildings) or not, in which at least one employed person carries out their work activities.* *Relevant employed persons: Those employed in workplaces that are registered and could potentially be selected for labour inspection.*
2. Statistics required	LV: The number of labour inspection visits RE: The number of persons employed in all workplaces
3. Method of Computation	LIR = 10,000 * LV / RE
4. Data Sources a. Best b. Best available c. Others	 Reports of labour inspectors MIFOTRA/LMIS (reports of labour inspectors)
5. Disaggregation 5.1 geographical 5.2 industry	 Province, district 1-digit industrial classification of economic activities
6. Interpretation	There are three key labour inspection activities: a) securing the enforcement of the legal provisions relating to conditions of work and the protection of workers; b) supplying technical information and advice to employers and workers concerning the most effective means of complying with the legal provisions; c) bringing to the notice of the competent authority defects or abuses not specifically covered by existing legal provisions. LIR assesses the extent to which these activities are being performed relative to the group of employed persons at risk. Low values indicate a weak protection system.
7. Uses and limitations	LIR is used to monitor the protection to workers while engaged in their work in terms of provisions relating to hours, wages, safety, health and welfare, the employment of children and young persons, and other

ELEMENT	DESCRIPTION
	connected matters. As many statistics and indicators relating to these provisions are derived from the reports of these visits, the quality of the data depends on high values of LIR. The performance of these duties of labour inspectors depends on their ability to make these visits. This is affected by their numbers relative to the workplaces to be visited, the availability of appropriate transportation and the ease of identification of the workplaces. The success of the visits requires cooperation from owners or managers of these workplaces and good implementation of labour laws. These factors should be taken into consideration when interpreting values and trends of LIR. Labour inspection usually excludes small establishments, especially those in the informal sector, and small rural farm enterprises. The value of LIR does not take the protection of workers in these workplaces into consideration.
8. Other frameworks	ILOSTAT, EAC
9. Notes	

LF 18: Ratio of labour inspectors to number of workplaces covered (LIW)

ELEMENT	DESCRIPTION
1. Definition	The ratio of the number of labour inspectors to the number of workplaces coverable *Labour inspectors: public officials responsible for three key labour inspection activities: a) securing the enforcement of the legal provisions relating to conditions of work and the protection of workers while engaged in their work; b) supplying technical information and advice to employers and workers concerning the most effective means of complying with the legal provisions; c) bringing to the notice of the competent authority defects or abuses not specifically covered by existing legal provisions.* *A workplace can be defined as any physical space, whether a physical construction (such as a building or set of buildings) or not, in which at least one employed person carries out their work activities. Only those workplaces that are registered and could potentially be selected for labour inspection should be included in the total number.*
2. Statistics required	LI: Number of labour inspectors NW: Number of coverable workplaces

ELEMENT	DESCRIPTION
3. Method of Computation	LIW = 1000 * LI / NW
4. Data Sources a. Best b. Best available c. Others	 MIFOTRA (numerator), Establishment register (denominator) MIFOTRA (numerator), Establishment census (denominator) Denominator: Manpower survey, RSSB, RRA
5. Disaggregation 5.1 geographical	 Province, district
6. Interpretation	LIW assesses the performance of the labour protection system in terms of adequate coverage of workplaces.
7. Uses and limitations	This indicator complements the indicator on labour inspection. Whilst the latter assesses the performance of the inspectors, this indicator does so for the system. Low values of labour inspection could be due to low values of LIW. Adequate protection of workers should therefore be determined in terms of high values of both indicators. In theory, coverable workplaces should include all workplaces irrespective of location, industry, size and type. In practice, it is limited to formal sector workplaces. Further, the number of coverable workplaces also depends on the quality of the establishment register.
8. Other frameworks	ILOSTAT, EAC
9. Notes	

LF 19: Share of persons in labour force with pension coverage (LFP)

ELEMENT	DESCRIPTION
1. Definition	The percentage of the labour force who are active contributors. *Active contributors: Insured individuals who have made at least one contribution or on whose behalf at least one contribution has been made during the reporting period (i.e. the 12 month period).*
2. Statistics required	NAC: Number of active contributors during reference year LF: Labour force
3. Method of Computation	LFP = 100 * NAC / LF
4. Data Sources a. Best b. Best available c. Others	 Administrative records of social security institution RSSB Labour force survey with question on contributions to pension scheme

