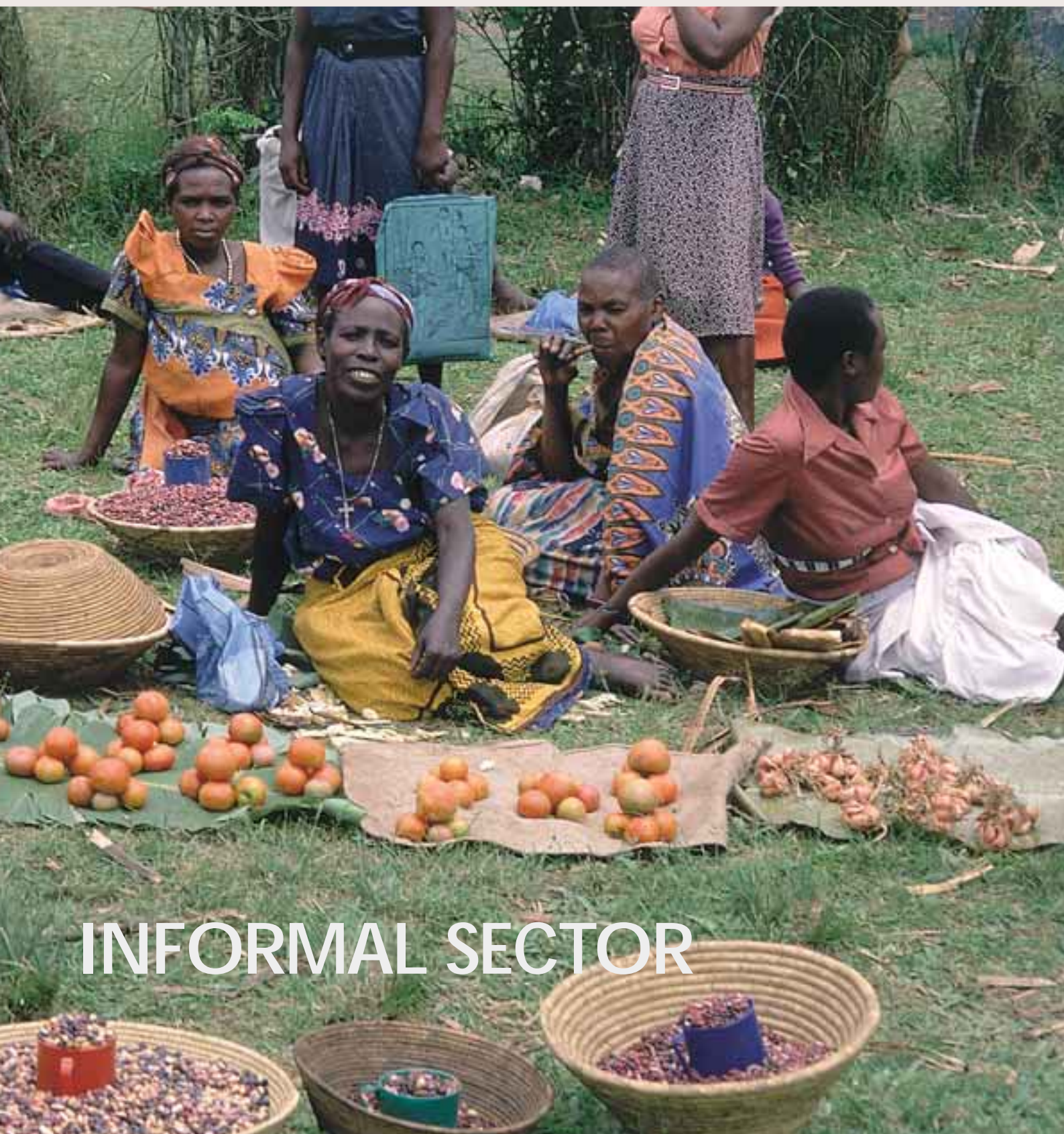


# African Newsletter

## on Occupational Health and Safety

Volume 13, number 1, April 2003



**INFORMAL SECTOR**

# African Newsletter on Occupational Health and Safety

**Volume 13, number 1, April 2003**  
**Informal sector including small-scale enterprises**

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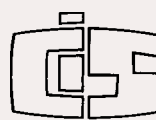


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# Informal sector, including small-scale enterprises

The informal sector is the creation of structural deficiencies in the economies of both industrialized and developing countries. The limited absorptive capacities of our economies result in a situation where the supply of labour exceeds the demand. Consequently, surplus workforce has resorted to engaging in various activities ranging from hawking and street vending to small-scale production of goods and services. On a positive note, therefore, the informal sector provides a source of employment and income for millions of people who would otherwise lack the means of survival. In this regard it is the source of entrepreneurship. The informal sector owes its viability to the vital role that it plays in satisfying the basic needs of the poor, which otherwise would not be met.

In developing countries, the growth of the informal sector has been tremendous, to the extent that in some of these countries it constitutes a major segment of the economy. Not only is the demand for its products and services high among the poor sections of the population; the informal sector also constitutes a most convenient way for the formal sector to obtain products and services cheaply.

Viewed in some circles as a sphere of society that avoids regulations and protection and is a potential breeding ground for crime and social and political unrest, the informal sector has survived tendencies to ignore it and attempts by the state to suppress it. This is so despite the fact that it is characterized by low productivity, relatively unskilled labour, a lack of access to organized markets, limited capital and a lack of access to credit facilities.



The cost in human terms of the existence of the informal sector and the way in which it is sustained is tragic. Participants in the informal sector's activities often toil, for low wages, under poor and inhumane working conditions and in an unhealthy environment. Enforcement and compliance with safety and health standards are unknown. Job security is lacking. Women and children are the most vulnerable groups. The situation of children is especially disheartening because their participation in informal activities denies them the opportunity to acquire education and skills that would enable them to get better jobs. This results in the perpetuation of poverty.

The challenge facing our countries is to come up with clear policies and actions aimed at supporting and nurturing the informal sector, including small-scale enterprises, as well as improve occupational safety and healthy in the sector. I hope that the articles contained in this magazine will facilitate this process.

A handwritten signature in black ink, appearing to read 'C.A. Mojafi'.

