



International  
Labour  
Office  
Geneva

**Employment Sector  
Employment Working Paper No. 13**

**2008**

**Assessing vulnerable employment:  
The role of status and sector  
indicators in Pakistan, Namibia  
and Brazil**

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First published 2008

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Sparreboom, Theo; de Gier, Michael P.F.

Assessing vulnerable employment: The role of status and sector indicators in Pakistan, Namibia and Brazil / Theo Sparreboom and Michael P.F. de Gier; International Labour Office - Geneva: ILO, 2008  
41 p. (Employment Sector working paper ; No.13)

ISBN: 9789221212836; 9789221212843 (web pdf)  
ISSN 1999-2939; 1999-2947 (web)

International Labour Office

employment / employment status / economic sector / Brazil / Namibia / Pakistan

13.01.3

*ILO Cataloguing in Publication Data*

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Printed in Switzerland

## Preface

The primary goal of the ILO is to contribute with member States to achieve full and productive employment and decent work for all, including women and young people, a goal which has now been widely adopted by the international community.

In order to support member States and the social partners to reach the goal, the ILO pursues a Decent Work Agenda which comprises four interrelated areas: Respect for fundamental worker's rights and international labour standards, employment promotion, social protection and social dialogue. Explanations of this integrated approach and related challenges are contained in a number of key documents: in those explaining and elaborating the concept of decent work,<sup>1</sup> in the Employment Policy Convention, 1964 (No. 122),<sup>2</sup> and in the Global Employment Agenda.

The Global Employment Agenda was developed by the ILO through tripartite consensus of its Governing Body's Employment and Social Policy Committee. Since its adoption in 2003 it has been further articulated and made more operational and today it constitutes the basic framework through which the ILO pursues the objective of placing employment at the centre of economic and social policies.<sup>3</sup>

The Employment Sector is fully engaged in the implementation of the Global Employment Agenda, and is doing so through a large range of technical support and capacity building activities, advisory services and policy research. As part of its research and publications programme, the Employment Sector promotes knowledge-generation around key policy issues and topics conforming to the core elements of the Global Employment Agenda and the Decent Work Agenda. The Sector's publications consist of books, monographs, working papers, employment reports and policy briefs.<sup>4</sup>

The *Employment Working Papers* series is designed to disseminate the main findings of research initiatives undertaken by the various departments and programmes of the Sector. The working papers are intended to encourage exchange of ideas and to stimulate debate. The views expressed are the responsibility of the author(s) and do not necessarily represent those of the ILO.

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<sup>1</sup> See the successive Reports of the Director-General to the International Labour Conference: *Decent work* (1999); *Reducing the decent work deficit: A global challenge* (2001); *Working out of poverty* (2003).

<sup>2</sup> In 1964, ILO Members adopted Convention No. 122 on employment policy which states that "With a view to stimulating economic growth and development, raising levels of living, meeting manpower requirements and overcoming unemployment and underemployment, each Member shall declare and pursue, as a major goal, an active policy designed to promote full, productive and freely chosen employment".

<sup>3</sup> See <http://www.ilo.org/gea>. And in particular: *Implementing the Global Employment Agenda: Employment strategies in support of decent work*, "Vision" document, ILO, 2006.

<sup>4</sup> See <http://www.ilo.org/employment>.



## Foreword

Promotion of the Decent Work Agenda requires appropriate indicators to monitor the extent to which decent work objectives are being achieved. This paper explores possibilities to identify vulnerable groups in the labour market, i.e. groups that are at risk of lacking decent employment, using employment by status in conjunction with other indicators and in particular employment by sector. Both indicators – status in employment and sectoral employment – are standard ingredients of the economic development discourse and are part of the ILO's set of Key Indicators of the Labour Market (KILM), while status in employment has been adopted as part of the set of indicators that is used to monitor the new target on decent employment in the Millennium Development Goals.

The paper argues that cross tabulations of status and sector indicators provide a powerful tool for the assessment of labour market vulnerability. Cross tabulations can be produced for most countries based on widely available statistics, and if used in conjunction with other information they can enrich labour market analysis and inform decent employment policies. Accordingly, the paper aims to demonstrate that status and sector indicators, as part of a core set of national labour market indicators and coupled with strong contextual background information, can help improve evidence-based policy making. The paper draws on country information from Pakistan, Namibia and Brazil to examine linkages between sector and status indicators and vulnerability. The different labour market characteristics and experiences of these countries are used to highlight the value of the concept of labour market vulnerability based on status in employment.

Theo Sparreboom is a labour economist in the Employment Trends Team of the Economic and Labour Market Analysis Department, ILO, Geneva, and Michael de Gier is an economist and former external collaborator of the ILO (Trends Team). Responsibility for the opinions expressed in this study lies solely with the authors, and publication does not constitute an endorsement by the ILO of the opinions expressed in it.

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## **Acknowledgements**

The authors would like to thank Alana Albee, Janine Berg, Rogerio Constanzi, Steven Kapsos and Dorothea Schmidt for their valuable comments and insights. All remaining errors are the responsibility of the authors only.





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# 1. Introduction

Decent work, defined as being productive work for women and men in conditions of freedom, equity, security and human dignity, brings together multiple dimensions and goals in an integrated manner.<sup>5</sup> The multiple dimensions of decent work are reflected in the four pillars of the ILO's Decent Work Agenda:

- Employment creation and enterprise development
- Social protection
- Standards and rights at work
- Governance and social dialogue

Promotion of the Decent Work Agenda requires information on the extent to which decent work objectives are currently being achieved, whether progress is made on the global, regional, national and sub-national levels, and what the effects of economic and labour market changes are in this context. To this end, the dimensions of decent work can be captured in sets of indicators and analyzed over time. In other words, indicators can be used to shed light on progress towards achieving decent work objectives and to help understand critical elements associated with deficits.

At first glance it seems that for certain labour market segments such an assessment of decent work objectives may be straightforward. For example in the case of the unemployed, the unemployment rate provides insight into the proportion of the labour force without employment (let alone decent employment). However, one of the drawbacks to an exclusive focus on the unemployment rate is that used in isolation, one is unable to provide much insight beyond the fact that one segment of the population is without work and looking for work, and this is insufficient to paint a clear picture regarding decent work. Furthermore, while the unemployment rate is an informative indicator of the overall state of the labour market in developed economies, this is often not the case in developing economies. Unemployment is usually only the tip of the iceberg of labour market challenges confronting developing economies, which most notably also include pervasive underutilization within labour markets. Even if individuals are employed, such employment may well be characterized by low productivity, low earnings, and the absence of fundamental rights at work, social protection and/or meaningful social dialogue.

Hence there is a need to assess decent work objectives using a more comprehensive set of indicators, both in developed and in developing economies. A comprehensive set of indicators can be used to assess various dimensions of decent employment, as well as to highlight nuances which cannot be captured in a single indicator.<sup>6</sup> There are several difficulties associated with such an approach. The most obvious one is the availability of comprehensive statistics to construct the indicators. Labour force surveys constitute a key source of information regarding labour markets, but regrettably many countries lack the resources and/or technical capacity to conduct surveys on a sufficiently regular basis. Moreover, a

<sup>5</sup> See ILO, 2007b.

<sup>6</sup> See Anker, Chernyshev, Egger et al., 2003, pp. 147-177, for discussion of such a set.

comprehensive set of indicators is more difficult to grasp for many users who often prefer one single indicator that appears to summarize labour market conditions. The strong desire to use the unemployment rate at national and international levels is in part explained by the need of policymakers and politicians to support their message using one indicator which they believe the general public understands, as opposed to a range of indicators, some of which may be more difficult to grasp. More fundamentally, there are limitations in the use of the three-way categorization of the labour force framework which underpins labour force surveys, and these limitations may hamper an assessment of decent employment objectives in particular in developing economies.

The labour force framework applies best in situations where the dominant type of employment is “regular full-time employment”.<sup>7</sup> Structural labour market conditions in the developing world are however such that only a minority of the labour force is in such a situation. These conditions not only necessitate conducting labour force surveys on a sufficiently regular basis, but also imply that survey results will show a high degree of heterogeneity in terms of the characteristics of persons classified as employed, unemployed or outside the labour force.

Heterogeneity within the categories of the labour force framework can be made explicit through the use of appropriate data differentiations. As noted by the ILO, the development of labour force concepts with the aim of better capturing labour market situations has contributed to both this heterogeneity and the need for data differentiations:<sup>8</sup>

The general trend observed in the development of labour force concepts has been toward making the employed and unemployed categories as inclusive as possible, in order to deal with the diversity of types and degrees of economic activity of individuals in different national situations. The definition of economic activity to include certain non-market activities as well as all market activities, the priority rules and the associated one-hour criterion in the definition of employment, and the possibility of relaxing the seeking work criterion in the definition of unemployment, all contribute to the expansive nature of the labour force framework. This aspect, together with the restricted number of categories in the framework, makes the employment and unemployment categories to a greater or lesser degree heterogeneous. This in turn may necessitate further differentiations in data analysis. Appropriate differentiation, where necessary, should compensate for any oversimplification inherent in the three-category labour force framework. Identification of more homogeneous groups should not only improve interpretation of the resulting statistics, but also help to better understand changes over time.

In other words, appropriate data differentiations can be and have been used to counter potential oversimplifications resulting from “all inclusive” labour force concepts. There are, however, limitations in the extent to which data differentiations can be used within the labour force framework to identify homogeneous groups in a heterogeneous labour market.<sup>9</sup> For example, in many labour force surveys employed persons are differentiated on the basis of the number of hours worked, and such breakdowns can be used to estimate time-related underemployment. Particularly in developing countries, the underemployed and the unemployed are

<sup>7</sup> See Hussmanns, Mehran and Verma, 1990, p. 44.

<sup>8</sup> *ibid.*

<sup>9</sup> See Sparreboom, 2001, pp. 167-202.

sometimes aggregated to arrive at a broader measure of labour underutilization. However, hours of work are likely to be more accurately measured in situations in which the number of hours worked is regular (or even effectively regulated), than in situations in which hours of work are irregular, driven by seasonal factors and not subject to enforced regulations, and the latter situations can be found in large parts of developing economies. To make matters worse, it is precisely these parts of economies which are usually not covered by establishment surveys or administrative records, actually eliminating possibilities to use alternative sources of labour market information when they are most needed.

In the past 20 years, additional classifications and indicators have been developed to better address heterogeneity in labour markets, in particular in developing economies. Improvements in the methodology to measure status in employment and time-related underemployment can be seen in this light, as well as the introduction of measures of working poverty. The extent to which these classifications and indicators have been able to adequately deal with labour market heterogeneity is widely discussed. This paper aims to contribute to this debate by exploring possibilities to identify vulnerable groups in the labour market using employment by status in conjunction with other indicators and in particular employment by sector. Employed persons are “vulnerable” if they risk working under inadequate conditions, in other words if they are at risk of lacking decent employment.

The main focus of this paper is on how these two indicators – status in employment and sectoral employment – which are standard ingredients of the economic development discourse and are both part of the ILO’s set of Key Indicators of the Labour Market (KILM),<sup>10</sup> are interlinked empirically and how they can be used to assess labour market vulnerability. It will be argued that cross tabulations of status and sector indicators provide a powerful tool for the assessment of labour market vulnerability. Cross tabulations can be produced for most countries based on widely available statistics, and if used in conjunction with other information they can enrich labour market analysis and inform decent employment policies. Accordingly, the paper aims to demonstrate that status and sector indicators, as part of a core set of national labour market indicators and coupled with strong contextual background information, can help improve evidence-based policy making.

Section 2 summarizes the definitions and use of employment by status (KILM 3) and employment by sector (KILM 4), explores the role of these two indicators in economic theory and discusses how they relate to decent employment objectives and vulnerability in general. This section uses surveys of the literature and recent country studies. Sections 3-5 draw on detailed country information from Pakistan, Namibia and Brazil to examine linkages between sector and status indicators and vulnerability. These three countries reflect vastly different economic and labour market characteristics and experiences, which will be used to highlight the usefulness of the concept of labour market vulnerability based on status in employment. Section 6 concludes, and stresses the need to move beyond a debate about the merits and demerits of single indicators.

<sup>10</sup> See ILO, 2007a.