ELEMENT	DESCRIPTION
5. Disaggregation 5.1 sex 5.2 age 5.3 industry 5.4 other characteristics	 Male/Female Age groups 1 digit industrial classification of economic activities Status in employment categories, Institutional sector
6. Interpretation	This indicator aims to capture the share of the labour force protected through a contributory pension scheme (with benefits guaranteed but not currently being received). It is a measure of effective coverage of the labour force. It is based on the number of active contributors to the scheme as distinct from the number of protected or affiliated persons who are insured by the scheme. The latter includes persons who are active contributors, as well as persons who have not made any contributions or on whose behalf no contributions have been made during the reporting period but who are still protected by the scheme and would benefit should a contingency arise.
7. Uses and limitations	The scope of this indicator is limited to contributory pension schemes which are mainly limited to formal sector workers. It assesses effective coverage as distinct from statutory coverage. The statutory coverage rate is the ratio between the estimated number of people legally covered and – as appropriate – the total number of employees, the total number of employed persons, the labour force, or the total population. Effective coverage is usually lower than statutory coverage because of non-compliance, problems with enforcement of the legal provisions, or deviations of actual policies from the text of the legislation. This indicator of effective coverage should be analysed together with additional information on (a) actual benefit levels for workers and measures to protect their value over time; and (b) the statutory provisions concerning eligibility for contributory benefits: the minimum contributory period required for being eligible for any periodic benefit (like a partial pension); the minimum contributory period required for a full periodic benefit or pension (possibly different for men and women). Disaggregation by any of the above variables reveals the differing patterns of coverage between the subpopulations corresponding to the different values of the variable. In particular disaggregating by institutional sector would separately report on the private sector and the public sector. The latter is sometimes not included in the same social security schemes as the former. Care should be taken to avoid double counting of persons contributing to

ELEMENT	DESCRIPTION
	the same scheme through more than one job. Depending on the circumstances, the age interval for this indicator could be the labour force below the statutory age for retirement.
8. Other frameworks	EAC, DWI
9. Notes	For general information on social security statistics, refer to Resolution concerning the development of social security statistics, adopted by the Ninth International Conference of Labour Statisticians in April-May 1957. http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferencesof-labour-statisticians/WCMS_087550/lang--en/index.htm

3.1.8 Group 9 – Poverty of employed persons

LF 20: Earnings Inequality - decile dispersion ratio (DDR)

ELEMENT	DESCRIPTION
1. Definition	The ratio of the average earnings of employees in the top decile to that of employees in the bottom decile of the earnings distribution. *Earnings in this context refer to regular remuneration received from employers, in cash and in kind.*
2. Statistics required	AE9: Average earnings of employees in the 9th decile AE1: Average earnings of employees in the 1st decile
3. Method of Computation	DDR = AE9 / AE1
4. Data Sources a. Best b. Best available c. Others	Household income survey; Labour force survey with earnings information EICV Manpower survey, RSSB, RRA
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	Male/Female Province, district, residence Age groups Industry, Occupation
6. Interpretation	This indicator is a measure of inequality based on income from paid employment (employee income) in the form of earnings. It expresses the income of the highest earners as a multiple of that of the poorest earners.
7. Uses and limitations	The value of such measures of the earnings distribution lies in the information they provide on the outcome of economic processes at the national level, that is, as a reflection of the access of different groups of employees to goods and services. Disaggregation of the indicator by sex is highly recommended. Further breakdown by residence (urban/rural), economic activity and occupation may be useful for policymaking. The inequality measure shows the disparity between different groups of employees in terms of the ratio of the employment income levels of the two groups at either end of the earnings distribution. The indicator is a "relative inequality" measure. Its value may remain the same although an

ELEMENT	DESCRIPTION
	upward or a downward shift may occur in the levels of average wages of the two groups. Its value could be reduced by a transfer of income from the richest to other groups. The inequality could be reduced without reducing poverty if the transfer is made from the richest households to those above the poverty line. Hence, this indicator should not be taken as a measure of well-being per se. For this objective, it should be analysed along with data on income levels. The decile dispersion ratio gives a measure of inequality based on income from employment for employees only. It does not include income from self-employed persons. Also, earnings do not cover the total income available to an employee. An alternative to the decile dispersion ratio for measuring inequality is the well-known Gini index. It is a direct measure of the degree of distributional inequality in earnings. It looks at the cumulative distribution of earnings (represented by the Lorenz curve) and estimates the extent to which it deviates from perfect equality. The Gini index has a value of zero for perfect equality of incomes and 100 for perfect inequality.
8. Other frameworks	KILM, DWI
9. Notes	