C.A. Mojafi  
Commissioner of Labour  
and Social Security  
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Botswana

# Safety and health in the informal economy

I.W.M. Karanja, F.K. Muchiri, A. Muruka  
KENYA

## Introduction

The informal economy, which is defined to cover all semi-organized and unregulated activities that are small-scale in terms of size, number of employees (up to 50 workers) and capital outlay, has continued to play an important role in employment creation in Kenya. This sector includes the Jua Kali (open air) entrepreneurs, small traders, street vendors and hawkers, beach boys, door-to-door service-providers such as hairdressers, etc. The ability of this sector to provide employment for the ever-increasing number of entrants to the labour market, including those being pushed out of formal employment, is widely acknowledged. Given a shrinking public sector workforce and a marked slowdown in overall economic activity which has occasioned massive retrenchments in the private sector, the informal economy has recently been providing the greatest opportunities for employment.

## Policy

In the National Poverty Eradication Plan 1999–2015 of February 1999 (1), the Government aims to facilitate the development of informal enterprises by providing an enabling environment in which they can prosper. Sessional Paper No. 2 of 1992 on “Small Enterprises and Jua Kali Development in Kenya” is the policy blueprint for the development of the informal economy in Kenya. This paper sets out a comprehensive policy framework which includes:

- Providing information on management and entrepreneurial training
  - Upgrading skills of individual entrepreneurs
  - Promoting the transition of micro and small enterprises into medium-scale enterprises
  - Disseminating information on marketing and appropriate technology.
- The National Alliance Rainbow Coa-

lition (NARC) Government plans to create over 500,000 new jobs every year, as outlined in its Party Manifesto. Most of these will be in the informal economy – hence the need for improved techniques aimed at increasing productivity and improving working conditions.

Apart from creating employment, informal enterprises have a number of unique advantages which provide a potential for improvement. These include:

- Managers are usually both the owner and the manager of the enterprise, and hence improvements in productivity and working conditions can be carried out quickly
- The relationship between workers and managers is closer, a fact which favours co-operation
- Managers often work on the shop floor and therefore understand technical problems and are able to adopt

innovative, informal and flexible approaches to solving problems

- Entrepreneurs are highly innovative and are responsive to better and safer technology.

In Kenya, the informal economy employs over 4.2 million people in both rural and urban sectors.

- In 1999, there were about 1.3 million Jua Kali enterprises employing about 2.4 million people (2). However, 88% of the sector employs only 1–2 persons. The number of workers had increased to 4.2 million by 2001. This figure represented 43% of the total working population of 10.5 million.
- 64.9% of the informal economy workers were engaged in trade and services, as compared to 13.4% in the manufacturing industries and 1.7% in construction (4).

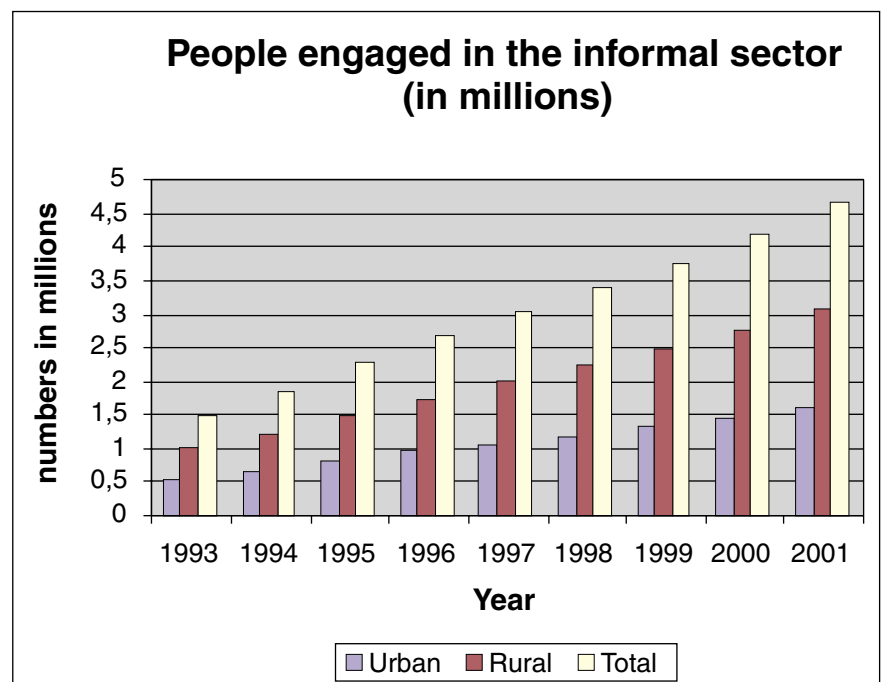


Figure 1. The informal economy in Kenya has been growing at the rate of more than 10% per year (3,4).

- The informal sector created 473,500 additional jobs in the year 2001, representing a rise of 11.4% from 4.1 million in 2000 to 4.2 million persons in 2001 (4).
- Though 50.5% of workers in Kenya have completed primary education, 89.5% have no vocational or professional training (4).

## Safety and health characteristics today

Despite the fact that the informal economy contributes greatly to the economy of the country, it experiences constraints that inhibit the realization of its full potential. For example:

- The fact that most small-scale enterprises are family based and mainly operate outside the main institutional regulatory framework means that they are rarely supervised.
- Even if they are covered by law, their standards of safety and health are so low that they hardly meet the requirements for registration as places of work.
- Occupational accidents and diseases are rarely reported and never compensated.
- Such businesses are not covered by the national social security and health insurance schemes, and when old age or ill-health affects their operators, many of the enterprises go under. (5)

The explosive growth of the informal sector has brought with it more hazards than before. These include physical hazards, biological hazards, mechanical, chemical and psychological hazards, as revealed in a comparative survey involving interviews with 100 workers from four major towns, namely Nairobi, Mombasa, Nakuru and Kisumu (6).