## **2. Development and employment: What do status and sector indicators show?**

### **Defining status and sector**

In line with the International Classification by Status in Employment (ICSE, 1993), the indicator of status in employment (KILM 3) distinguishes between three broad categories of the employed. These are: (a) wage and salaried workers (also known as employees); (b) self-employed workers; and (c) contributing family workers (also known as unpaid family workers). The self-employed group (b) is divided into three subcategories – self-employed workers with employees (employers), self-employed workers without employees (own-account workers) and members of producers' cooperatives. The basic criteria used to define the status groups are the types of economic risk that they face in their work, an element of which is the strength of institutional attachment between the person and the job, and the type of authority over establishments and other workers that the job-holder has or will have as an explicit or implicit result of the employment contract.

The indicator for employment by sector (KILM 4a) divides employment into three broad groupings of economic activity: agriculture, industry and services. These broad groupings are based on aggregations of groupings of economic activity in accordance with the International Standard Industrial Classification System (ISIC), Revision 3 (1990), which distinguishes 18 tabulation categories (KILM 4b), and Revision 2 (1968), which divides employment in 10 major divisions (KILM 4c).

In this paper, we will distinguish between wage and salaried workers, employers, own-account workers and contributing family workers, thus abstracting from cooperatives.<sup>11</sup>

### **Economic development – standard discourse**

A distribution of employment by status typically showing large proportions of own-account workers and contributing family workers points to a limited formal economy and a large agricultural sector and rural economy. Own-account workers in developing economies are associated with subsistence agriculture and other activities such as petty trade, often providing an irregular source of earnings. Contributing family work is a form of labour – generally unpaid, although compensation might come indirectly in the form of family income – that supports production for the market. It is particularly common among women in developing countries.

In comparison with wage and salaried workers, contributing family workers as well as own-account workers are less likely to benefit from formal social protection, and more likely to face obstacles in engaging in meaningful social dialogue with a view to improving working conditions or ensuring rights at work. Contributing family workers are essentially dependent on the goodwill and generosity of family

<sup>11</sup> The role of employment in cooperatives is beyond the scope of this paper.

members to look after their interests, and, in the absence of formal, written contracts, will have limited options for recourse to formal intermediation in case of labour disputes. Own-account workers are in principle masters of their own working conditions, but if these workers are engaged in subsistence activities, they are likely to lack the means to contribute to and benefit from formal social protections schemes. In the absence of strong associations or sector bodies defending their interests, own-account workers also have limited bargaining power vis-à-vis the government (e.g. regarding public facilities or regulations affecting their business) or vis-à-vis the organized or corporate enterprise sector (e.g. regarding competition issues).

The standard development discourse suggests that with economic growth, structural transformation with regard to both the economic and the employment structure will occur. In the extensive literature on structural transformation a number of factors driving this process have been identified:<sup>12</sup> (1) a less-than-unitary income elasticity of demand for agricultural goods that further declines with economic growth; (2) possibility of a substantial expansion of agricultural production with a constant or declining farm labour force; and (3) demand and supply-side changes in output consumption, or price elasticity and substitution effects, further reinforcing changes in output consumption away from agricultural goods.

In terms of the structure of employment, structural transformation entails a shift of employment away from agriculture (major division 1) to the industry (major divisions 2-5) and the services sectors (major divisions 6-9). Structural transformation is also associated with changes in employment status. Agriculture, petty trade and other components of the “traditional” or subsistence sector are dominated by own-account workers and contributing family workers because of institutional arrangements such as the farming household being both a consumption and production unit. Structural transformation necessitates alternative arrangements in dedicated production units that allow for economies of scale, and organized production in line with an increasing specialization of the workforce. Accordingly, transformation brings a reduction of own-account work of the subsistence type.

In other words, a rise in the share of employees, and falling proportions of the share of own-account workers and/or contributing family workers, can be expected to accompany structural transformation from a low-income situation with a large informal or rural sector to a higher-income situation, and a high proportion of wage and salaried workers in a country may well signify advanced economic development. For the reasons highlighted before, it can also be expected that this textbook transformation path results in a reduction of labour market vulnerability. The rise in incomes that is implicit in “economic development” contributes to increasing wages and salaries, making a decent level of earnings more likely, while wage and salaried employees are more likely to benefit in terms of other dimensions of decent and productive employment as well. Last but not least, development is strongly linked to gains in educational attainment and literacy, therefore improving the economic context of decent work.

<sup>12</sup> See Johnston, 1970, pp. 369-404.

## Recent empirical evidence and alternative labour market outcomes

The standard discourse summarized before has proven its usefulness in economic theory and practice. This discourse can be illustrated with recent country studies by the World Bank on Latvia and Croatia.<sup>13</sup> These studies document empirical evidence in support of structural transformation in these economies, in which the role of agriculture in the economy and employment is declining, and shifts are observed in employment status as expected. In Latvia, for example, after the initial contraction of the economy in the early 1990s, the economy started growing rapidly and between 1995 and 2005 total value added in the national economy doubled in real terms. During this period, the share of agriculture in national output fell from six to four per cent, and agricultural growth lagged behind the rapid growth in the industrial and services sectors. The World Bank study identifies wholesale and retail trade, followed by real estate and related activities as the key drivers of economic growth. The share of wage and salaried workers increased from 84.2 per cent in 2002 to 86.9 per cent in 2005 (among Latvians), and the share of employers increased from 3.0 to 3.4 per cent. On the other hand, during the same period the share of own-account workers fell from 7.5 to 7.0 per cent, and the share of contributing family workers from 5.3 to 2.6 per cent in 2005.

The value of the standard discourse notwithstanding, it offers a highly stylized model of structural transformation, and countries experience a variety of actual multidimensional transformation paths that are influenced by policies as well as other factors.<sup>14</sup> A series of these paths, spanning several decades, are investigated by Osmani (2004).<sup>15</sup> He focuses on how labour markets respond to economic growth and serve as transmission mechanism for poverty reduction in Armenia, Bangladesh, Indonesia, Vietnam and Uzbekistan. The research highlights that an increase in wage and salaried employment and a reduction in own-account work is not the only labour market response to economic growth. Other possibilities include a reduction in unemployment and an increase in the overall employment-to-population rate (across all status in employment groups); a reduction in underemployment and working poverty, with or without changes in the unemployment rate; and higher wages and/or higher rates of return to own-account work resulting from either higher productivity or better terms of trade. These country experiences not only illustrate how economies may diverge from the standard discourse, but also that a full understanding of (reductions in) labour underutilization requires a comprehensive set of labour market indicators.

In a study of job creation in sub-Saharan Africa, Fox and Sekkel (2006) raise the question why economic growth did not translate in wage and salaried employment in many countries in this region.<sup>16</sup> The reasons identified include the

<sup>13</sup> See World Bank, 2006 and 2007.

<sup>14</sup> Strong investment in education, for instance, is likely to have contributed to the apparent smooth structural transformation in countries such as Latvia and Croatia in recent years, and is hampering transformation in many sub-Saharan African countries.

<sup>15</sup> See Osmani, 2004.

<sup>16</sup> See Fox and Sekkel, 2006.



relatively large size of the agricultural sector and the nature of adjustment policies adopted in sub-Saharan Africa. Furthermore, structural transformation often meant a shift in production and employment from agriculture to the services sector, while industrial employment in the manufacturing sector, usually an important source of employment creation in developing countries, remained at low levels (Africa's so-called "delayed structural transformation").<sup>17</sup>

As suggested in the work by Osmani, an increase in the rate of return on own-account work is one way in which labour markets respond to economic growth. This finding also underlines the fact that not all own-account work in developing countries is of the subsistence type. Own-account workers are a highly heterogeneous group, often consisting of a mix of subsistence and entrepreneurial activities. Even in industrialized countries, in which fairly low proportions of the employed are own-account workers, the nature of this work remains a topic of research. For instance, research by the OECD (2000) suggests a "renaissance" of self-employment (including own-account work) during the 1990s, concentrated in the fastest-growing parts of the economy.<sup>18</sup> The heterogeneous nature of own-account work may explain in part why own account work is sometimes relatively stable in countries in which wage and salary employment is growing rapidly, such as in the case of Latvia highlighted above.

### **3. Sector-status linkages and vulnerability in Pakistan**

In line with the main thrust of the standard development discourse on structural transformation, this section adopts a two-way categorization of vulnerable employment in terms of status in employment. The status groups of own-account workers and contributing family workers are considered vulnerable, while employers and employees are considered as less vulnerable. Linkages between vulnerability, employment by sector and other indicators are explored using detailed labour market information from Pakistan (see Box 1), including the types of errors that can be made in assessing vulnerability based on employment status, and the extent to which such errors can be reduced.

<sup>17</sup> Part of the limited wage and salaried employment creation is clearly related to Africa's highly varied growth experience, and the underlying causes. See for example the study by Ndulu et al. (2007), which highlights a range of factors explaining this experience, including the delayed demographic transition in Africa, the slow progress in addressing education and skills shortages, and the low productivity growth.

<sup>18</sup> See OECD, 2000.

**Box 1:**  
**The LMIA project in Pakistan**

This section draws on the UNDP/ILO Labour Market Information and Analysis (LMIA) project in Pakistan which started in August 2006 and ends in December 2007. The project supports the establishment of a LMIA Unit in the Ministry of Labour, Manpower and Overseas Pakistanis (MLMOP). The aim of the Unit is to provide up-to-date and timely LMIA that serves as an input into the formulation and monitoring of pro-poor, decent work and other policies as set out in the government's Medium Term Development Framework 2005-10, the Poverty Reduction Strategy Paper II (2007-09), the 2002 Labour Policy and other policy documents.

The LMIA system, which includes the Unit as well as institutional linkages with labour market stakeholders, addresses a number of specific challenges in the area of labour market information in Pakistan. These include:

- Limited integration of labour market analysis and policy development, in part due to the lack of coordination among institutions responsible for data collection and users of information and analysis.
- Low awareness of basic international concepts, classifications and definitions among policy makers, social partners and other stakeholders.
- Lack of timely and focused analysis and interpretation of key labour market and related indicators.
- Lack of data pertaining to topics that are high on the policy agenda such as youth employment and local economic development.

The main outputs of the LMIA system are as follows:

- (1) Production of labour market reports, Pakistan Employment Trends; these reports review labour markets in Pakistan in recent years in line with international best practice in statistical analysis and presentation.
- (2) Capacity building of the LMIA Unit and other labour market stakeholders through on-the-job training and training workshops on topics such as labour market analysis and report writing; general and specific software for statistical analysis; and data management.
- (3) Establishment of a LMIA database containing an internationally adopted set of key labour market indicators.
- (4) Improvements in data collection in collaboration with the Federal Bureau of Statistics (FBS), in particular through refinement and extended coverage of the labour force survey.

Building on these outputs, a second phase of the LMIA Project is being prepared. The second phase, scheduled to start in 2008, will contribute to the monitoring of MDG-responsive pro-poor policies in collaboration with the UNDP, and inform the reforms of the technical and vocational education and training (TVET) system. Partly with a view to the demographic transition that is unfolding, and partly with a view to the low educational attainment of the labour force, the employment policy framework in Pakistan increasingly emphasizes human resource development and in particular TVET.

## **Recent economic and labour market developments**

Pakistan's economy has gained momentum in recent years, benefiting from official and private transfers, textile exports, and foreign investment, despite security and governance concerns. After registering employment growth below 4 per cent between 1999/00 and 2001/02, growth accelerated to 4.7 per cent in 2002/03 and to more than 6 per cent since 2003/04, considerably above the average

of 4.6 per cent during the 1990s.<sup>19</sup> A number of labour market indicators have improved in line with this high growth environment. The labour force participation rate increased by 2.6 percentage points, the employment-to-population rate by 2.9 points and the unemployment rate decreased by 1.1 points between 1999/00 and 2005/06. Most of the change in the value of these indicators occurred in the most recent survey year (2005/06). Women benefited in particular from the improvement in labour market conditions, with the female unemployment rate registering single digits for the first time in 2005/06.

However, the high proportion of the employed working “excessive” hours (more than 49 hours per week), at 41.5 per cent in 2005/06, as well as the share of the employed with less than one year formal education, at 46.5 per cent, suggest that not all is well with the Pakistani labour market. Both indicators are associated with low productivity and earnings levels in much of the labour market. Educational attainment and literacy is rising over time, but working hours are declining only slightly. The decline is explained by the large inflow of women in the labour market, who work shorter hours on average than men. The proportion of workers working excessive hours among males increased in recent years. The gender gap in hours of work is a manifestation of the overall gender gap in the labour market in Pakistan, which is reflected in many labour market indicators despite some recent narrowing in participation, employment and unemployment indicators between males and females.<sup>20</sup>

## **Recent developments in employment by sector and status in employment**

Agriculture is the largest sector in Pakistan, but its share in terms of both value added and employment is declining (Table 1). From 1999/00 to 2005/06 the share in employment declined by more than 6 percentage points. Not surprisingly, given the high growth rates of manufacturing, this sector also registered the largest relative increase in employment during this period of 2.5 percentage points. Other important sectors in terms of employment creation have been trade, a large sector that expanded by 1.4 percentage points, transport (+0.8 percentage points), construction and community, social and personal services (both +0.5 percentage points). In brief, sectoral employment trends in Pakistan since the beginning of the decade are in line with the stylized facts highlighted in the previous section – structural change results in a shift in employment from agriculture to the industrial and services sectors.