3.2 Labour supply (OTHER WORK ACTIVITIES)

3.2.1 Group 10 – Other labour input into SNA

LF 21: Rate of subsistence foodstuff producers (SFP)

ELEMENT	DESCRIPTION
1. Definition	The number of subsistence foodstuff producers as a percentage of the working-age population as defined in Chapter 1 §3.1. *Subsistence foodstuff producers: persons in own-use production work engaged in production of foodstuff from agriculture, fishing, hunting or gathering that contributes to the livelihood of the household or family* *Persons in own-use production work: all those of working age who, during a short reference period, performed any activity to produce goods or provide services for own final use.* *The recommended short reference period for this purpose is 4 weeks or 1 calendar month.* *(18th ICLS resolution concerning statistics of work, employment and labour underutilization, October 2013 – See Notes)*
2. Statistics required	NFP: Number of subsistence foodstuff producers WAP: Working age population
3. Method of Computation	SFP = 100 * NFP / WAP
4. Data Sources a. Best b. Best available c. Others	 Labour force survey EICV Other household surveys with labour force module
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, District, Residence Age groups Labour force status, Labour underutilization category
6. Interpretation	The rate of subsistence foodstuff producers will shed light on, and monitor trends in, this important group of workers with respect to labour market performance relating to insufficient access to, or integration in, markets, or to other factors of production. It is also key for analysing policies in relation to poverty reduction and food security.
7. Uses and limitations	This indicator should be disseminated together with measures of labour market performance, to bring to light possible issues of insufficient market integration, of differences in traditional lifestyles and cultures. To fully assess the contribution to SNA labour input, the indicator should

ELEMENT	DESCRIPTION
	be presented by specified working time hour bands. In order to understand their integration into the labour market, the rate of subsistence foodstuff producers should be analysed by their labour force status, labour underutilization category and related characteristics. Sub-annual estimates of the rate of subsistence foodstuff producers is useful in studying changes in their participation levels and working time – for example, during peak and slack seasons in agriculture. The information would, in addition, be essential for monitoring movements between subsistence production and seasonal wage employment or market self-employment, and for monitoring changes in measures of labour underutilization, particularly rates of unemployment and of potential labour force, pointing to a need for seasonal employment as a source of cash income at different times of the year. Subsistence foodstuff producers exclude those persons who engage in production of foodstuffs as a recreational or leisure activity.
8. Other frameworks	
9. Notes	http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/lang--en/index.htm

LF 22: Rates of own-use producers of goods by activity cluster

ELEMENT	DESCRIPTION
1. Definition	The percentage of the working age population who are own use producers of goods for each activity cluster i (OUP_i) *Persons in own-use production work are defined as all those of working age who, during a short reference period, performed any activity to produce goods or provide services for own final use.* *The recommended short reference period for this purpose is 4 weeks or 1 calendar month.* *Activity clusters refer to sets of tasks and duties performed by one person in order to produce specific kinds of goods or services for an economic unit e.g. Farm work, Catching/collecting foodstuff, Construction/major repair, Fetching water, Collecting firewood, Manufacture of other goods. A person may engage in one or several activity clusters.* *(18th ICLS resolution concerning statistics of work, employment and labour underutilization, October 2013 – See Notes below)*
2. Statistics required	NOP_i: Number of own use producers of goods in activity cluster i WAP: Working age population

ELEMENT	DESCRIPTION
3. Method of Computation	$OUP_i = 100 * NOP_i / WAP$
4. Data Sources a. Best b. Best available c. Others	 Labour force surveys Other household surveys with labour force module
5. Disaggregation 5.1 sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, District, Residence Age groups Labour force status, Labour underutilization category
6. Interpretation	The indicator reflects the extent to which persons of working age participate in different types of own use production of goods work, as represented by activity clusters. It assesses their contribution to the economy, in the form of this type of production of goods, to specific industries, to economic growth and to household livelihoods and well-being.
7. Uses and limitations	Analysis of these rates by hours actually worked support social analysis of this form of work, deeper understanding of work patterns in the population, assessment of their economic importance and measurement of labour input into SNA production. To shed light on the labour market integration of persons in these forms of work, the analysis should be carried out by their labour force status, by category of labour underutilization and by other such characteristics (particularly among the employed by industry). This would enable analysis of the extent of integration, or lack thereof, of persons engaged in own-use production of goods in wider markets for labour and for goods and services.
8. Other frameworks	
9. Notes	http://www.ilo.org/global/statistics-and-databases/standards-and-guidelines/resolutions-adopted-by-international-conferences-of-labour-statisticians/lang--en/index.htm