Other constraints commonly observed by Occupational Health and Safety Officers in their day-to-day duties conducting safety and health audits are as follows:

- Many of the small-scale entrepreneurs use obsolete production methods and substitute raw materials of inferior quality.
- Multiple exposures to different hazards occur, especially in cluster zones, due to an excessive number of both people and products in the workplaces.
- There is a frequent lack of personal protective equipment and clothing.
- The very small workshops suffer from poor housekeeping. Tools and materials are usually out of reach and working postures causing strain are common.
- All processes are carried out at the

Table 1. Hazards to which informal sector workers in Kenya are exposed (survey of 100 workers)

Type of hazard	Number of workers exposed
<b>Physical</b>	
Variation in temperatures (heat, rain, cold, etc.)	80
Noise	75
Foreign bodies	52
Burns	4
<b>Biological</b>	
Malaria	100
Parasitic infestations	65
<b>Mechanical</b>	
Cuts	72
Amputation (due to unguarded machinery)	1
<b>Chemical</b>	
Exposure to paints (acids)	90
<b>Psychosocial</b>	
Long working hours	
Starting early (4 am)	60
Burning of products	
Wages not paid on time	

same place at the same time. This produces a lot of noise – apparently far beyond the recommended maximum noise levels of 85 dB(A) for an eight-hour working day.

- There is a lack of welfare facilities and services in the workplaces. Sanitary facilities are non-existent at roadside and open-air enterprises.
- Premises are very makeshift, and most workers are exposed to all types of weather. For those working in proper buildings, the workplaces are not designed to be used as a workplace and often do not have adequate facilities.
- Workers in premises near rivers face the additional problem of mosquito bites.
- A lack of fire fighting appliances means that the number of fire outbreaks is high, as fires (usually for cooking) are lit near flammable materials.
- Workplaces are poorly lit and poorly ventilated.
- There is a lack of healthy drinking water and washing facilities.
- The same clothes are used both at the workplace and in the home.

Between 1992 and 1995, the International Labour Organisation (ILO) developed a methodology entitled Workplace Improvement in Small Enterprises (WISE), working through the Directorate of Occupational Health and Safety Services (DOHSS) in the Ministry of Labour. WISE assisted informal enterprises in improving working conditions and productivity using simple, effective and affordable technologies, which provided direct benefits to owners and workers. It helped entrepreneurs to improve the level of safety and the quantity and quality of their production (7).

The method was based on five principles:

### 1. Building on local practice

The peer learning process of the Jua Kali entrepreneurs is exploited to encourage good practices, especially in the areas of marketing and contracting jobs.

### 2. Focusing on achievements

Rewards are granted to entrepreneurs who improve significantly the level of safety and health through promotional advertising and product marketing; this increases the number of entrepreneurs willing to make improvements.

### 3. Linking working conditions with other management goals

Safety aspects are integrated into the managerial work practices, and owner-managers are educated to understand that safe work pays off and to appreciate the value of involving workers in solving workplace problems.

### 4. Using learning by doing

Owner-managers are in an advantageous position with regard to involving their employees in implementing and participating in health and safety programmes.

### 5. Encouraging exchange of experience

It was found that there is a need to build structures within the informal sector and also between the sector and the formal economy to facilitate the exchange of information, especially in the areas of managerial skills and strategies at enterprises.

## The way forward

It has been seen that Jua Kali workers are exposed to various hazards, most of which are due to ignorance coupled with a lack of skilled training. The large number of Jua Kali enterprises (1.3 million in 1999) makes it impossible for the

Directorate of Occupational Health and Safety Services (DOHSS) to deal with or solve all the safety, health and welfare problems that Jua Kali workers face. Despite this, a lot can be done to reduce the number of risks, hazards and accidents that these workers encounter.

The DOHSS needs to

- Play an advisory role in addition to the enforcement of the law in order to enhance voluntary participation by the Jua Kali workers in applying solutions
- Draw up a programme for continuous health and safety promotion tailored to particular types of groups of Jua Kali workers at their workplaces
- Train instructors by means of detailed but simple and illustrative lectures
- Produce pamphlets and posters on health and safety in the English and Kiswahili languages for distribution to Jua Kali workers
- Use various mass media and electronic media to raise the awareness of the Jua Kali sector concerning health and safety matters and erect billboards at work sites to constantly remind workers of safety aspects and precautions
- Create an all-inclusive Occupational Injury and Health Insurance Scheme for workers in this sector to combat the impact of occupational accidents and diseases
- Co-operate with other stakeholders in encouraging the formation of more societies and associations. These will create fora for information dissemination during their meetings.
- Create a database for free information to the sector. Information should include the latest research on better, safer and more productive tools, etc.
- Come up with an effective means of collecting data on occupational accidents and diseases in order to ascertain their impacts and improve the national profiles.
- Ensure that Jua Kali workplaces being constructed are designed so as to incorporate various aspects of health, safety and work-related welfare. They should be equipped to react effectively to any emergencies, such as fires.

Specific improvements that can be implemented under the WISE methodology (7) for improving the Jua Kali Sector include:

- Provision of tool racks for easy storage and retrieval
- Clearing of materials not in immediate use from the work area to create more room and improve workflow; and making pathways for better layout

Photo by F.K. Muchiri



Workers use home clothes and do not change when going back home thus taking with them hazards from workplace.

- Fitting guards on machines such as those used for grinding, trimming, etc. The guards limit unauthorized removal.
- Provision of fire extinguishers, mainly through the setting up of Jua Kali associations
- Removal of waste from the working areas
- Control of noise from grinding machines by means of enclosure. This should be implemented through the associations. When allocating sheds to the Jua Kali artisans, noisy ones should be segregated and enclosed.
- Introduction of scrap and waste control.

A major challenge is sustaining continuous improvement and making improvements that are long lasting. From the foregoing, it is evident that a multi-stakeholder approach co-ordinated by the DOHSS will be necessary to put the informal economy on a firmer footing in terms of health and safety.

In collaboration with the Department of Small and Micro-enterprises and Other Organizations, the Department of Occupational Health and Safety Services will continue to collect, analyse and disseminate consistent, disaggregated statistics on safety, health and welfare in the informal economy. These statistics will enable and help in the identification of specific policies and programmes aimed at ensuring that the informal economy provides more decent jobs and also at bringing it into the mainstream formal economy.

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# Health care: an unreachable star for small-scale employees in developing countries

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TANZANIA

## Introduction

An unmet need of workers' communities in the informal sector and SMEs in developing countries is *accessibility to affordable and quality medicare services*.