Structural change in Pakistan was also accompanied by an increase of the proportion of workers in wage and salaried employment (employees) by 2.5 percentage points during 1999/00 to 2005/06 (Table 2). Less predictable, however, is the increase in the share of contributing family workers by 4.4 percentage points. Apart from some change in the (very small) status of group of employers, the increasing shares of employees and contributing family workers were balanced by the large decrease in the share of own-account workers (6.9 percentage points).

<sup>19</sup> See Ministry of Finance, Government of Pakistan, 2006.

<sup>20</sup> See Ministry of Labour, Manpower and Overseas Pakistanis, Government of Pakistan, 2007, for a detailed account of recent labour market developments in Pakistan.

**Table 1: Pakistan: employment by sector (%)**

Employed 15+	1999/ 2000	2001/ 2002	2003/ 2004	2005/ 2006	Change 1999/2000 to 2005/2006 (percentage points)
Agriculture, forestry, hunting and fishing					
Both sexes	47.8	41.1	41.8	41.6	-6.2
Males	43.4	37.2	37.0	35.6	-7.8
Females	73.7	64.5	66.6	67.7	-6.0
Mining and quarrying					
Both sexes	0.1	0.1	0.1	0.1	0.0
Males	0.1	0.1	0.1	0.1	0.0
Females	0.0	0.0	0.0	0.0	0.0
Manufacturing					
Both sexes	11.5	13.8	13.8	14.0	+2.5
Males	12.0	13.7	13.6	13.9	+1.9
Females	8.0	14.4	14.6	14.6	+6.6
Electricity, gas and water					
Both sexes	0.7	0.8	0.7	0.7	+0.0
Males	0.8	1.0	0.8	0.9	+0.1
Females	0.1	0.1	0.1	0.0	-0.1
Construction					
Both sexes	5.9	6.3	6.0	6.4	+0.5
Males	6.9	7.2	7.2	7.8	+0.9
Females	0.3	0.3	0.3	0.4	+0.1
Wholesale and retail trade, restaurants and hotels					
Both sexes	13.6	15.1	15.1	15.0	+1.4
Males	15.5	17.3	17.7	17.9	+2.4
Females	2.5	2.0	1.8	2.2	-0.3
Transport, storage and communication					
Both sexes	5.2	6.1	5.9	6.0	+0.8
Males	6.0	7.0	7.0	7.3	+1.3
Females	0.2	0.4	0.1	0.4	+0.2
Financing, insurance, real estate and business services					
Both sexes	0.9	0.9	1.1	1.2	+0.3
Males	1.0	1.1	1.3	1.4	+0.4
Females	0.2	0.1	0.1	0.2	+0.0
Community, social and personal services					
Both sexes	14.4	15.8	15.4	14.9	+0.5
Males	14.3	15.5	15.1	15.0	+0.7
Females	14.9	18.3	16.4	14.5	-0.4
All activities					
Both sexes	100.0	100.0	100.0	100.0	
Males	100.0	100.0	100.0	100.0	
Females	100.0	100.0	100.0	100.0	

Source: Calculations based on *Pakistan Labour Force Survey* (Islamabad, Government of Pakistan, Federal Bureau of Statistics, various years).

**Table 2: Pakistan: status in employment (%)**

Employed 15+	1999/ 2000	2001/ 2002	2003/ 2004	2005/ 2006	Change 1999/2000 to 2005/2006 (percentage points)
Employees					
Both sexes	35.9	40.4	38.5	38.4	+2.5
Males	36.4	40.9	39.8	41.2	+4.8
Females	33.1	37.1	31.5	26.6	-6.5
Employers					
Both sexes	0.8	0.9	0.9	0.9	+0.1
Males	0.9	0.9	1.1	1.1	+0.2
Females	0.1	0.3	0.1	0.1	0.0
Own-account workers					
Both sexes	43.7	39.9	38.6	36.8	-6.9
Males	48.2	43.8	42.9	41.5	-6.7
Females	16.8	16.5	17.0	16.2	-0.6
Contributing family workers					
Both sexes	19.5	18.8	22.0	23.9	+4.4
Males	14.5	14.3	16.2	16.2	+1.7
Females	49.9	46.1	51.4	57.0	+7.1
All status groups					
Both sexes	100.0	100.0	100.0	100.0	
Males	100.0	100.0	100.0	100.0	
Females	100.0	100.0	100.0	100.0	

Source: Calculations based on *Pakistan Labour Force Survey* (Islamabad, Government of Pakistan, Federal Bureau of Statistics, various years).

An important part of the counterintuitive shift towards the employment status group of contributing family workers is due to the inflow of women in the labour market. If we only consider male employment, which makes up more than 80 per cent of total employment, structural change goes together with a considerable increase in wage employment at the expense of own-account employment, with a relatively minor increase in contributing family work. However, more than two-thirds of the female workers that entered employment during 1999/00 to 2005/06 consisted of contributing family workers, while for males additional employment consisted for close to two-thirds of employees.

In other words, if we consider vulnerable employment as the aggregation of the status groups of own-account workers and contributing family workers, the textbook development path holds true for men and as expected reduces vulnerable employment in the process. In the case of women, however, recent industrialization in Pakistan resulted primarily in vulnerable employment.

### Exploring linkages between vulnerability, status and sector

Table 3 presents cross-tabulations of employment by sector and status. It can be seen that labour market vulnerability as defined in this paper was reduced across all economic sectors by 2.5 percentage points between 1999/00 and 2005/06, and in the case of males by 5.0 points. In line with the previous sections, female labour market vulnerability increased by 6.5 points, and especially increased in agriculture

and transport.<sup>21,22</sup> The breakdown by economic sector further shows that vulnerability is generally reduced in sectors leading recent employment growth. This is true for manufacturing, trade, and construction, together accounting for more than a third of the employed in 2005/06. It also declined in small sectors such as mining and electricity. However, in transport, services and in particular financing vulnerability increased, in the latter sector with almost 18 percentage points, by far the largest change in the period under review.

The increase in vulnerability in the financial sector is likely to reflect an increase in own-account workers engaged in entrepreneurial activities, characterized by growth potential, as opposed to own-account workers engaged in subsistence activities. Predominance of entrepreneurial activities is linked to the nature of the financial sector – well-regulated, with certain entry requirements including the possession of high-level, marketable skills and availability of some capital. However, even if the financial sector stands out in this regard, a mix of entrepreneurial and subsistence activities can be found in other sectors as well. A key issue in identifying vulnerable groups in the labour market is exactly how to distinguish between these two groups of activities.

One way to do this is to take additional indicators into account, for example illiteracy. A high illiteracy rate, or a very low educational attainment level (less than one year of formal education), by itself does not preclude the possibility of securing decent employment. As previously noted, however, low educational attainment certainly is associated with low productivity and income levels. Because illiteracy hampers trainability, it also unduly limits labour market options for illiterate individuals. Illiteracy can therefore be considered an important indicator of the economic and social context of decent work, and can be used to help identify labour market segments that are at risk of lacking decent employment.

Illiteracy is associated with vulnerability, measured on the basis of status in employment, at the national level in Pakistan, as the proportion of illiterates is significantly higher among own-account workers and contributing family workers (52.9 per cent in 2005/06) than among employers and employees (36.9 per cent). Illiteracy is also associated with vulnerability at the sectoral level, but there are nevertheless several sectors for which these two indicators show large differences (Figure 1). In mining, electricity, and construction there are relatively large proportions of illiterates, while in trade and finance these proportions are relatively small. The latter sector clearly stands out with the lowest proportion of illiterates among all economic sectors.

<sup>21</sup> For both males and females the effect of changes in the employment status group employers are negligible. Changes in vulnerability coincide with changes in the share of wage and salaried employees.

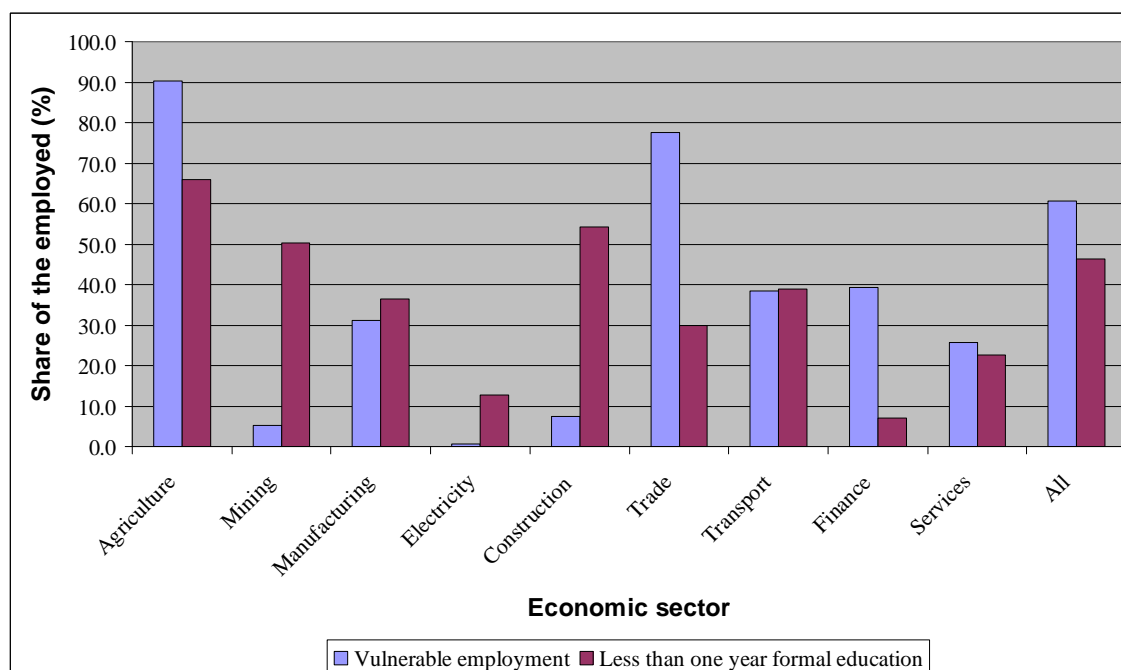
<sup>22</sup> The analysis in this section mostly focuses on overall labour market developments (aggregating males and females). A similar analysis could however be undertaken for males and females separately, which would underline the well-known disadvantaged position of women in the Pakistani labour market (see e.g. Ministry of Labour, Manpower and Overseas Pakistanis, Government of Pakistan, 2007, and the references therein).

**Table 3: Pakistan: employment by sector and status (%)**

Employed 15+	1999/2000		2005/2006		Change 1999/2000 to 2005/2006 Own-account workers & contributing family workers (percentage points)
	Employees & employers	Own-account workers & contributing family workers	Employees & employers	Own-account workers & contributing family workers	
Agriculture, forestry, hunting and fishing					
Both sexes	12.8	87.2	9.8	90.2	+3.0
Males	10.4	89.6	9.8	90.2	+0.6
Females	21.4	78.6	9.7	90.3	+11.7
Mining and quarrying					
Both sexes	94.3	5.7	94.6	5.4	-0.3
Males	93.9	6.1	94.5	5.5	-0.6
Females	100.0	0.0	100.0	0.0	0.0
Manufacturing					
Both sexes	64.0	36.0	68.8	31.2	-4.8
Males	65.7	34.3	74.1	25.9	-8.4
Females	49.4	50.6	47.0	53.0	+2.4
Electricity, gas and water					
Both sexes	98.0	2.0	99.4	0.6	-1.4
Males	98.0	2.0	99.4	0.6	-1.4
Females	100.0	0.0	100.0	0.0	+0.0
Construction					
Both sexes	90.1	9.9	92.6	7.4	-2.5
Males	90.1	9.9	92.6	7.4	-2.5
Females	91.3	8.7	89.8	10.2	+1.5
Wholesale and retail trade, restaurants and hotels					
Both sexes	17.5	82.5	22.5	77.5	-5.0
Males	17.8	82.2	22.6	77.4	-4.8
Females	5.9	94.1	16.4	83.6	-10.5
Transport, storage and communication					
Both sexes	64.1	35.9	61.6	38.4	+2.5
Males	64.0	36.0	61.5	38.5	+2.5
Females	82.9	17.1	74.4	25.6	+8.5
Financing, insurance, real estate and business services					
Both sexes	78.4	21.5	60.7	39.3	+17.8
Males	78.5	21.5	60.0	40.0	+18.5
Females	77.9	22.1	80.6	19.4	-2.7
Community, social and personal services					
Both sexes	74.9	25.1	74.3	25.7	+0.6
Males	73.1	26.9	72.3	27.7	+0.8
Females	84.7	15.3	83.4	16.6	+1.3
All activities					
Both sexes	36.8	63.2	39.3	60.7	-2.5
Males	37.3	62.7	42.3	57.7	-5.0
Females	33.2	66.8	26.7	73.3	+6.5

Source: Calculations based on *Pakistan Labour Force Survey* (Islamabad, Government of Pakistan, Federal Bureau of Statistics, various years).