3.3 LABOUR DEMAND

3.3.1 Group 13 – Costs to employer

LF 23: Labour cost per employee by industry (LC_i)

ELEMENT	DESCRIPTION
1. Definition	Mean labour costs per employee by industry *Labour cost: the cost incurred by the employer in the employment of labour in a specified reference period, comprising remuneration for work performed, payments in respect of time paid for but not worked, bonuses and gratuities, the cost of food, drink and other payments in kind, cost of workers' housing borne by employers, employers' social security expenditures, cost to the employer for vocational training, welfare services and miscellaneous items, such as transport of workers, work clothes and recruitment, together with taxes regarded as labour cost.* *Industry: 1-digit industrial classification of economic activities (Chapter 1, §4.2)*
2. Statistics required	TLC_i: Total labour costs in industry i EE_i: Number of employees in industry i
3. Method of Computation	$LC_i = TLC_i / EE_i$
4. Data Sources a. Best b. Best available c. Others	 Labour cost survey Manpower survey
5. Disaggregation 5.1 geographical	 Province, Residence
6. Interpretation	Reflects differences in cost to employers of employing one unit of labour, in this case an employee, between industries. Total labour costs is valuable for many purposes related to evaluating disposable income developments, firms' competitiveness or requirements for fiscal policy interventions. Labour costs are a crucial factor in the abilities of enterprises to compete.
7. Uses and limitations	The level and structure of the cost of employing labour and the way these costs change between industries and over time can play a central role not only for wage negotiations but also for defining, implementing and assessing employment, wage and other social and fiscal policies that target the distribution and redistribution of income. It identifies those

ELEMENT	DESCRIPTION
	industries in which costs are much higher than others, so that there can be further investigation to ascertain the reasons for this. In particular, the measurement and analysis of non-wage labour costs (such as social security expenditures, recruitment costs, employee training, and plant facilities and services) is important for labour market flexibility, employment policies, analyses of cost disparities and comparisons of productivity levels among enterprises. Analysis over time should take into account factors that influence the levels of earnings and workers' benefits including growth or decline of establishments, levels of activity and changes in the structure of the employed population (changes in the relative proportions of men and women, skilled and unskilled labour, full-time and part-time workers, and so on). Compensation of employees consists of the same elements as labour cost but excluding the costs of recruitment, employee training, and plant facilities and services, such as cafeterias, medical clinics and welfare services. As data for the excluded elements are usually more difficult to obtain, it is easier to measure compensation costs than labour costs. It is therefore used as an alternative to labour costs in some circumstances. It is worth noting that compensation cost is similar to the "compensation of employees" measure used in the system of national accounts.
8. Other frameworks	KILM
9. Notes	

3.3.2 Group 14 – Establishments

LF 24: Growth rate of MSMEs (GRM)

ELEMENT	DESCRIPTION
1. Definition	Annual growth rate of micro, small and medium enterprises (MSMEs)
2. Statistics required	$NE_{(t-1)}$: Number of MSMEs in year (t-1) NE_t: Number of MSMEs in year t
3. Method of Computation	$GRM_t = 100 * (NE_t - NE_{(t-1)}) / NE_{(t-1)}$
4. Data Sources	
a. Best	Establishment survey
b. Best available	RDB
c. Others	Establishment census, Manpower survey, RSSB, RRA
5. Disaggregation	
5.1 sex	Male/Female
5.2 geographical	Province, District, Residence
5.3 age	Age group
5.4 other characteristics	Formal/Informal sector, Industry, Educational attainment of owner
6. Interpretation	It is anticipated that the bulk of the additional jobs required for meeting current and future employment needs of the workforce will come from the private sector – broadly and practically defined to cover the huge (in numerical terms) micro, small and medium enterprises (MSME) sector. Already, MSMEs contribute 84% o annual additional jobs in the labour market. Thus MSME growth is a major contributor to the creation of new jobs. So a good rate is significant in assessing the extent to which the objective of creating 200,000 new jobs is being achieved. It measures the success of incentives to support the growth and sustainability of MSMEs.
7. Uses and limitations	Analysis by age and by sex will identify the number of start-ups MSMEs with youth and women as owners, indicating their access to finance and other conditions for enterprise creation. Analysis by industry will indicate in which sectors new enterprises are being created. As the retail trade and services sector is assumed to provide work for the vast majority of the labour force located in the urban economy, growth in its size will signal that it is becoming even more vibrant and a dependable source of stable jobs. The disaggregation by formal/informal sectors is important in identifying