It is thought that, worldwide, half of all workers are engaged in the informal sector. In Tanzania, 46% of the working population are active within the informal sector, which creates about 3 million jobs. Tanzania has gone through transition from free medical services provided in public health facilities in the early 1960s and 1970s to cost-sharing in those facilities in the late 1990s, and later to the introduction of a private/public mix which has opened the door in the country to many privately-owned dispensaries, health centres and big hospitals. Now the transition process has continued to the emergence of health management organizations (HMO) that today manage and control medical insurance for workers in the formal sector. Throughout this transition process the workers in the informal sector have been left to fend for themselves, with little if any assistance. The situation is thought to be not very different in other developing countries.

Here in some areas of Tanzania, the ILO tried to establish a prepaid scheme for workers in the informal sector. The scheme could not be sustained since, to most Tanzanians, the concept of paying for medical care when one is not yet sick, was new – and it still is. Secondly, apart from the acceptability problem, those registered with the scheme were required to contribute for some time before they were allowed to receive medical care. Of course, this was tough, especially if one bears in mind that the majority who joined the scheme had some health problem before registering, and so they needed care soon. Some reports mention that religious organiza-

tions upcountry in Tanzania also attempted to introduce this scheme, targeting farmers who were supposed to pay their one-year contribution after they had reaped their harvest. With unpredictable weather and poor harvests, the majority could not cope.

## Situation analysis

In recent years, the structural adjustment policies in Tanzania have resulted in a decline, of a small percentage, of workers in the formal sector, owing to job cuts and redundancies. These people ultimately join the informal sector. These policies have also led to severe cuts in the health-care budget, and have increased the vulnerable groups outside the labour force, such as the disabled and old persons without families. The current health sector reform, among other things, calls for all people to depend largely on their own devices when confronted with any form of sickness.

Most workers in the informal sector do not have regular jobs whose earnings could be monitored and on the basis of which a mandatory contribution could be collected from both their employers and themselves. Workers in the informal sector are generally left without any protection. The self-employed or those working in micro-enterprises without contracts (mostly women) have very low incomes and live in poverty.

Employees and other people in this sector depend on their daily-spent physical energies to earn the daily wages on which they feed themselves and their extended families, such as young brothers, sisters, wives and children. Their daily physical fitness is their only survival strategy, enabling them to earn their living and that of their dependants. The majority of small-scale entrepreneurs, workers in medium-scale industries, employees, and their families are in poor health because of water-borne diseases, malaria, pulmonary tuberculo-

sis, sexually-transmitted diseases, and childhood diseases associated with malnutrition resulting from the low household income.

Although access to health services is the right of all people, these groups are indirectly denied access to such services because they cannot afford the expenses of medical care.

## At public hospitals

Most of the public health clinics and dispensaries in Tanzania are overcrowded. There are long queues, there is always a lack of essential medicines, and some investigations cannot be done. Moreover, there is cost-sharing. Should the sick small-scale enterprise (SSE) worker or a family member attend these clinics, he/she will spend several hours there, might not be examined properly, might end up getting poor quality care and might even end up without medicine, being required instead to go to purchase the medicines somewhere else despite the cost-sharing. The activities done by most self-employed persons do not allow them to waste time, so they end up working while sick and only go to such centres when they are severely ill, i.e. when the illness does not permit them to perform their daily activities.

## At private hospitals

Private health-care providers in Tanzania range from small dispensaries to health centres and large hospitals, likewise the costs involved and the quality of services depend on those categories. Being low wage earners, SSE workers can only afford to go to small dispensaries, where the quality of medical care provided is poor with limited diagnostic facilities and sub-qualified medical staff. Often they get only partial treatment and become worse after some time. The majority of them then utilize street-side medical stores where they can buy preparations for self-medication, thus

avoiding paying for medical consultation and getting poor health-care services. Only those who have rich relatives able to assist them financially can go to bigger private hospitals.

### What about joining insurance schemes?

Medical insurance is a relatively new thing in Tanzania. Most of the insurance schemes that have been established so far, are targeting employed workers whose monthly earnings are enough to cover the necessary deductions. Workers in multinational enterprises and bigger companies enjoy medical facilities supervised by HMOs. Civil servants cooperate in the national insurance schemes depending on their salary scales. SSE workers could benefit from insurance schemes run by private HMOs, but they cannot afford the charges and they have no security, as their incomes are not regular and depend on seasonal businesses. In fact, they do not qualify to join such insurance schemes.

### The pilot project

The Tanzania Occupational Health Institute (TOHS) is a non-profit making non-governmental organization situated within an industrial area which is surrounded by many SSEs. Once workers in these areas get sick or injured, the only hospital near to them has always been the TOHS hospital, but our charges are always high for them. Being ethical health-care providers, the TOHS gives services to the workers from these SSEs, but at the end of the day who foots the bill? The TOHS is facing an economic dilemma. Ethically we should provide medical care to any Tanzanian falling sick, yet if these individuals or groups cannot pay, how can the TOHS meet the costs involved, bearing in mind that the TOHS receives no government subsidies. To solve this problem, the TOHS designed a prepaid medicare security scheme fund for SSE workers. The TOHS managed to organize some funds through servings and donations from well-wishers. This made it possible to establish a start-up fund which was essential to be able to launch the scheme.

In simple terms, the scheme allows Dar es Salaam SSE owners, workers and family members to receive health-care services at the TOHS health facilities utilizing the start-up fund the TOSH created. At the same time, these people contribute into their own fund, to be utilized once accrual of the fund is completed.

### How does one join?

The SSE group should decide as a

group; no individual registrations are allowed. The group needs to sign a simple contract with the TOHS to show that they have agreed to the regulations of the scheme. Each member then has to pay a membership fee of about Tshs 500 (USD 0.50) to get an identity card for herself/himself and for every other family member who will be registered. The members then contribute Tshs 3000 (USD 3) each month. The amount is paid to the appointed member of the group, who then brings the money to the TOHS weekly or hands the amount over to the project staff, during weekly visits, for deposit into the fund account.