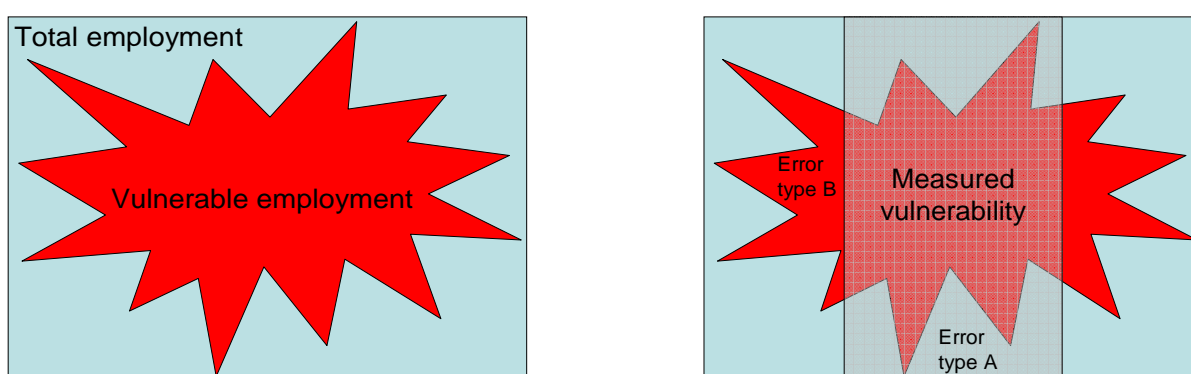
**Figure 1: Pakistan: selected indicators by economic sector, 2005/06**



Source: Calculations based on *Pakistan Labour Force Survey* (Islamabad, Government of Pakistan, Federal Bureau of Statistics, various years).

The very low illiteracy rate in the financial sector, and the nature of this sector previously highlighted, suggests that employment in this sector was wrongly identified as “vulnerable” using employment by status as a criterion. This is one of two types of errors that can be made if we attempt to statistically capture labour market vulnerability (type A). The second type of error, type B, occurs if we fail to identify a truly vulnerable segment of the labour market while using a particular criterion (see Figure 2).

**Figure 2: Measuring labour market vulnerability using one indicator**



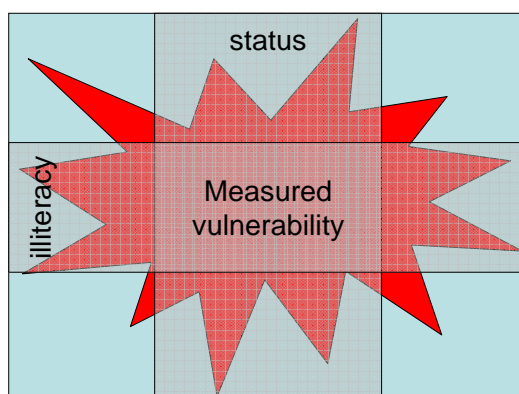
It could be tempting to use illiteracy as a criterion in assessing vulnerability in the first place. If we would use this criterion in isolation from other indicators, we clearly run into the same two types of errors (not all illiterates are “vulnerable”, in the sense of being at risk of lacking decent employment, and not all those at risk of lacking decent employment are illiterate), but the magnitude of each error will be different in comparison with the criterion of status in employment. If we identify



vulnerable employment on the basis of the aggregation of labour market segments identified by status and illiteracy (i.e. we consider vulnerable employment as consisting of own-account workers and contributing family workers, and in addition all illiterate workers regardless of their status in employment), we would reduce error type B, but at the cost of increasing type A.

If we use both criteria simultaneously (i.e. we consider vulnerable employment as consisting of illiterate own-account workers and illiterate contributing family workers), we are able to establish more firmly that a certain segment of the labour market is vulnerable (as reflected by the rectangular area in the middle of Figure 3). In this way we reduce or even eliminate error type A, depending on the exact shape of the area reflecting vulnerable employment in the figure, but at the cost of increasing the error of type B (reflected by all vulnerable employment outside the rectangular area).<sup>23</sup>

**Figure 3: Measuring labour market vulnerability using two indicators**



Returning to the two-way categorization of vulnerable employment based on status in employment, another group of type B errors results from the definition of wage and salaried employment (employees). According to ICSE (1993), employees share the characteristic that their employment contracts give them basic remuneration that is not directly dependent upon the revenue of the unit for which they work. This characteristic allows for a diverse set of working agreements, and in the case of Pakistan the status group employees can be differentiated further into four sub-groups of workers, including not only “regular paid employee with fixed wage” but also “casual paid employee”, “paid worker by piece rate or work performed”, and “paid non-family apprentice”.

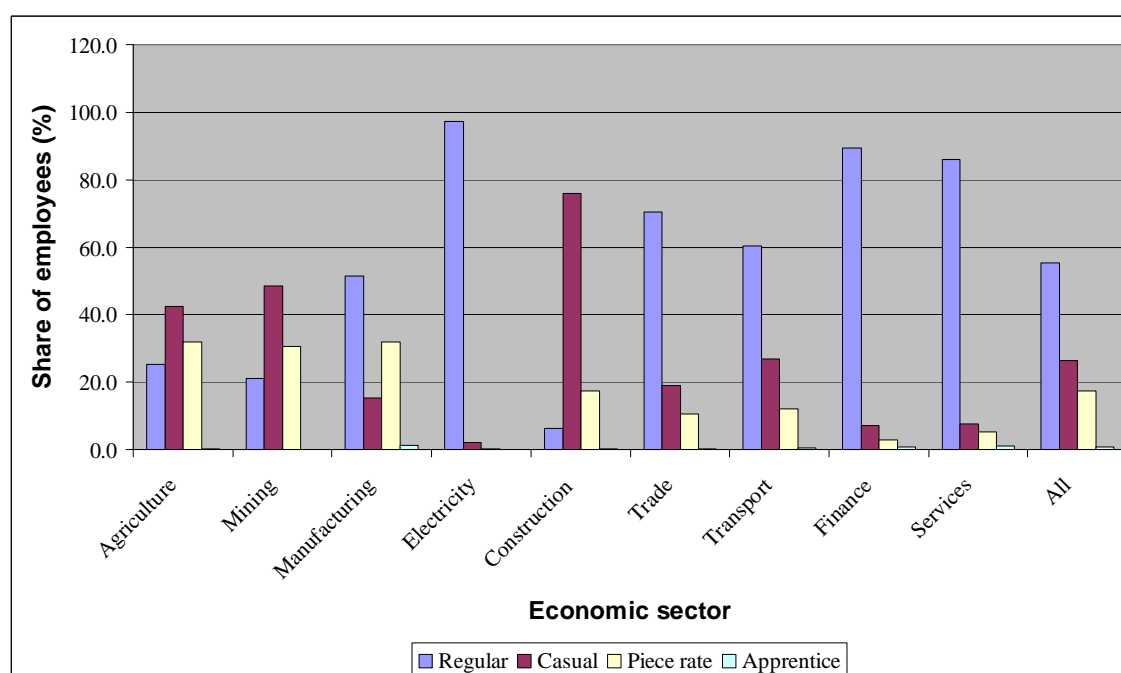
It can be argued that the last three sub-groups not only face a greater risk of lacking decent employment than regular paid employees, but also that this risk may in fact be similar to the risk faced by an own-account worker engaged in subsistence activities. If this argument is accepted, the status group of employees should be considered too heterogeneous to identify non-vulnerable employment, or non-

<sup>23</sup> If a set of reliable, measurable criteria for vulnerable employment at the level of individual workers (microlevel) would exist, then it would be possible to eliminate both errors.

vulnerable employment should be restricted to include only regular paid employees. Although this differentiation is likely to better distinguish between decent and non-decent employment, it still leaves out many other dimensions of decent work. For example, those classified as regular paid employees do not necessarily have a written contract, and may fall short of decent work objectives in terms of protection against dismissal, social protection or rights at work.

Figure 4 shows the distribution of the four sub-groups of employees by economic sector. It can be seen that in most sectors the majority of employees consist of regular paid employees (nationally this share is 56 per cent), which gives an indication of the magnitude of error type B. In the case of the electricity sector, this share is close to 100 per cent, which, in combination with the low proportion of own-account workers and contributing family workers in this sector, makes it an unlikely sector to identify labour market segments at risk. In mining and construction, on the other hand, large proportions of employees consist of casual employees, and these were also the sectors in which illiteracy rates were high in comparison with the share of workers in vulnerable employment.

**Figure 4: Pakistan: sub-groups of employees by economic sector, 2005/06**



Source: Calculations based on *Pakistan Labour Force Survey* (Islamabad, Government of Pakistan, Federal Bureau of Statistics, various years).

## 4. Sector-status linkages and vulnerability in Namibia

### Recent economic and labour market developments

The Namibian economy has performed relatively well over the past decade, with an average growth of around 4 per cent in the period 1995-2005. Between 1998 and 2003 especially the fishing, manufacturing, utilities, construction, transport and hotel and restaurant sectors showed high growth rates.<sup>24</sup> Employment trends have been less positive, however. Total employment in Namibia increased from 401 thousand to 432 thousand in the period 1997-2000, only to decline to 385 thousand in 2004. The Namibian population of 15 years and older increased by 98 thousand in the same period, implying a decline in the employment-to-population ratio by 5.7 percentage points to 37.4 per cent in 2004. The labour force participation rate shows a decline as well, from 53.5 per cent in 1997 to 47.9 per cent in 2004, decreasing both for men and women. The effect of these trends is a slowly increasing unemployment rate from 19.5 per cent in 1997 to 21.9 in 2004. When discouraged workers are taken into account, i.e. people available for work but not actively looking for work, the unemployment rate in 2004 even rises to 36.7 per cent. Some of the reasons for the lack of employment creation in Namibia are explored in Box 2.<sup>25</sup>

Educational attainment has certainly improved since the mid-1990s. In 2004, only 11.9 per cent of the employed had less than a year of education, 4.9 percentage points less than in 1997, with women showing particularly improved attainment levels. The share of the employed with only primary education declined from 36.9 per cent in 1997 to 27.8 per cent in 2004, while the share of the employed with junior or senior secondary education increased notably: from respectively 23.3 and 13.8 per cent to 29.8 and 20 per cent over the period 1997-2004. Among the unemployed, educational attainment improved as well, although to a somewhat smaller extent. The share of the unemployed without education declined by 3.1 percentage points to 7.5 per cent (not taking discouraged workers into account), and the share of unemployed with only primary education by 8.3 percentage points to 30.1. Meanwhile, the share of unemployed with junior or senior secondary education increased from respectively 33.8 and 15.9 per cent to 40.4 and 19.8 per cent over the period 1997-2004. One can therefore conclude that both the employed and unemployed have become better educated (see Figure 5), which is directly related to the relatively high amounts the government spends on education. Public expenditure on education declined somewhat between 1998 and 2003, but still amounts to almost 7 per cent of GDP, an enormous difference with Pakistan, where educational expenditure is around 2 per cent of GDP.

<sup>24</sup> See Mueller et al., 2005.

<sup>25</sup> Some of the lack of employment creation may be due to seasonal employment effects, which are difficult to assess on the basis of available labour force surveys in Namibia.