ELEMENT	DESCRIPTION
	the extent to which the new jobs being created are quality jobs in the formal sector. The indicator is crucial in assessing the success of the proposed programme to "support the growth and productivity enhancement of MSMEs".
8. Other frameworks	None
9. Notes	None

LF 25: Distribution of establishments by ownership (EON)

ELEMENT	DESCRIPTION
1. Definition	Percentage of establishments by type of ownership (sole or joint) *Type of ownership is in terms of ownership of the capital (fixed assets and operating capital).*
2. Statistics required	EN_i: Number of establishments of type i EN: Total number of all establishments
3. Method of Computation	$EON_i = 100 * EN_i / EN$
4. Data Sources a. Best b. Best available c. Others	 Establishment census/survey Establishment census Manpower survey, EICV, RSSB, RRA, RDB
5. Disaggregation 5.1 sex 5.2 nationality 5.3 geographical 5.4 age 5.5 other characteristics	 Male/Female Rwanda/Foreign (EAC)/Other foreign Province, District, Residence Age group Industry
6. Interpretation	The indicator is profiling the structure of establishments by type of ownership (and nationality). It reflects the establishment ownership structure in Rwanda.
7. Uses and limitations	Disaggregation by nationality is integral to this indicator as it describes the structure of establishment ownership in Rwanda, i.e. whether the capital is totally owned by Rwandan citizens or Rwandan organization; joint ownership with other countries businessmen, organizations, or governments; or entirely owned by foreign investors or organizations. Age and sex are key variables in assessing the access of youths and

ELEMENT	DESCRIPTION
	women to ownership of establishments.
8. Other frameworks	None
9. Notes	None

LF 26: Distribution of establishments by size (ENS)

ELEMENT	DESCRIPTION
1. Definition	The percentage of establishments by employment size groups (or capital groups). *Employment size: number of persons employed in establishment in a reference period or on a reference date.* *Employment size groups: Micro (1-3), Small (4-30), Medium (31-100) and Large (101+)* *Capital: The Capital employed is defined as the value of fixed assets plus current assets minus current liabilities. The capital employed is valued as of the beginning of the present fiscal year or at the market price, in the time of the interview.* *Capital groups (million Rwanda francs): Less than 0.5, 0.5 – 15.0, 15.0 – 75.0, 75.0 & over.*
2. Statistics required	NESi: Number of establishments in size group i EN: Total number of establishments
3. Method of Computation	ENSi = 100 * NESi / EN
4. Data Sources a. Best b. Best available c. Others	 Establishment survey Manpower survey, Establishment census EICV, RSSB, RRA
5. Disaggregation 5.1 geographical 5.2 characteristics of establishment 5.3 characteristics of owner	 Province, district, residence; Institutional sector, industry, type of ownership, capital groups (or employment size groups), formal/informal sectors; Sex, nationality, age
6. Interpretation	Categorization of establishments according to size can be measured in terms of employment or capital. Both labour and capital are essential inputs into production. So distribution of establishments by size according to one or the other of these factors is an important pointer to the productive capacity of the economy. In particular, the capital

ELEMENT	DESCRIPTION
	employed is the value of the assets that contributes to the establishment's ability to generate revenue.
7. Uses and limitations	Disaggregation by any of the above variables produces an understanding of the differences in the distributions of establishments by size across these sub-groups represented by the values of the variable. A challenge is the possible under-reporting of capital by formal sector establishments, leading to misleading analysis of the situation of formal versus informal sector establishments.
8. Other frameworks	None
9. Notes	None

3.4 CONTEXT

3.4.1 Group 15 – Context

LF 27: Children's economic activities rate (CEA)

ELEMENT	DESCRIPTION
1. Definition	The CEA is the proportion of children (6-17) who are engaged in economic activity. *The children engaged in economic activity are those who are engaged in any economic activity as defined by the System of the national account (SNA).*
2. Statistics required	CH: Number of children aged from 6 to 17 years old CHE: Number of economically active children.
3. Method of computation	CEA= 100 * CHE / CH
4.Data source a. Best b. Best available c. Others	 Child labour survey. EICV, Population Census, Other household surveys with LF module
5. Disaggregation 5.1 Sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Other variables that may be explanatory variables for employment activity, e.g educational attainment, occupation…
6. Interpretation	This indicator shows the degree of the involvement of children in economic activity.
7. Use and limitations	This indicator must not be interpreted with diligence and it must not be confused with the child labour rate. Not all economic activities are child labour. In Rwanda, children aged 16 to 17 are allowed to be engaged in the light work which are proportionate to their capacity Children's economic activity rate should be analyzed with children not in school or other education or health related indicator for different age groups as well as sex, to access to which extent the children's' work affect their education or their health.
8. Other frameworks	**EAC, KILM, DWI**
9. Notes	