### How is medical care provided?

Medical care is provided at all TOHS health facilities/hospitals. The member is required to produce an identity card and 200 Tshs. A member who has not contributed for at least two weeks may not receive health-care services. The member then has to contribute from 20% to 40% of the total cost of the health-care service given. The hospital, on its part, provides free consultation and free 24-hour accommodation. The following is a summary report of the pilot project.

### Region (project location)

Dar es Salaam

### Project title:

Prepaid Medical Security Scheme for Small Scale Entrepreneurs (SSEs) and their households in DSM.

### Project focus area:

Ilala, Kinondoni and Temeke Districts  
SSE groups involved:  
30 small-scale groups, including women's groups in the target areas.

### Project goal

Provision of a prepaid health service plan to small-scale enterprises

### Expected outcomes

- To establish a prepaid fund to serve the registered members at the end of the project's life cycle
- To create a network among SSE workers by creating participation in a prepaid fund, to be used for health-care expenses for themselves and their family members
- To establish a sustainable basis for further development of participating SSE workplaces with regard to health and safety.

### Project-level outcome achievement

#### a) Improved access to sustainable and affordable health-care services for the participating SSE men, women and their families

- The project has created increased awareness of prepaid medical services among participating SSEs, though the Community Health Care Fund is a new concept among SSEs in Tanzania. Through this project, 758 SSE & family members have joined the scheme.
- Health-care-seeking behaviour has improved among participating SSEs. Some members have identified their health problems through the scheme. One woman recognized that she is suffering from hypertension while attending the normal medical check-up organized by the care scheme. At an interview conducted in an SSE, it was reported that more than 10 SSE members have been tested to determine their HIV/AIDS status through the scheme. Another person who has

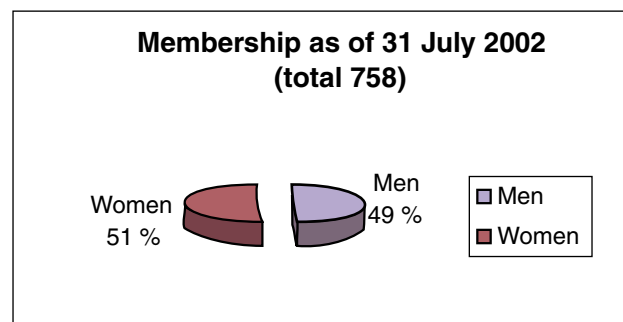


Figure 1. Membership of medicare scheme.

### Project beneficiaries:

Targeted direct beneficiaries	Beneficiaries affected by the project
750	758

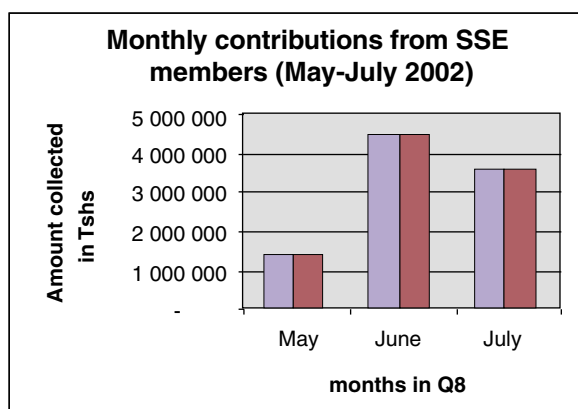


Figure 2. Monthly contributions from small-scale enterprise members.

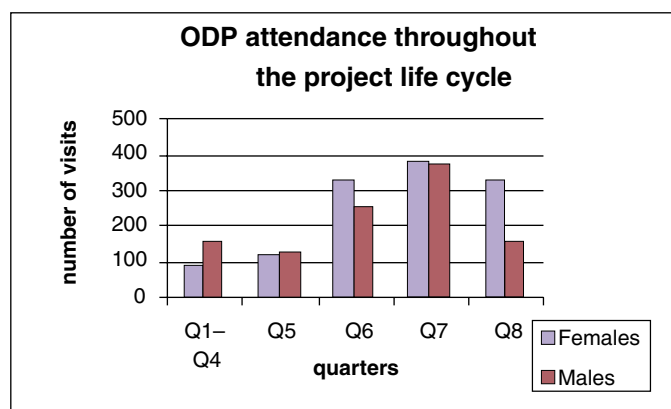


Figure 3. Number of visits throughout the project.

complicated diabetes and hypertension can now work comfortably at his shop after joining the scheme.

- The project has created accessibility to health-care services at reasonable cost for SSEs. All visited groups appreciated the services provided by the scheme, and the majority are currently taking part in the service.
- A small fund of about 12 million Tshs. (USD 12,000) was created from the daily collections of contributions made by the SSE members themselves.

#### b) An effectively functioning Community Health Care Fund is accessible and serves the SSE owners and their households

- 758 SSE beneficiaries are receiving health-care services at the TOHS hospital through the medicare scheme, and 518 (68%) out of 758 are contributing regularly to the scheme
- The amount collected is only 12 million Tshs (USD 12,000). The reasons for such low contributions include: (a) the scheme is a new concept to SSE workers, hence it requires more time for people to accept voluntary contributions toward the scheme; (b)

the low income earned by SSEs, making the level of contribution not very stable; (c) flexibility in mobilizing the contribution was not observed as from the start of the project.

#### c) Better and safer working conditions and practices are maintained by participating SSE owners and workers

- There is an increased use of health and safety facilities among participating SSEs. Seventeen (54%) out of 30 SSE groups have established health and safety committees. Each group also has health and safety facilities such as dustbins, drinking-water buckets, and first-aid kits.
- There is an increased availability of community health providers among participating SSE groups. It was noted that 17 out of 30 groups have trained first-aid providers who are providing first-aid services to group members and are also training other members within the group.

#### Sustainability: strengths

- The project implementers (TOHS) are directly involved in medical service provision. The TOHS is committed to continue providing the health-

care services to SSE members beyond donor funding, utilizing the established fund, but is also looking for additional assistance for the groups.