**Box 2:**  
**Reasons for the lack of employment creation in Namibia**

Although Namibia has mostly shown a robust rate of GDP growth over the past decade, employment growth has been slow or even negative, resulting in a declining employment-to-population rate and a rising unemployment rate. At least two reasons can be identified that contribute to the failure to create sufficient jobs in Namibia:

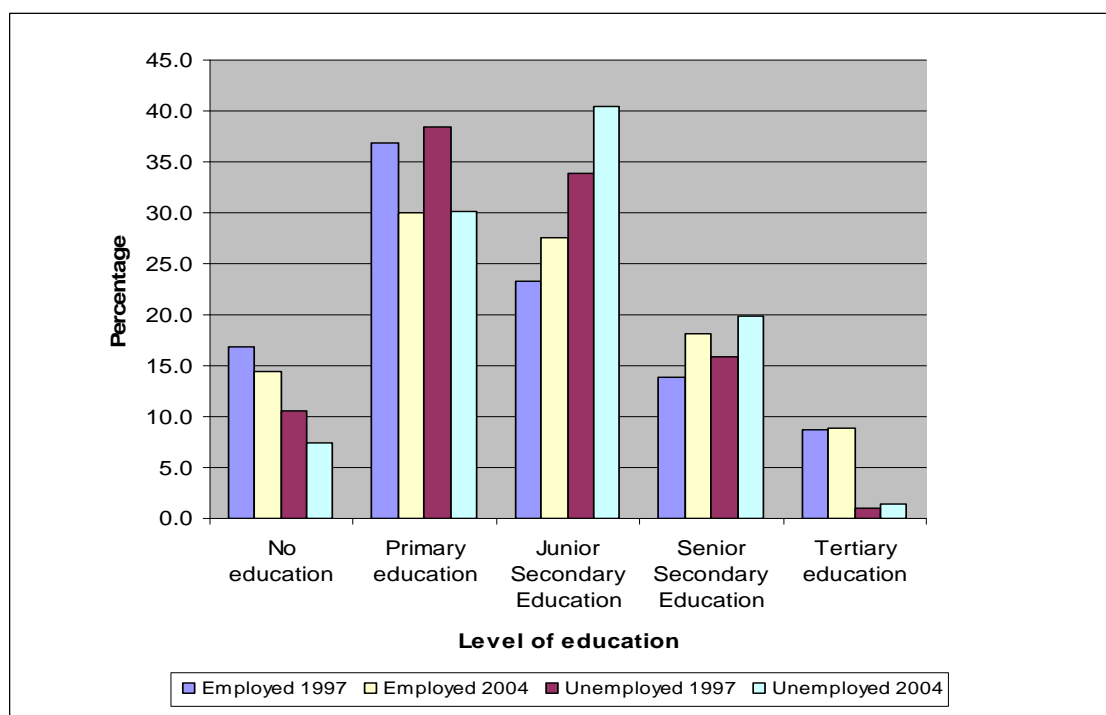
1. The Namibian economy is driven for a large part by production in the primary sector: minerals, agricultural products and fish. Most of this output, especially in case of mineral production, leaves the country unprocessed, thereby foregoing important opportunities for employment creation in processing industries. The growth of value added and investment in the mining sector in the last ten years have therefore not been employment intensive. Employment in the organized mining sector actually halved in the period 1990-2000 to just over six thousand jobs. Although climbing to 7.5 thousand jobs in 2004, this sector is still only responsible for 2 per cent of total Namibian employment, in contrast to a GDP share of around 8 per cent. A fine example of job creation in the processing of primary products can be found in the fishing sector: whereas the primary process of fishing was responsible for 4 per cent of total GDP in 2000, an additional 6 per cent of GDP was created in fish processing. This is mirrored in the 7,900 jobs in the fish processing sector, compared to 6,300 in the primary fishing process in 2000.<sup>1</sup>
2. A second reason (at least until 1999) has to do with the lagging total factor productivity (TFP) in Namibia:<sup>2</sup> a declining output per unit of investment makes investment less attractive (in spite of the favourable infrastructure, investment regulations and tax incentives of the country), which has a negative effect on employment creation. Among the underlying causes is the low skill level of the labour force, despite the substantial government expenditures on education (around 28 per cent of the government budget in 2000). As a result, some positions are occupied by under skilled workers while other positions are not staffed at all, in spite of high unemployment levels. Educating and training the workforce seems problematic, in part due to the low quality of teaching and the impact of HIV/AIDS on the education and training system, problems which can not be solved in the short run. However, although reliable TFP data are not available for more recent years, the high government expenditure on education is improving the skill level of the labour force (see below), which is certainly a step in the right direction in increasing TFP.

<sup>1</sup> See D. Motinga et al., *Namibia: Economic Review and Prospects 2000/2001* (Windhoek, Namibian Economic Policy Research Unit, 2000), p. 11.

<sup>2</sup> See M. Benito-Spinetto et al., *Namibia: Recent Economic Developments and Prospects* (Washington, DC, World Bank, 1999), p. i.

Analysis of the unemployment rate by educational attainment shows that the least educated part of the labour force bears the burden of the increasing unemployment of the past decade: the unemployment rate of the uneducated increased by 1.9 percentage points to 15.1 per cent over the period 1997-2004, while the situation worsened as well in the groups with primary and junior secondary education: an increase of respectively 3.3 and 1.6 percentage points to levels of 23.4 and 27.6 per cent. Of all these groups, women with primary education suffered the most: their unemployment rate increased by 8.1 percentage points to 27.8 per cent. Meanwhile, unemployment rates among the higher educated remained relatively stable (see Figure 6).

**Figure 5: Namibia: educational attainment of the employed and the unemployed**

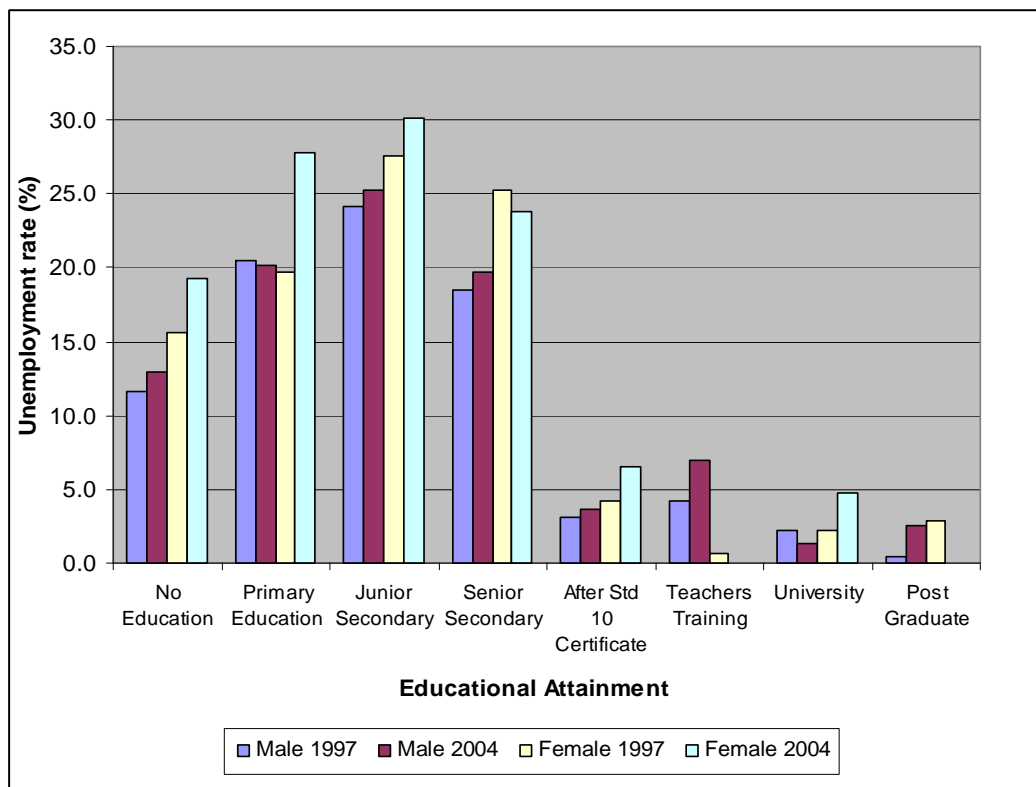


Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 1997 & 2004).

Agriculture is still by far the largest sector in terms of employment, but its share is declining rapidly, in line with the standard development discourse: while the agriculture and fishing sector provided 38.3 per cent of all jobs in 1997, this declined to 29.9 per cent in 2004. For women, the decline was even more pronounced: from 39.1 to 25.1 per cent. Not in line with textbook development, however, was the slight decline of 0.3 percentage points of the employment share of the manufacturing sector. This should ring alarm bells, because manufacturing often is an important engine of development. Equally peculiar is the decline of 2.5 percentage points of the financial intermediation, real estate, renting and business activities sector to a share of 4.4 per cent. The wholesale, retail, trade, hotel and restaurant sector accounts for the main rise in employment share, a very large increase of 8.2 percentage points resulting in a share of 17.4 per cent. For women, the share of the sector even increased from 9.1 to 20.2 per cent. Furthermore, the community, social and personal services accounted for an increase in share of 1.7 per cent. Other sectors remained relatively stable (see Table 4).

With regard to status in employment, trends are in accordance with expectations for a growing developing economy: the share of wage and salaried employment increased by 9 percentage points to 72.9 per cent over the period 1997-2004. For women, the rise was as high as 16.2 percentage points. This rise is accompanied by a small decline in share of own-account workers (1.1 percentage point and 3.2 for women) but especially by a decline in share of contributing family workers by 7.4 percentage points, 12.4 for women (see Table 5).

**Figure 6: Namibia: unemployment rate by educational attainment**



Source: *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 1997 & 2004).

### Exploring linkages between vulnerability, status and sector

It was argued before that own-account workers and contributing family workers should be regarded as vulnerable, in the sense of being at risk of lacking decent employment. In the case of Namibia, the 2004 Labour Survey allows for an analysis of some indicators speaking to dimensions of decent employment that often cannot be addressed on the basis of household survey datasets, such as social protection and social dialogue, and in particular social security registration and union membership.

Both data on social security registration and union membership point at the usefulness of the concept of vulnerability based on status in employment. Just over half (50.5 per cent) of the total employed population in Namibia is registered with social security, but only 5.6 per cent of the own-account workers is registered, and among unpaid family workers registration is a paltry 1.5 per cent (Table 6). Employers and employees are significantly better off, even though there are large differences between (sub-) groups: while 88.5 per cent of all government employees is registered with social security, just 52.6 of private employees and 40.4 per cent of employers are. With regard to gender, the general picture across all status groups is that women are on average less often registered with social security than men. The average difference is 4.7 percentage points, and in the case of the status group of employers group this difference increases to 7.0 percentage points. There are also important differences in social security registration rates between economic sectors. Sectors in which the public sector is important show high registration rates, while

industrial and services sectors show significantly lower levels. On the bottom end is the agricultural sector (29.6 per cent). The highest level of registration is found in financing (74.8 per cent), which again sets this sector apart (Table 7).

**Table 4: Namibia: employment by sector (%)**

Employed 15+	1997	2004	Change 1997 to 2004 (percentage points)
Agriculture, forestry, hunting and fishing			
Both sexes	38.3	29.9	-8.4
Males	37.6	33.7	-3.9
Females	39.1	25.1	-14.0
Mining and quarrying			
Both sexes	1.6	2.0	+0.4
Males	2.8	2.7	-0.1
Females	0.3	1.0	+0.7
Manufacturing			
Both sexes	6.5	6.2	-0.3
Males	6.5	5.6	-0.9
Females	6.4	6.9	+0.5
Electricity, gas and water			
Both sexes	1.1	1.6	+0.5
Males	1.9	2.3	+0.4
Females	0.3	0.7	+0.4
Construction			
Both sexes	4.9	5.1	+0.2
Males	8.3	8.4	+0.1
Females	0.9	0.8	-0.1
Wholesale and retail trade, restaurants and hotels			
Both sexes	9.2	17.4	+8.2
Males	9.2	15.2	+6.0
Females	9.1	20.2	+11.1
Transport, storage and communication			
Both sexes	3.4	4.1	+0.7
Males	5.4	5.9	+0.5
Females	0.9	1.8	+0.9
Financing, insurance, real estate and business services			
Both sexes	7.0	4.4	-2.6
Males	6.3	4.0	-2.3
Females	7.9	4.8	-3.1
Community, social and personal services			
Both sexes	27.5	29.2	+1.7
Males	21.6	22	+0.4
Females	34.6	38.6	+4.0
Not reported or discrepancy			
Both sexes	0.5	0.1	-0.4
Males	0.4	0.1	-0.3
Females	0.6	0.1	-0.5
All activities			
Both sexes	100.0	100.0	
Males	100.0	100.0	
Females	100.0	100.0	

Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 1997 and 2004).