ELEMENT	DESCRIPTION
1. Definition	The number of persons living with HIV/AIDS as a percentage of working age population (or labour force or employed)
2. Statistics required	HPP: Number of working age population (labour force or employed) living with HIV/AIDS WAP: Number of working age population (labour force or employed)
3. Method of computation	HP = 100 * WAP / HPP
4.Data source a. Best b. Best available c. Others	 DHS DHS
5. Disaggregation 5.1 Sex 5.2 geographical 5.3 age 5.4 other characteristics	 Male/Female Province, district and residence (urban/rural) Age group Occupation, Industry, Institutional sector
6. Interpretation	This indicator gives the HIV prevalence rate among the working-age population (labour force or employed population).
7. Use and limitations	The proportion of working age population (labour force or employed) living with HIV/AIDS sheds light on a contextual factor that impacts on the world of work in a number of ways, for example: labour/skills shortages, direct costs for enterprises, discrimination and job losses for workers, increasing child labour and worsening poverty. Disaggregation of the indicator by the above variables should be done with caution due to the rarity of the occurrence of HIV/AIDS in the relevant subgroups of the population.
8. Other frameworks	ILOSTAT, DWI
9. Notes	None

LF 29: Public social security expenditure (percentage of GDP) - (PSE)

ELEMENT	DESCRIPTION
1. Definition	This indicator represents the total public social security expenditure expressed as a percentage of the Gross Domestic Product (GDP). *Total annual public social security expenditure: the sum of expenditures (including benefit expenditure and administration costs) of all existing public social security/social protection schemes/programmes. These could include medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors' benefit, plus other income support and assistance programmes, including conditional cash transfers, available to the poor and not included under the classes above.*
2. Statistics required	SSE: Total annual of social security expenditure GDP.
3. Method of computation	PSE = 100 * SSE / GDP
4.Data source a. Best b. Best available c. Others	 RSSB and National account RSSB and National account
5. Disaggregation	Industry groups
6. Interpretation	Total public social security expenditure synthesizes the overall public redistributive effort and is closely correlated with the overall coverage. Public social security expenditure as a percentage of the total GDP reflects the social spending effort relative to the size of the economy.
7. Use and limitations	While social protection expenditure – in the longer run – is positively correlated with overall coverage (its scope, extent and level), it may also change due to factors other than changes in coverage. Changes in social security expenditure are often countercyclical; a fall in total public social security expenditure as a percentage of GDP could result from higher employment rates (declining unemployment) or from a reduction in occupational injuries which could point towards progress. In other words, in specific branches of social security (e.g. employment injury insurance and unemployment, in particular) an increase or decrease in expenditure may be due to changes in the need or utilization of those benefits (such as more or fewer accidents at work) and not to changes in coverage.
8. Other frameworks	DWI
9. Notes	

LF 30: GDP growth rate (GGR)

ELEMENT	DESCRIPTION
1. Definition	The GDP Growth Rate is the percentage change in the annual GDP value, compared to the previous year.
2. Statistics required	G_t :GDP value in the year t: G_{t-1}: GDP value in the year t-1
3. Method of computation	GGR = 100* $(G_t-G_{t-1})/G_{t-1}$
4.Data source a. Best b. Best available c. Others	 National account National account
5. Disaggregation	Industry groups
6. Interpretation	The GDP growth rate shows an increase or decrease in the capacity of an economy to produce goods and services, compared from one period of time to another.
7. Use and limitations	The GDP growth rate measures how fast the economy is growing. It is driven by retail expenditures, government spending, exports and inventory levels. Rises in imports will negatively affect economic growth. The GDP growth rate is the most important indicator of economic health. If it is growing, so will business, jobs and personal income. If it's slowing down, then businesses will hold off investing in new purchases and hiring new employees, waiting to see if the economy will improve. This, in turn, can easily further depress the economy and consumers have less money to spend on purchases.
8. Other frameworks	KILM, DWI
9. Notes	

LF 31: Private investment as proportion of GDP (PIP)