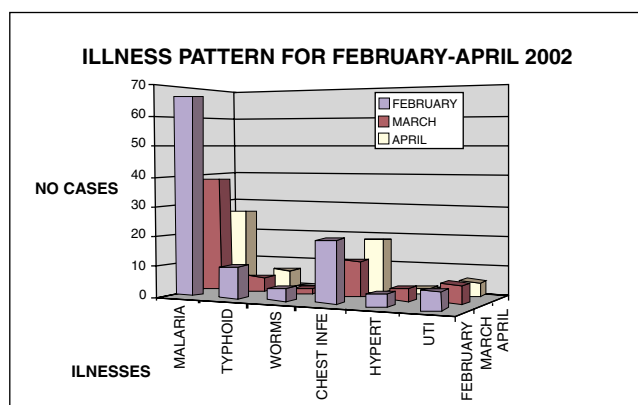
- The trained first-aid providers are based within the group and will continue providing services at their workplaces.

#### Weaknesses

- The current fund available (12 million Tshs, equals about USD 12,000), which was collected through daily contribution, is not adequate to sustain the medicare scheme. This is because the majority of those covered have multiple health problems and are living in poverty, and hence have more health risks.
- There is an irregular contribution toward the medicare scheme. Currently, only 518 (68%) SSE members out of 758 are contributing regularly, and the majority of them joined in the 6<sup>th</sup> and 7<sup>th</sup> quarters. This is due to seasonal nature of the work done by the majority of SSE workers. Thus their income is not regular.
- Some of the groups are not well organized. Hence the mobilization of funds for the medicare scheme becomes difficult and irregular.

#### Lessons learned

- SSE income varies, depending on market availability. Contributions toward the medicare scheme should be flexible, to allow members to contribute more during a season with a high profit, but a widespread educational campaign is required.
- The grace period of more than 2 years, when members are contributing but are also utilizing the start-up fund to have access to medical services, is important for the Community Health Care Fund to be sustainable.
- The medicare scheme should go hand in hand with the promotion of meas-



CHEST INFE = Chest infection HYPERT = Hypertension UTI = Urinary tract infection

Figure 4. Illness pattern for the six quarters for the commonest diseases.

ures to prevent diseases. This strategy reduces disease incidence rates in the participating groups and hence avoids the decline of the Community Health Care Fund through the provision of medical services.

### Recommendations

In future, the funding of the medicare scheme should consider the approach of a pilot project with a start-up fund for two years or more, to serve as a grace period before utilizing the members' contributions. This approach ensures the sustainability of the scheme. In this case, an external donor is required.

This pilot project was the first of its kind. It could be replicated in another area. The sample size of 750 beneficiaries could be increased, in order to provide accessible and affordable medical care, which is in great demand among workers in the informal sector.

### Challenges ahead

Seen against the health-care expenses consumed by HIV/AIDS, with its aftermaths of opportunistic infections, coupled with tropical diseases, poverty, poor nutrition, and poor health knowledge, to mention only a few considerations, the minimal contribution into the established fund, calls for multi-sectoral support. African Ministries of Health would have something to learn from our experiences.

With the problems noted in running the national insurance health fund, which basically targets the formal sector (central government employees), there is dissatisfaction among the beneficiaries. A fund like the one created by the TOHS should take this as a challenge and go in between to meet unmet needs.

The pilot project has clearly shown that the demand for this scheme is rising with the increasing size of the informal sector industry (SMEs and SSEs). Today, additional workers are still requesting to join the scheme, especially after realizing that a prepaid medicare scheme is a real possibility for them. More donors and well-wishers could assist the TOHS by continuing to support the scheme and by increasing beneficiaries.

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# Safety and health in the informal sector and small-scale industries: the experience of Botswana

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### Introduction

The Botswana government has for a long time underscored the need to broaden its economic base. In view of this, a number of policies were introduced for citizen empowerment in the manufacturing and other sectors. The introduction of such economic policies as the Small, Medium and Micro Enterprises (SMME) Policy (1), the Financial Assistance Policy (FAP) and the Industrial Development Policy brought about a mushrooming of small and informal business countrywide. The fact that the informal sector and small enterprises are an important factor in the labour market means that the safety and health of workers in this area must be fostered and not neglected. Occupational safety and health is an important matter that affects the working population, and it should be given adequate consideration at all levels of economic activities in Botswana. The subject of this article is the necessity of a safe and healthy work environment for all workers.

In the light of this, the article discusses the topic of safety and health in the informal sector and small enterprises in Botswana. The article will further make reference to micro enterprises, because in the opinion of the author, there are some similarities between micro enterprises and the informal sector. The similarities are mainly based in the nature of their operations and the number of persons employed by them. Government policies designed to develop and encourage local enterprises will be discussed, as well as the application of the Factories Act (2). Common hazards associated with the informal sector and

small enterprises will be identified, and there will be discussion of how globalization may impact on small and informal businesses.

### Some definitions

There is no standard definition of small enterprises, nor is there any definition for the informal sector because, according to Kelly (3), the informal sector typically operates at a low level of organized activities. The definition for small enterprises may vary from country to country and largely depends on the size of the economy and the level of development of the particular country. The SMME Policy (1) adopted various definitions for different levels of businesses. The definitions are based on the annual turnover (sales) and the number of workers employed, including directors. Small enterprises consist of more than six but less than twenty-five people. Enterprises in the informal sector have five people or less per firm, and micro enterprises have less than six.

### Similarities between informal and micro enterprises

Informal sector firms, like micro enterprises, are generally not registered with licensing authorities such as the Ministry of Trade and Industry. In the case of both the informal sector and micro businesses, production expenditure is often not separated from household expenditure. Assets or capital goods such as buildings and vehicles are used without distinction for both business and the household. Employment is mostly casual and is based on kinship ties or per-



Workshops are mainly open shelters which lack sanitary facilities and potable water and suffer from inadequate refuse disposal methods.

sonal relations rather than on contractual arrangements. In view of this, the article will treat the informal sector and micro enterprises as one and the same thing, although they may differ here and there from a statistical point of view.

### Development and sustainment of the informal sector and small enterprises

The intention of this section is to provide insights into policies designed to promote and encourage citizen empowerment at different levels of business. Although some of the policies have failed occasionally in the past and others are still new, there is a substantial increase in the consolidation of the informal sector and small businesses. Botswana's economy has achieved impressive growth over the years, but this growth has in the past come mainly from the mining and beef industries. Realizing the danger of relying on mining and beef as the only sources of revenue, the Botswana government started to grapple with vexing issues of economic diversification in order to broaden its economic base.