**Table 5: Namibia: status in employment (%)**

Employed 15+	1997	2004	Change 1997 to 2004 (percentage points)
Employees			
Both sexes	63.9	72.8	+9.0
Males	73.1	75.9	+2.8
Females	52.7	68.9	+16.2
Employers			
Both sexes	5.0	5.6	+0.7
Males	6.0	6.6	+0.6
Females	3.8	4.3	+0.5
Own-account workers			
Both sexes	17.8	16.7	-1.1
Males	13.0	13.8	+0.8
Females	23.7	20.5	-3.2
Contributing family workers			
Both sexes	11.7	4.4	-7.4
Males	6.4	3.2	-3.2
Females	18.2	5.8	-12.4
Others/not reported			
Both sexes	1.6	0.4	-1.2
Males	1.6	0.5	-1.1
Females	1.6	0.5	-1.1
All status groups			
Both sexes	100.0	100.0	
Males	100.0	100.0	
Females	100.0	100.0	

Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 1997 & 2004).

Union membership gives people a unified voice and in this way may help balance labour relations and reduce vulnerability. In Namibia, 26.1 per cent of the employed population is a member of an employers' or workers' organization, but, as in the case of social security registration, membership is unevenly distributed among sub-groups. Government employees again show the highest rate of union membership (56.5 per cent), while only 22.6 per cent of all private employees is a union member. Among employers unions membership is 15.4 per cent (Table 6). Looking at the vulnerable status groups, both own-account workers and contributing family workers show extremely low membership rates (below 5 per cent). In comparison to social security registration, gender differences are less pronounced in the case of union membership, but still favour men by 3-4 percentage points. A large difference can be found in the employers group, where more than 18 per cent of all men is a member of a union as compared to less than 10 per cent of women. In none of the sectors listed in Table 7 union membership exceeds more than half of the employed. Membership is lowest in the agricultural sector.



**Table 6: Namibia: social security registration and union membership by status in employment, 2004 (%)**

Employed 15+	Social security registration	Union membership
Government employees		
Both sexes	88.5	56.5
Males	88.0	54.8
Females	89.5	58.4
Private employees		
Both sexes	52.6	22.6
Males	53.5	24.8
Females	51.1	19.1
Employers		
Both sexes	40.4	15.4
Males	42.9	18.3
Females	35.9	9.9
Own-account workers		
Both sexes	5.6	3.8
Males	6.8	4.9
Females	4.5	2.9
Contributing family workers		
Both sexes	1.5	3.9
Males	0.0	4.1
Females	2.5	3.8
Others/not reported		
Both sexes	13.4	8.2
Males	12.1	10.2
Females	15.2	5.6
All status groups		
Both sexes	50.5	26.1
Males	52.5	27.6
Females	47.8	24.2

Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 2004)

Turning to a quantitative analysis of vulnerable employment, it can be seen that vulnerable employment at the national level decreased by 8.6 percentage points to 21.0 per cent in the period 1997-2004, which was for the greater part explained by a 16.2 percentage point decrease in vulnerability in the agricultural sector (see Table 8). Interesting is also the decrease in vulnerability in the financial intermediation, real estate, renting and business activities sector. This decrease, combined with the aforementioned decline in total employment share of the sector, means that many own-account workers with small enterprises went out of business. The most important increase in vulnerability appears in the wholesale, retail trade, restaurants and hotels sector (plus 5.9 percentage points), which comes along the significant increase in share of employment of this sector and needs further inference. Other sectors that show an increase in vulnerable employment are the transport, storage and communication sector (plus 3.4 percentage points) and the mining and quarrying sector (plus 26.9 percentage points, due to the fact that the measured number of own-account workers was zero in this sector in 1997). In general, one can therefore not say that an increase in sectoral employment shares went together with a reduction in vulnerability in Namibia.

**Table 7: Namibia: social security registration and union membership by sector, 2004 (%)**

<b>Employed 15+</b>	<b>Social security registration</b>	<b>Union membership</b>
Agriculture, forestry, hunting and fishing Both sexes	29.6	15.5
Mining and quarrying Both sexes	64.9	41.9
Manufacturing Both sexes	48.5	27.4
Electricity, gas and water Both sexes	73.2	48.3
Construction Both sexes	41.6	21.0
Wholesale and retail trade, restaurants and hotels Both sexes	43.4	20.6
Transport, storage and communication Both sexes	63.3	32.6
Financing, insurance, real estate and business services Both sexes	74.8	26.2
Community, social and personal services Both sexes	67.8	36.5
All activities Both sexes	50.5	26.1

Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 2004).

It was mentioned before that illiteracy is associated with vulnerable employment. Taking a sectoral approach, it is apparent that especially the Namibian agricultural and fishing sector has a high rate of illiteracy of 26.5 per cent in 2004. Furthermore, the mining (18.0 per cent), the utilities (13.0 per cent) and the construction sector (9.8 per cent) all show high illiteracy rates. Similar to Pakistan, the lowest rate of illiteracy can be found in the financial intermediation, real estate, renting and business activities sector, with a rate of 2.5 per cent. When combining illiteracy with employment status, no clear patterns emerge. Although, as one would expect, illiteracy is, with a level of 13.1 per cent, higher in the group of vulnerable employed than in the group of non-vulnerable employed, the difference is only 1.2 percentage points. However, the subgroup of unpaid family workers does show a significantly higher illiteracy rate at 18.9 per cent. This group also explains the strong relation between illiteracy on the one hand and social security registration and union membership on the other at the national level.

**Table 8: Namibia: employment by sector and status (%)**

Employed 15+	1997		2004		Change 1997 to 2004 Own-account workers & contributing family workers (percentage points)
	Employees & employers	Own-account workers & contributing family workers	Employees & employers	Own-account workers & contributing family workers	
Agriculture, forestry, hunting and fishing Both sexes	40.1	59.3	56.6	43.1	-16.2
Mining and quarrying Both sexes	99.4	0.0	73.1	26.9	+26.9
Manufacturing Both sexes	76.5	21.5	77.7	22.0	+0.5
Electricity, gas and water Both sexes	94.4	3.4	97.2	1.1	-2.4
Construction Both sexes	86.2	13.1	90.0	9.7	-3.4
Wholesale and retail trade, restaurants and hotels Both sexes	80.8	18.3	75.2	24.3	+5.9
Transport, storage and communication Both sexes	95.6	4.0	92.1	7.4	+3.4
Financing, insurance, real estate and business services Both sexes	78.5	19.5	94.7	4.6	-14.9
Community, social and personal services Both sexes	92.2	5.7	96.1	3.6	-2.1
All activities Both sexes	68.8	29.6	78.5	21.1	-8.5

Source: Calculations based on *Namibian Labour Force Survey* (Windhoek, Namibian Ministry of Labour and Social Welfare, Directorate of Labour Market Services, 1997 & 2004).

## 5. Sector-status linkages and vulnerability in Brazil

### Recent economic and labour market developments

The Brazilian economy, which is mainly driven by a large export-oriented agricultural sector, a highly diversified and integrated manufacturing sector and an expanding financial sector, has achieved an average GDP growth of 2.3 per cent over the period 1997-2005, which is fairly low for a developing country. Total employment rose from around 69 million in 1997 to around 85 million in 2004 (population aged 15 years and over), the employment-to-population ratio increased to 64.4 per cent, and the labour force participation rate increased by 1.6 percentage points to 68.5 per cent. However, gender differences are important: the male participation rate declined by 1.2 percentage points to 81.2 per cent, while it rose by 4.4 percentage points to 57.0 for women. During the same period the unemployment rate increased from 7.8 per cent in 1997 to 8.9 per cent in 2004,

reflecting a limited rise of 0.4 percentage points for men to a level of 6.8 per cent and a rise of 1.7 points for women, to a level of 11.7 per cent.<sup>26</sup>

Educational attainment is an important determinant of recent developments in labour force participation. For men, the lowest labour force participation rate is in the category of the least educated, and declined in this category most significantly as well: it went down around 3 percentage points over the period 1997-2004 to a level of just below 82 per cent.<sup>27</sup> Participation rates are substantially higher (around 90 per cent) for the category with more than 12 years of schooling, which also saw the smallest decline in labour force participation over the period 1997-2004 (around 1 point). Similarly, the level of participation is strongly linked to educational attainment for women. Participation is just over 40 per cent for the least educated, rises with additional years of education to 60 percent and peaks at around 80 per cent for the category with more than 12 years of education. Returns to schooling are one of the driving forces behind the positive relationship between education and labour force participation. Returns are estimated at around 10 per cent for each additional year of education for employed workers and increase particularly fast among the higher educated.<sup>28</sup> In general, they are higher for women than for men, which can partially explain the high participation differentials between females with different levels of schooling.

Turning to unemployment rates by educational attainment, a pattern emerges in which, for all levels of education, unemployment was on the rise in the 1990s, but started to decline from 2002 onwards. Differences in rates between various subgroups of the labour force are huge, however (see Figure 7). It appears that, for all educational categories, women face a significantly higher unemployment rate than men. Unemployment rates are highest for the group with secondary education (for both men and women), showing levels of 11.5 per cent for men and 19.6 per cent for women in 2005, while the lowest levels of unemployment can be found among the uneducated, with respective levels of 3.3 and 6.0 per cent. The latter are even lower than those for the unemployed with the highest level of educational attainment. This is likely to reflect the notion that the uneducated, which are often overrepresented among the poor, do not have the “luxury” to be unemployed, but instead have to accept work to survive.

## **Exploring linkages between vulnerability, status and sector**

Community, social and personal services is the largest sector in terms of employment, accounting for more than a quarter of total employment in 2005 (see Table 9). Second is trade, which is steadily increasing and accounts for 21.5 per cent. Third is agriculture, still an important sector in Brazil with a share in total

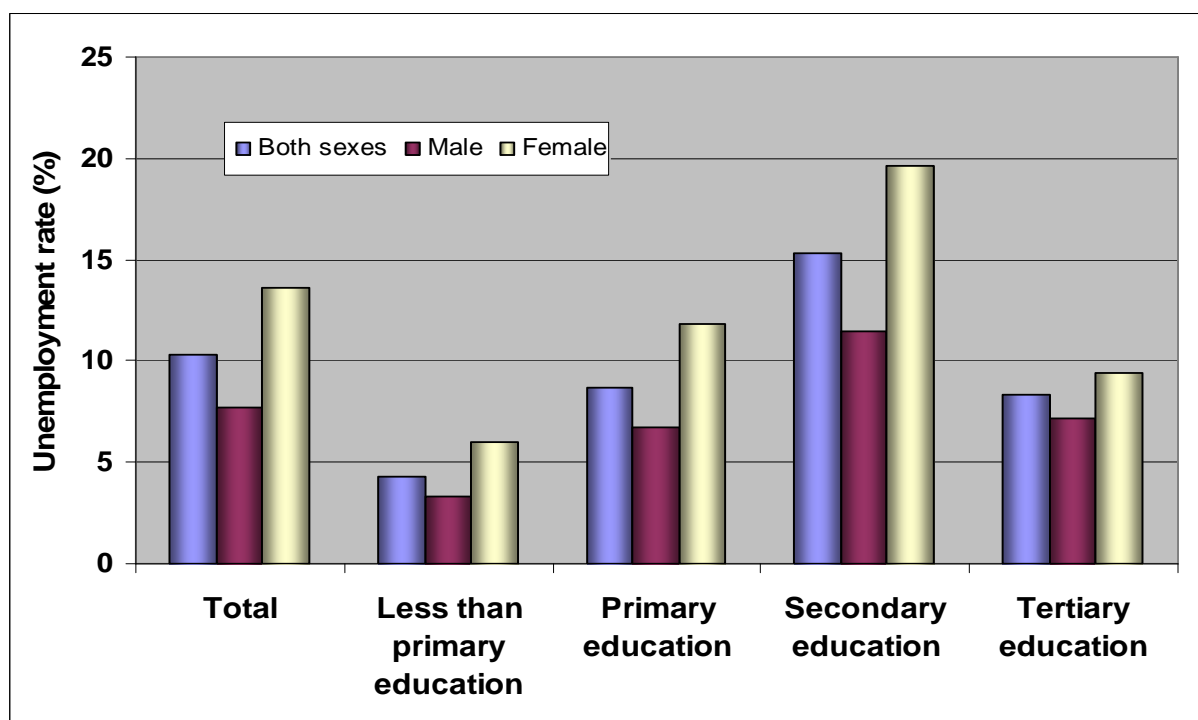
<sup>26</sup> See ILO, 2007a.