ELEMENT	DESCRIPTION
1. Definition	The ratio of private investment to GDP.
2. Statistics required	PR: Private investment over a 1 year period GDP over the same period
3. Method of Computation	PIP = PR / GDP
4. Data Sources a. Best b. Best available c. Others	 RDB, National accounts RDB, National accounts
5. Disaggregation 5.1 Industry	 1-digit industrial classification of economic activities
6. Interpretation	Changes in the proportion over time reflect the confidence investors have in the economy.
7. Uses and limitations	It is considered as one of the main macroeconomic indicators of the 'employment content' of economic growth and structural transformation. It assesses the success of policies to attract new employment opportunities (foreign and domestic including diaspora investments) to support long-term growth and sustainable development. Disaggregation by industry highlights those industries with relatively high investments compared to their growth rates. It allows the assessment of sector-specific plans to promote investments in agro-processing, involving food and beverage manufacturing, as well as in more labour-intensive and higher-value added horticultural products, leather goods, agro-based textile and garments (e.g. fibre from banana leaves), and wood products. Other sectors of importance are construction and ICT, tourism and hospitality, retail trade, and mining.
8. Other frameworks	None
9. Notes	None

Annex 1: Labour Market Indicators

Category 1: Labour Supply (Labour Force)

Group	No.	Title	Priority
Population	1	Distribution of Working age population by Age, Sex and Labour force status	**II**
	2	Dependency ratio	**II**
	3	Age structure of population	**III**
Labour Force	4	Labour force participation rate	**I**
	5	Distribution of persons outside the labour force by Reason	**III**
	6	Labour force status by Nationality	**IV**
Employment	***7***	***Employment-to-population ratio***	**I**
	8	***Distribution of Employed population by Industry***	**I**
	9	Distribution of Employed population by Status in employment - ***Vulnerable employment rate*** - Proportion of employees in precarious work	**I**
	10	Informal sector employment rate	**I**
	11	Informal employment rate	**I**
	12	Distribution of employed population by Occupation	**II**
	13	Distribution of employed population by Working time bands - Excessive hours	**II**
	14	Average weekly hours worked	**II**
	15	Share of paid Employment in non-agricultural employment	**III**
	16	Average weekly hours worked by Employed population by Status in employment	**III**
	17	Average weekly hours worked by Employed persons in selected 2-digit level Industries	**III**
	18	Average weekly hours worked by Employed persons in selected 2-digit level Occupations	**III**
	19	Distribution of employed population by Industry and Occupation	**III**
	20	Employees by Industry	**IV**
	21	Employees by Institutional sector	**IV**
	22	Employees by selected 2-digit level Industries	**IV**
	23	Employees by Occupation	**IV**
	24	Employees by selected 2-digit level Occupations	**IV**
	25	Employees by Industry and Occupation	**IV**
	26	Employees by weekly hours worked by Industry	**IV**
	27	Employees by weekly hours worked by selected 2-digit level Industries	**IV**
	28	Employment in the informal sector by main & secondary activity	**IV**
	29	Distribution of employed persons by nationality	**IV**
Labour	30	Unemployment rate	**I**

Group	No.	Title	Priority
Underutilization	31	Youth unemployment rate	**I**
	32	Youth not in education and not in employment rate	**I**
	33	Time-related underemployment rate	**I**
	34	***Rate of Labour underutilization***	**I**
	35	Long-term unemployment rate	**II**
	36	(Former) Relaxed unemployment rate	**II**
	37	Unemployed population by Category (1st time, Previously employed)	**IV**
	38	Unemployed persons previously employed by former Industry	**IV**
	39	Unemployed persons previously employed by former Occupation	**IV**
	40	Registered job-seekers rate	**IV**
Wages	***41***	***Average hourly earnings of employees by Industry, Occupation*** Average hourly earnings of employees in selected 2-digit or lower occupations	**I**
	42	Average hourly earnings of employees by deciles	**II**
	43	Wage index	**III**
	44	Average income-from-employment for self-employed by Industry, Occupation	**III**
	45	Minimum wage rate	**III**
	46	Mean weekly earnings of employees by selected 2-digit level Industries	**IV**
	47	Mean weekly earnings of employees by selected 2-digit level Occupations	**IV**
Skills	***48***	***Distribution of Labour force by Educational attainment***	**I**
	49	Distribution of unemployed persons by Educational attainment	**I**
	50	Distribution of employed persons by Occupation and Educational attainment	**I**
	51	Distribution of Employed persons with certification by type of certification (Vocational certificate, Bachelor's degree, Masters degree, Ph. Ds, Professional qualification) by Industry	**I**
	52	Distribution of employed foreigners by Industry	**I**
	53	Distribution of trained persons by areas of training and level of training	**I**
	54	Literacy rates of the labour force	**II**
	55	Distribution of required skills by type of establishment	**III**
	56	Distribution of number of outputs (trained persons) accessed professional internship from public & private institutions	**III**
	57	Distribution of Working age population by Educational attainment	**III**
Employment Equity & Industrial relations	58	Share of women in non-agricultural paid employment	**II**
	59	Share of youth in non-agricultural paid employment	**II**
	60	Female share of employment in senior and middle management	**II**