In view of the situation just described, a number of policies were introduced to broaden the economic base by empowering local people in the manufacturing sector and other businesses. The policies were introduced in the recognition of the vital role played by the informal sector and small enterprises in achieving industrial and economic development objectives. The policies were aimed at simultaneously addressing the problem of the growth in unemployment

and at providing satisfying careers for entrepreneurs.

### Employment statistics

Data relating to the informal sector are very scanty in Botswana, probably because, unlike those of the formal sector, informal sector enterprises are often not registered. According to a report of the Bank of Botswana (4), a 1995/96 Labour Force Survey indicated that the informal sector accounted for 17.0% of employment.

SMME policy (1) states that approximately 56 300 SMME businesses operate in Botswana, with 125 000 people employed. Of these businesses, 50 000 are micro enterprises, and 6 000 are small enterprises. Of the micro enterprises, 25% are involved in manufacturing and 10% in other sectors. Whilst among small enterprises 40% are in the service sector (e.g. auto repairs), 20% are in the manufacturing sector and 6% in construction work. The above figures demonstrate that informal and small business indeed contribute substantially to job creation and often constitute the main source of income for certain groups in Botswana's society. However, for some groups, the purpose of such activities is to complement a regular income.

### Associated hazards and problems

Hazards associated with the general operations of the informal sector and the small enterprises do exist, just as they exist in medium-sized and large enterprises.

### Informal sector

As in any other developing countries, the conditions under which most of the workers in informal/micro enterprises operate are precarious and unsafe. Through the above mentioned policies, the government of Botswana, encourages self-employment in order to avoid dependence on the government for a living. The policies also recognize that there are some communities in Botswana that believe in self-employment. The communities have an entrenched belief that their children should work alongside their parents as apprentices in some manufacturing activities. The children are expected to develop skills in auto repairs and metal and carpentry activities.

Most of the above activities take place in households, and the production hazards directly affect living conditions. The risk of family members being exposed to workplace hazards during these residentially operated activities is relatively high, even though the family members may not be engaged in the actual production. It is imperative to mention that children engaged in these activities are at high risk. The reason is simply that children are more susceptible to hazards than are adults, because their bodies are still undergoing developmental processes and growth.

Workshops are mainly open shelters which lack sanitary facilities and potable water and suffer from inadequate refuse disposal methods. Waste disposal becomes a problem because local authorities do not accept the responsibility of collecting such production waste in residential zones unless the workshops are registered with them and a special fee is paid. Thus many workshops in these sectors dispose of hazardous wastes in an improper manner, which, if not monitored, have an adverse impact on the environment. The workers are also at risk of being exposed to extreme weather conditions and hazardous substances.

### Small enterprises

Many of the small enterprises (manufacturing and service sectors) are located in designated industrial zones, and those in the service sector are registered with the local authorities as well as with the Factories Inspectorate Unit. The following hazards are most prevalent in these enterprises – just as they are in the informal sector: poor housekeeping; inadequate work space; use of unsuitable equipment; lack of protective clothing and equipment.

## Types of industry

Common types of industry in the informal sector and among small enterprises include building construction, textiles, upholstery, radio and television repairs, brick making, carpentry, metal work and auto repairs. Textiles, metal shops, auto repairs and brick making are the most common types of industries country-wide, but due to limited space this article will briefly discuss only the first three.

### Textiles

The textile industry is widespread in Botswana and is commonly carried on in households. Because of inadequate work space, machines are usually placed in garages or living rooms, which function as production areas for the informal sector. The most common activities are the manufacturing of school uniforms, dresses, curtains and bedding. There is a high risk of fire, because the materials used are easily ignitable. The problem is further compounded by a lack of fire fighting equipment.

### Metal work

As is the case with textiles, the metal industry is also widespread in Botswana. The activities expose workers to welding sparks, welding arc and fumes, extreme weather conditions and the handling of hot metal. Because the industry is still small and some entrepreneurs experience financial problems, they rarely provide personal protective clothing and equipment. In case of the informal sector, customers and people passing by are also exposed to welding arc because the activities often take place outdoors.

### Auto repairs and panel beating

In the informal sector, motor vehicle repairs, which include panel beating, are often done on the street or in the backyard. Owing to the variety of activities performed, there is a wide range of risks associated with these activities. Risk factors include poor lifting methods, the use of solvents (benzene and thinners), a lack of personal protection, inadequate sanitary and washing facilities, and inadequate fire protection.

## Legal implications

As mentioned earlier, many of the informal sector enterprises operate in residential premises, and they are often not registered. The Factories Act (FA) defines a factory according to the nature of the process – disregarding its operational location. A workplace cannot be

excluded from the definition of a factory only because it operates in the open. The Act also regards an apprentice as an employee, and therefore children working alongside their parents are employees according to the Act. For this reason, these children should be adequately protected against workplace hazards. Hence the need to monitor residentially operated enterprises, which may, however, be difficult. The Factories Inspectorate is generally understaffed, and for this reason priority is always given to enterprises located in industrial zones unless there is a serious complaint from a member of the public.

## Impact of globalization

The increasing pace of worldwide liberalization of trade and economies, as well as new technological processes, have made working conditions more challenging and demanding. As we live in a global village, organizations are expected to use various ILO Conventions relating to safety and health to ensure that working conditions are safe and healthy. Organizations should strive to meet the minimum safety and health standards set out in the ILO Convention No. 155. The introduction of new technologies has brought about substantial changes in the workplace. Workplace hazards are becoming more complex than they were in the past. For example, an increase in the burning of fossil fuel in industries (including businesses in the informal sector and small enterprises) and the emission of fumes by such enterprises have a negative impact on the work environment, and this ultimately affects workers. Secondly, workers' health is at risk because they are constantly exposed to various types of chemicals in their workplaces.

The informal and small enterprises should be aware that though it is a demanding task to apply standards, these standards facilitate access to local and international markets. Information technology (IT) is an important tool in information sharing. Through IT, the informal sector and small enterprises can access important information worldwide concerning ways in which safety and health programmes can be introduced in a workplace. Occupational safety and health as a universal issue should be an integral part of organizational operations, and that improvement of working conditions and worker's satisfaction would result in a more productive workplace and would enhance competitiveness.