<sup>27</sup> See de Mello, Menezes Filho and Scorzaface, 2006, Figure 3, p. 9.

<sup>28</sup> See Ueda and Hoffmann, 2002, Vol. 6, pp. 209-38, cited in de Mello, Menezes Filho and Scorzaface, *ibid.*, p. 15.

employment of 19.6 per cent (down from around 24 per cent in 1997).<sup>29</sup> Fourth is the manufacturing sector, accounting for 14.2 per cent (2 percentage points more than in 1997). The share of employment in the construction sector around 6 per cent is fairly stable, just as in transport and finance.

**Figure 7: Brazil: unemployment rates by level of educational attainment, 2005**



Source: Calculations based on *Pesquisa Nacional Por Amostra Do Domicílios – 2005*, Instituto Brasileiro de Geografia e Estatística.

Before considering some trends in vulnerable employment, it is important to recall the differentiation of wage and salaried work that was highlighted in the case of Pakistan. Even though wage and salaried work can be considered as relatively non-vulnerable, an important distinction in the case of Brazil should be made between registered wage earners holding a social security card (*com carteira*) and those who do not hold this card, and in practice may work without a written contract.<sup>30</sup> The latter group may face a similar risk of lacking decent employment as own-account workers. Furthermore, given that Brazil is an upper middle income country, own-account workers are also likely to be a heterogeneous group, consisting of a relatively high proportion of entrepreneurs as opposed to subsistence workers.

<sup>29</sup> The geographical coverage of the survey used in this paper, the *Pesquisa Nacional por Amostra de Domicílios* (PNAD), was expanded in 2004 to include some predominantly rural areas in the north of Brazil (PNAD, *Notas Metodológicas*, Instituto Brasileiro de Geografia e Estatística, 2004). This expansion of the PNAD is likely to have had a positive effect on the share of agriculture in total employment.

<sup>30</sup> See e.g. Ernst, 2007.

**Table 9: Brazil: employment by sector (%)**

<b>Employed 15+</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>Change 2002 to 2005 (percentage points)</b>
Agriculture, forestry, hunting and fishing					
Both sexes	19.8	19.9	20.2	19.6	-0.1
Males	22.5	23.0	23.5	22.7	+0.2
Females	15.9	15.6	15.6	15.5	-0.5
Mining and quarrying					
Both sexes	0.3	0.4	0.4	0.4	0.0
Males	0.5	0.6	0.6	0.6	+0.1
Females	0.1	0.1	0.1	0.1	0.0
Manufacturing					
Both sexes	13.7	13.7	14.0	14.2	+0.6
Males	14.8	14.8	15.2	15.4	+0.6
Females	12.1	12.2	12.4	12.7	+0.6
Electricity, gas and water					
Both sexes	0.4	0.4	0.4	0.4	0.0
Males	0.6	0.6	0.6	0.6	0.0
Females	0.2	0.2	0.2	0.2	0.0
Construction					
Both sexes	7.2	6.6	6.4	6.6	-0.7
Males	12.1	11.1	10.8	11.1	-1.0
Females	0.5	0.4	0.4	0.4	0.0
Wholesale and retail trade, restaurants and hotels					
Both sexes	20.9	21.3	20.9	21.5	+0.6
Males	21.6	22.1	21.5	22.1	+0.5
Females	19.8	20.2	20.1	20.6	+0.8
Transport, storage and communication					
Both sexes	4.7	4.7	4.7	4.6	-0.1
Males	7.2	7.1	7.1	6.9	-0.3
Females	1.2	1.3	1.3	1.5	+0.2
Financing, insurance, real estate and business services					
Both sexes	6.8	7.0	6.9	6.9	+0.2
Males	7.4	7.7	7.4	7.7	+0.3
Females	5.9	6.1	6.1	6.0	+0.1
Community, social and personal services					
Both sexes	26.0	25.7	25.9	25.5	-0.5
Males	12.9	12.7	12.8	12.5	-0.4
Females	44.3	43.9	43.9	43.2	-1.1
Not reported or discrepancy					
Both sexes	0.3	0.2	0.3	0.2	
Males	0.4	0.4	0.4	0.4	
Females	0.1	0.1	0.1	0.0	
All activities					
Both sexes	100.0	100.0	100.0	100.0	
Males	100.0	100.0	100.0	100.0	
Females	100.0	100.0	100.0	100.0	

Source: Calculations based on *Pesquisa Nacional Por Amostra Do Domicílios – 2002-2005*, Instituto Brasileiro de Geografia e Estatística.

Be this as it may, one can see several trends over the period 2002-2005:<sup>31</sup> the share of employees increased by 0.8 percentage points to a level of 55.9 per cent, while the share of unpaid family workers declined by 0.4 points to a level of 5.7 per cent (see Table 10). Meanwhile, the shares of employers and own-account workers remained more or less constant. As a result, the Brazilian economy shows a gradual replacement of vulnerable employment by non-vulnerable employment, and in 2005 more than 60 per cent of the employed population had a non-vulnerable job (Table 11). For men, vulnerable employment accounted for 33.1 per cent of total employment in 2005, which stands in sharp contrast to the 48.1 per cent for women. The shares of both employers and employees in total employment are higher for men than for women, while women show a significantly higher share in domestic services and unpaid family work.

**Table 10: Brazil: status in employment (%)**

Employed 15+	2002	2003	2004	2005	Change 2002 to 2005 (percentage points)
Employees					
Both sexes	55.1	55.2	56.0	55.9	+0.8
Males	60.4	60.2	61.0	61.4	+1.0
Females	47.7	48.2	49.0	48.5	+0.8
Employers					
Both sexes	4.3	4.3	4.2	4.3	0.0
Males	5.5	5.5	5.4	5.5	0.0
Females	2.7	2.6	2.6	2.7	0.0
Own-account workers					
Both sexes	26.6	26.8	26.2	26.4	-0.3
Males	29.0	29.3	28.6	28.4	-0.6
Females	23.3	23.3	23.0	23.5	+0.2
Workers in domestic services					
Both sexes	7.8	7.7	7.7	7.7	-0.1
Males	0.9	0.9	0.9	0.9	0.0
Females	17.4	17.3	17.1	17.0	-0.4
Contributing family workers					
Both sexes	6.1	5.9	5.9	5.7	-0.4
Males	4.1	4.0	4.1	3.8	-0.3
Females	9.0	8.6	8.4	8.3	-0.7
All status groups					
Both sexes	100.0	100.0	100.0	100.0	
Males	100.0	100.0	100.0	100.0	
Females	100.0	100.0	100.0	100.0	

Source: Calculations based on *Pesquisa Nacional Por Amostra Do Domicílios – 2002-2005*, Instituto Brasileiro de Geografia e Estatística.

<sup>31</sup> This short period of analysis was chosen in view of comparability of data (despite the increased geographical coverage in 2005).

**Table 11: Brazil: employment by sector and status (%)**

Employed 15+	2002		2005		Change 2002 to 2005 Own-account workers & Contributing family workers (percentage points)
	Employees & Employers	Own-account workers, domestic workers and Contributing family workers	Employees & Employers	Own-account workers, domestic workers and Contributing family workers	
Agriculture, forestry, and hunting					
Both sexes	31.8	68.2	32.5	67.5	-0.7
Males	42.9	57.1	44.0	56.0	-1.1
Females	10.3	89.7	9.9	90.1	+0.4
Fishing					
Both sexes	28.2	71.8	18.4	81.6	+9.8
Males	30.9	69.1	20.8	79.2	+10.0
Females	4.8	95.2	5.1	94.9	-0.4
Mining and quarrying					
Both sexes	82.8	17.2	80.1	19.9	+2.7
Males	82.9	17.1	80.6	19.4	+2.2
Females	82.6	17.4	74.0	26.0	+8.6
Manufacturing					
Both sexes	79.4	20.6	77.9	22.1	+1.4
Males	89.6	10.4	88.3	11.7	+1.3
Females	61.5	38.5	60.6	39.4	+0.9
Electricity, gas and water					
Both sexes	99.8	0.2	99.9	0.1	-0.1
Males	99.9	0.1	100.0	0.0	-0.1
Females	99.4	0.6	99.5	0.5	-0.1
Construction					
Both sexes	53.2	46.8	53.6	46.4	-0.4
Males	52.6	47.4	52.9	47.1	-0.3
Females	76.1	23.9	78.2	21.8	-2.1
Wholesale and retail trade, restaurants and hotels					
Both sexes	62.5	37.5	65.2	34.8	-2.7
Males	65.0	35.0	68.0	32.0	-2.9
Females	58.6	41.4	61.2	38.8	-2.5
Transport, storage and communication					
Both sexes	68.3	31.7	70.4	29.6	-2.2
Males	65.7	34.3	67.3	32.7	-1.6
Females	89.0	11.0	90.7	9.3	-1.7
Financing, insurance, real estate and business services					
Both sexes	83.6	16.4	83.8	16.2	-0.2
Males	81.2	18.8	81.5	18.5	-0.3
Females	87.8	12.2	87.9	12.1	-0.1
Community, social and personal services					
Both sexes	61.0	39.0	60.8	39.2	+0.1
Males	83.9	16.1	84.2	15.8	-0.3
Females	51.6	48.4	51.6	48.4	0.0
All activities					
Both sexes	59.5	40.5	60.3	39.7	-0.8
Males	65.9	34.1	66.9	33.1	-1.0
Females	50.4	49.6	51.2	48.8	-0.8

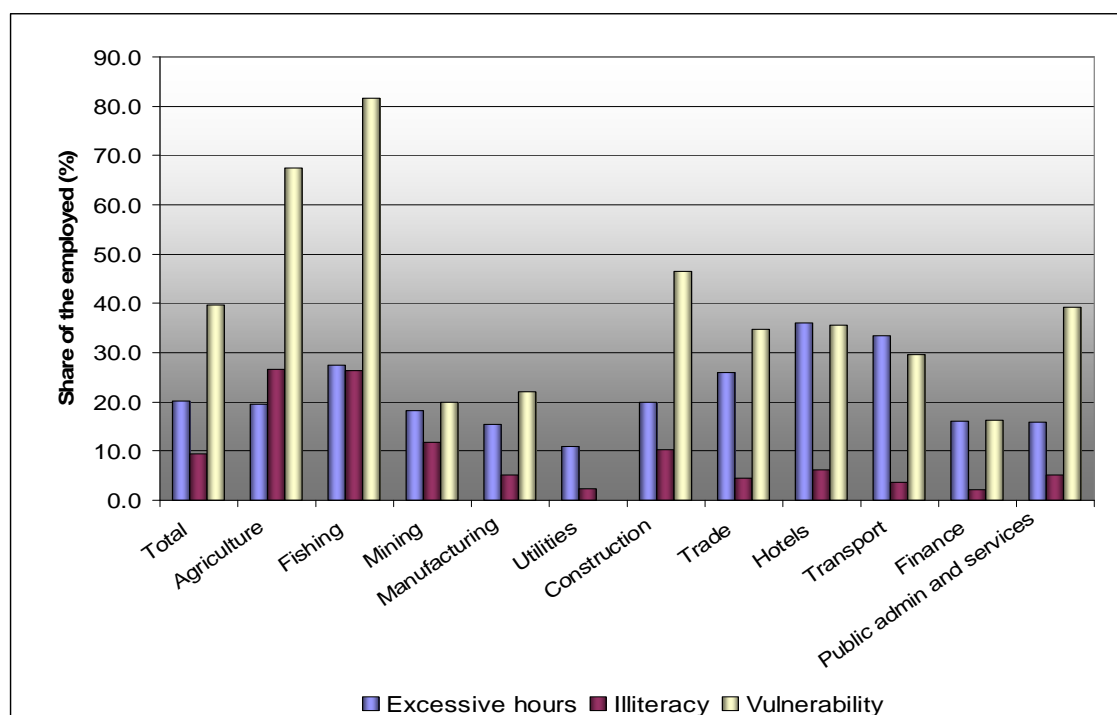
Source: Calculations based on *Pesquisa Nacional Por Amostra Do Domicilios – 2002-2005*, Instituto Brasileiro de Geografia e Estatística.



The decrease in vulnerable employment occurred especially in trade (-2.7 percentage points), a sector leading employment growth during 2002-2005, and transport (-2.2 points). Sectors in which vulnerable employment increased were most notably fishing (+9.8 points), mining (+2.7 points) and manufacturing (+1.4 points).<sup>32</sup>

Excessive hours of work are common in Brazil: around 20 per cent of the total employed worked 50 hours or more per week in 2005. Hotels and restaurants (36.1 per cent), transport, storage and communications (33.3 per cent), and fishing sector (27.4 per cent) stand out in this regard (Figure 8).