Group	No.	Title	Priority
	61	Wage gap	**II**
	62	Occupational segregation	**III**
	63	Trade union density rate of employed persons for each Status in employment category by Industry	**III**
	64	% of Employed persons covered by collective bargaining for each Status in employment category	**III**
	65	% of Employed persons covered by collective bargaining by Industry	**III**
	66	Distribution of Number of strikes and lockouts by Industry	**III**
	67	Distribution of Number of workers involved in strikes and lockouts by Industry	**III**
	68	Distribution of Number of registered complaints by type and Industry	**III**
	69	Trade union membership by type of member	**IV**
	70	Trade union density rate of employed persons for each status in employment category by Institutional sector	**IV**
	71	Employed persons covered by collective bargaining by Institutional sector	**IV**
	72	Days not worked due to strikes and lockouts by Industry	**IV**
Safe Work & Social protection	73	Fatal occupational injury rate	**II**
	74	Labour inspection rate	**II**
	75	Non-fatal occupational injury rate	**II**
	76	Rate of occupational diseases	**II**
	77	Ratio of labour inspectors to number of workplaces coverable	**II**
	78	Share of persons in labour force with pension coverage	**II**
	79	Distribution of Social security beneficiaries by Industry	**III**
	80	Number of self-employed persons contributing to social security	**III**
	81	Proportion of persons over 64 years entitled to a pension	**III**
	82	Cases of non-fatal occupational injury by Occupation	**IV**
	83	Cases of non-fatal occupational injury by Type of incapacity and Industry	**IV**
	84	Days lost due to cases of occupational injury with temporary incapacity for work by Industry	**IV**
	85	Cases of fatal occupational injury by Industry	**IV**
	86	Cases of fatal occupational injury by Occupation	**IV**
	87	Workers in reference group by Industry	**IV**
	88	Workers in reference group by Occupation	**IV**
	89	Registered workplaces that could be selected for labour inspection	**IV**
Poverty of employed persons	***90***	***Working poverty rate***	**I**
	91	Earnings inequality	**II**
	92	Low pay rate	**III**
	93	Working-age population living below the national poverty line by labour force status	**IV**

Category 2: Labour supply (Other work activities)

Group	No	Title	Priority
Other labour input into SNA	1	Distribution of persons in (own-use production of goods, unpaid trainee/apprentice work, volunteer work in market enterprises and volunteer work for own-use production of goods for other households) by Industry	**I**
	2	Rate of subsistence foodstuff producers	**II**
	3	Rates of own-use producers of goods by activity cluster	**II**
	4	Unpaid trainees/apprentices in establishments by Industry	**III**

Category 3: Labour demand

Group	No.	Title	Priority
Vacancies & Jobs	1	***Vacancy rate***	**I**
	2	***Distribution of Jobs created in Formal/informal sectors by Industry,***	**I**
	3	Registered Vacancies	**IV**
	4	Evolution of professional service providers last 5 years	**IV**
	5	Evolution of employment agencies last 5 years	**IV**
Costs to employer	6	Labour costs	**II**
Establishments	7	Distribution of Establishments by Formal/Informal sectors	**I**
	8	Growth rate of Micro, small & medium enterprises (MSMEs)	**II**
	9	Distribution of establishments by Ownership	**II**
	10	Distribution of establishments by Size (Capital or employment)	**II**
	11	Distribution of work permits by Industry and Nationality	**IV**

Category 4: Context

Group	No.	Title	Priority
Context	***1***	***Labour productivity (Growth rate of the ratio GDP/E)***	**I**
	2	Labour income share of Gross value added	**I**
	3	Employment elasticities (Growth of employment as ratio of growth of GDP)	**I**
	4	Inflation rate	**I**
	5	Children's economic activities / Child labour	**II**
	6	Proportion of working age population (labour force or employed) living with HIV/AIDS	**II**
	7	Public social security expenditure as proportion of GDP	**II**
	8	GDP growth rate	**II**
	9	Private investment as proportion of GDP	**II**
	10	Public expenditure on health as proportion of GDP	**III**
	11	Public expenditure on education as proportion of GDP	**III**

*: Core Rwanda Labour Market Indicators are in bold