**Figure 8: Brazil: excessive hours, illiteracy and vulnerability by economic sector, 2005**



Source: Calculations based on *Pesquisa Nacional Por Amostra Do Domicilios – 2002-2005*, Instituto Brasileiro de Geografia e Estatística.

Due to increasing school enrolment rates, illiteracy rates are trending downward in most sectors of the economy. Illiteracy is however still severe in the agriculture and fishing sectors, which have by far the highest rates in 2005 (around 26 per cent). Other sectors that show high illiteracy rates are the personal services sector (10.3 per cent), the construction sector (10.3 per cent) and the mining sector (11.8 per cent). As in the other country examples in this paper, illiteracy was the lowest in the financial intermediation sector (0.5 per cent).

Similar to Pakistan, Brazil shows a large difference between illiteracy rates among those in vulnerable and non-vulnerable employment: while the illiteracy rate among those in non-vulnerable employment is only 5.5 per cent, those in vulnerable employment have an illiteracy rate of 15.5 per cent. This gap is even more pronounced in the case of women. Overall illiteracy rates are lowest for employers (4.3 per cent) and public sector employees (2.9 per cent) in 2005, and rates are high

<sup>32</sup> Some of the increase in vulnerable employment in agriculture is due to the change in geographical coverage of the PNAD in 2004.

for domestic service workers (10.3 per cent) and contributing family workers (12.6 per cent). Perhaps the most noteworthy is the illiteracy rate among own-account workers at 17.7 per cent, which is substantially higher than the other two vulnerable groups (domestic workers and contributing family workers). This contrasts with Namibia, where unpaid family workers accounted for the highest illiteracy rates, and again underlines the diversity of the group of own account workers that was highlighted before.

In conclusion, vulnerability is slowly decreasing but still a major problem in Brazil. Vulnerable employment is concentrated in agriculture, fishing and construction and personal services, and is associated with illiteracy. The fishing sector deserves special attention, as it stands out in terms of rapidly increasing vulnerability, and high levels of illiteracy as well as excessive hours of work (Figure 8 and Box 3).

## **6. Concluding remarks**

In debates on the merits or demerits of particular indicators, it is easily overlooked that quantitative and qualitative information is complementary. The comparison with assessing the performance of a car can be instructive in this context. Without knowledge of the make of the car, model year and condition of the car and the road, the readings of the instrument panel convey little information. Conversely, if we want to make a statement on the performance of a car we know well, it will be hard to do so without such readings. Similarly, it is very difficult to interpret labour market statistics if the country economic context is not known, or to assess the performance of the labour market without proper labour statistics.

There seem to be at least three options to take the debate on the identification of vulnerable groups in the labour market forward. First, the search can be continued for the single best indicator to capture vulnerability. Given the heterogeneity of labour markets, and the multidimensional nature of decent employment, the merit of this search lies in an increased understanding of labour markets, and not in the likelihood that the best indicator will be found. Assessing labour markets using one indicator inevitably captures only one aspect of the labour market, and limiting the analysis in this way will result in certain errors. Data differentiations, such as the breakdown of status groups, can be used to reduce the margin of error, but do not suffice to eliminate errors altogether. Using more than one indicator to identify a single vulnerable group is not a solution to this problem either, as each indicator will have a certain margin of error, and it is difficult to eliminate all types of errors simultaneously.

The second option is to start from the recognition that decent employment is a multidimensional concept, and decent employment objectives therefore need to be assessed using a comprehensive set of indicators. This is clearly the preferred option, but does not allow for the identification of a single vulnerable segment of the labour market, or the production of a single statistic or indicator which reflects all decent work deficits. Furthermore, even if the production of a comprehensive set of indicators is feasible given the state of statistical and other information systems, not all the indicators that form part of a comprehensive set necessarily allow for a clear-cut distinction between decent and non-decent. Assessments made on the basis of a comprehensive set of indicators may therefore become a complex task.

### **Box 3: Vulnerable employment in the Brazilian fishing sector**

The largest increase in vulnerable employment during 2002-2005 occurred in the fishing and aquaculture sector, which is also a sector characterized by high illiteracy as well as prevalence of excessive working hours. This mixture of indicators pointing at growing decent work deficits warrants further investigation.

According to the Brazilian Bureau of Statistics (IBGE), the total number of employed persons in the fishing sector in 2004 amounted to 380,000; the share of vulnerable employment was more than 80 per cent, consisting mostly of own-account workers.<sup>1</sup> In the same year, the number of fishing enterprises numbered around 2,700, compared to around 1,700 in 2001, employing an estimated number of less than 20,000 people.<sup>2</sup> Over 60 per cent of the enterprises started after 1996, whilst 80 per cent employed less than 5 workers and 95 percent employed less than 20 workers. Average salaries in these enterprises are ranking low among economic sectors. The fishing sector is thus dominated by own account workers alongside a small, but rapidly growing number of recently established micro and small scale firms. The low salary ranking, together with the high illiteracy rate, points at low labour productivity in the sector.

The new, small firms in the fishing sector enter a labour market that is often portrayed as highly-regulated, and with a high tax burden on labour,<sup>3</sup> which, in combination with low labour productivity, is likely to be an important factor in explaining the observed increase in vulnerable employment in the sector during 2002-2005. If these enterprises would recruit employees following formal registration and other procedures, the worker is entitled to retirement benefits, unemployment insurance and severance payments through a special fund created for this purpose (the Fundo de Garantia por Tempo de Serviço, FGTS). The contribution of employers to the FGTS, together with social security contributions, can amount to 100 per cent of the net wage paid to the worker, while it is also costly to fire workers in Brazil. Given this situation, many employers refrain from formal recruitment of workers in the fishing sector.

Even though enforcement in Brazil has improved in recent years, the disincentive to follow formal procedures is further reinforced by the weak enforcement of labour regulation. Marshall (2007), in a study on non-compliance with labour regulation in Latin America, confirms that evasion of labour regulation is disproportionally localized among the smallest firms, influenced by cultural norms and perceptions that evasion of labour regulations is relatively easy.<sup>4</sup> Weak enforcement may also contribute to the prevalence of excessive hours of work in the fishing sector.

The policy challenge in the fishing sector is to reduce vulnerability taking the current economic context into account, including the perceived costs and benefits of labour regulation in the sector. It will clearly be important to raise productivity using various approaches, including skills development, and to create an environment conducive to the generation of decent work. In the short run, consideration could also be given to measures aiming to raise the number of formally recruited employees such as (partially) exempting employers in the fishing sector from contributions to the FGTS and/or social security, while maintaining the benefits for workers. Exonerations of employers' social security contributions have been suggested by the OECD in for all low-paid workers in Brazil.<sup>5</sup> As pointed out by the OECD, this measure would create short-run costs for the public budget, but these costs could be compensated by the increase in the pool of contributors if exonerations would result in better compliance with (other) labour regulations and, in the case of partial exemptions, increased numbers of contributing employees.

In addition, the costs should be balanced against alternative possibilities to improve working conditions in the fishing sector. Given the current conditions in this sector the case for a pilot scheme aiming to reduce decent work deficits, using the dynamism in the sector, is particularly strong.

<sup>1</sup> IBGE, Pesquisa Nacional Por Amostra Do Domicílios – 2004. Note that the change in geographical coverage in 2004 is likely to have led to an increase in the share of vulnerable employment in the fishing sector, but that this share was already very high in earlier years (see Table 11).

<sup>2</sup> IBGE, Diretoria de Pesquisas, Cadastro Central de Empresas, 2001-2004.

<sup>3</sup> R. Almeida and P. Carneiro, "Enforcement of Labor Regulation, Informal Labor, and Firm Performance", *World Bank Policy Research Working Paper 3756* (Washington, D.C., World Bank, 2005).

<sup>4</sup> A. Marshall, 2007, *Explaining non-compliance with labour legislation in Latin America : A cross country Analysis* (Geneva, International Institute for Labour Studies, 2007).

<sup>5</sup> L. de Mello, N. Menezes Filho and L.G. Scorzafeve, "Improving Labour Utilisation in Brazil", *Economics Department Working Papers No. 553* (Paris, Organization for Economic Cooperation and Development, 2006), p. 21.

A third option is to use status in employment as a starting point to assess labour market vulnerability in developing countries, and use additional information and indicators to focus efforts on identifying or measuring decent work deficits. The argument has been made in this paper that the characteristics of the status groups of own-account workers and contributing family workers are likely to make them vulnerable, and this argument could be confirmed empirically with data on certain dimensions of decent employment in Namibia. The survey of the literature showed that status and sector indicators, although clearly not sufficient to capture widely diverging labour market experiences at the country level, are nevertheless powerful tools in understanding labour market developments which can be used to highlight structural changes (sometimes during relatively short periods of time). Furthermore, sector and status data are readily available in most countries, even in those not conducting labour force surveys regularly.

The case studies in this paper aimed to demonstrate the potential of the third option. It was shown that the share of vulnerable employment decreased in Brazil (2002-2005), Namibia (1997-2004), and Pakistan (1999/00-2005/06), but was more pronounced in the latter two countries, which is partly due to the shorter period of investigation in the case of Brazil. The level of vulnerable employment is lower in Namibia (at 21 per cent) than in Brazil (40 per cent), and highest in Pakistan (60 per cent).

In Pakistan, vulnerable economic sectors can be identified based on cross tabulations of sector and status indicators (agriculture and trade), and vulnerability is generally reduced for males in sectors leading employment growth (manufacturing, construction, trade). It was also shown that there may well be workers that are vulnerable within groups identified as non-vulnerable, and there will be some workers that are non-vulnerable within groups classified as vulnerable. In the case of Pakistan, illiteracy proved to be a useful additional indicator for the identification of sectors that were not vulnerable despite a low proportion of employers and employees (finance), or were vulnerable despite a high proportion of employers and employees (e.g. construction).<sup>33</sup>

Identification of vulnerable economic sectors using status and sector indicators in Namibia again pointed at agriculture and trade as sectors in which the bulk of vulnerable employment can be found. However, a key difference with Pakistan is that the overall level of employment did not increase in Namibia during the period under review, and linkages between employment growth and vulnerability could thus not be established. The decrease in vulnerability in Namibia occurred mostly in the agricultural sector, suggesting a certain “regularization” of jobs in a shrinking sector. In contrast to Pakistani labour markets, especially women are benefiting from this process.

In other words, an increasing proportion of the working age population lacks access to decent employment in Namibia, and it was shown that the least educated have been the first to lose prospect of such employment. Strong engines of employment growth are absent, and economic activities which go beyond the

<sup>33</sup> Wages/earnings could be another additional indicator that can be used to better identify vulnerability.

production of primary products and would allow for a move upwards along the value chain are few. Even though educational policies have provided a basis for such a movement, skills development policies have yet to be fully integrated with labour market needs. Illiteracy proved a less informative indicator in the case of Namibia than in Pakistan, in part because of the lower level of illiteracy in the former country. It was nevertheless high among unpaid family workers.

Vulnerability is severe in Brazil despite the higher per capita income in this country and, like in Pakistan, strongly related to illiteracy. Sectors with high shares of vulnerable employment are agriculture, fishing, construction and personal services. The relation between employment growth and vulnerability was less clear than in Pakistan, as employment shares of both trade and manufacturing increased but vulnerability only decreased in the trade sector.

Taken together, the three case studies confirm the well-known vulnerable position of women and point at the agricultural and, to a certain extent, the trade sector, as sectors in which high proportions of vulnerable employment for both women and men can be expected. The case studies also show that employment growth in pivotal sectors such as manufacturing, construction and trade may coincide with reductions in vulnerability, but this link is not automatic. Looking at own-account workers and contributing family workers separately, it is clear that the former group shows more variation terms of indicators related to vulnerability.

The identification of vulnerable groups only serves a purpose if policies are developed to reduce vulnerability. Such policies may be designed to address vulnerability across sectors, or in a particular sector (as illustrated in the case of wage policies in Brazil, Box 3). In both cases, monitoring of vulnerability need not be limited to quantitative information, as qualitative assessments at the sector level can inform decisions regarding the focus of statistical data collection and analysis. Conversely, careful analysis of quantitative data can be used to inform the need for a broader labour market analysis of particular sectors. Both quantitative and qualitative analysis can in this way inform country-specific policy development to reduce decent work deficits.



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