## Conclusion

Almost every workplace, including small enterprises and businesses in the informal sector, suffers from one or more hazards. Occupational hazards may have health consequences both for workers and for any other person in the proximity of a production process. Therefore, it is important to separate a workplace from residential premises. As indicated in the above employment statistics, the informal sector and small enterprises play an important role in the labour market as well as in the diversification of the economy in Botswana. In view of this, the safety and health of workers in the informal sector and small enterprises should be recognized to the same extent as it is recognized in medium-sized and large enterprises. In a nutshell, protecting the safety and health of the workers in the face of hazards related to work activities is imperative because it promotes a healthy and vibrant economy in any country.

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# Occupational health and safety in the urban informal economy in Delft, South Africa

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## Introduction

This article presents the results of research on Occupational Health and Safety (OH&S) in the informal sector in South Africa conducted as part of the WHO/ILO Joint Effort on OH&S in Africa (1).

Reasons for paying special attention to OH&S standards in the informal economy are numerous and include a huge and growing share in urban employment (2), inadequate safety and health standards (3), and cheap, easily applicable and practical solutions that could help a vast number of people at a relatively low cost (4). The purpose of this research was to make an inventory of current working conditions and attitudes towards OH&S issues in the case of workers in the informal sector and thus to provide baseline data which would be relevant as an instrument for policy makers in Cape Town and would constitute a starting point for further research.

## Methodology

### Design of the survey

The first phase of the survey had an observational, cross-sectional design based on a random sample; this design was chosen because of the unregulated nature of the informal economy, meaning that most small-scale enterprises (SSEs) did not have licences and were not registered with the government. The survey included workers (m/f) in small-scale enterprises and the informal sector in Delft, Cape Town. Delft is a semi-formal settlement where high levels of poverty, unemployment and anti-social

behaviour are prevalent according to unpublished statistics (1999) from the Spatial Development Framework (SDF), Cape Town.

SSEs were defined as firms employing less than 20 workers. As a precaution (workers became upset when asked about the legal status of their enterprise) and on the basis of early results from the pre-test, which revealed that 95% of the household workplaces were neither registered nor licensed, the assumption was made that all SSEs in Delft are informal.

### The questionnaire and checklist

A modified version of the questionnaire previously used for the ILO study "Health impact of occupational risks in the informal sector in Zimbabwe" (5) was used. The questionnaire was translated into the Xhosa and Afrikaans languages. The questionnaire consisted of five main sections: demographics, occupational injuries, occupational illnesses and mortality, and a hazard checklist including questions on OH&S awareness. The checklist was divided into four occupational hazard categories: (1) mechanical, (2) physical or electrical, (3) chemical or biological agents and (4) ergonomic or psycho-social hazards, plus a section on (the use of) personal protective equipment (PPE).

### Data collection

Forty well-trained students collected data over a period of four days in April 2001. Field workers were told to interview "everybody (m/f) in the house or workplace who is generating an income by working in an SSE or in the informal

sector". An interview normally took around 10 minutes to complete; this included the hazard inspection. Adequate measures, including the involvement of all community leaders, the health committee and the community hospital, were taken to ensure that the survey was ethically sound. Analysis of the data was done using SPSS, version 8.0.

### Attitudes towards occupational health and safety

On the basis of the survey, a high-risk sector was selected in order to investigate attitudes towards OH&S. In this second part of the research, the motivators of 'healthy' behaviour were studied using a questionnaire based on the precede-proceed model of L. Green (6); it included interview questions looking at the pre-disposing (knowledge, beliefs, values and attitudes) and enabling factors (accessibility, availability, skills and laws). As a target group, car repair workers were selected. Tasks of car repair workers included spray-painting and panel-beating as well as mechanical work. The goal was to interview a full-time employee of every car repair shop in Delft.

## Results

### Demographics

A total of 289 questionnaires were adequately completed by field workers and then analysed. In total, 39 different occupations were reported, indicating a wide variety of jobs in the informal sector. Table 1 illustrates the overall job distribution of informal workers in Delft, together with a description of the six

Table 1. Reported jobs per sector of employment

Sector of employment	Job
<b>Retail (53%):</b>	Salesman, fruit and vegetable salesman (outside), florist, shop manager, pub worker
<b>Manufacturing (13%):</b>	Home baking or brewing worker, furniture maker, clothing, textile maker, woodworker, graphic designer, carpenter, whip maker, meat or fish processor
<b>Repair (12%):</b>	Car mechanic, tyre repairer, computer technician, shoe repairman, bicycle mechanic, electrician, boiler repairman, metal recycler
<b>Construction (9%):</b>	Tiler, welder, painter, builder
<b>Service (8%):</b>	Laundry, doctor's assistant, funeral businessman, security officer, day care centre worker, domestic worker, gardener, secretary, tea-girl
<b>Care (3%) :</b>	Hairdresser
<b>Transport (2%):</b>	Driver, breakdown service worker

sectors of the informal economy. As expected, women were predominant in the retail and manufacturing sector. Almost all establishments employed five or less workers. Most workers reported that they were occupied with work seven days a week for a mean of 10 hours a day. This implies an average workload of 70 hours a week.

### Occupational injuries

An occupational injury was defined as an accidental injury keeping a worker off work for 24 hours or more. Table 2 below shows the results derived from the question: "Have you suffered any accidental injury caused by work in the past 12 months?"

From these results, an occupational injury incidence of 83.0 per 1,000 workers was calculated. Male workers had a 4.5 times higher risk of serious occupational injury than did women. Occupational injuries were not distributed evenly over the sectors of employment. Incidences shown were thus made relative to the number of people working in the sector. Table 2 shows that occupational incidence levels were the highest in the more technical sectors of employment. Workers younger than 40 years of age tended to be at higher risk of serious occupational injury than did older workers, although the figure was not statistically significant. Broken bones and fractures were the most common of the reported injuries (22.2%); they were followed by amputations (16.7%).

### Occupational illnesses

An occupational illness was defined as any health problem related to or aggravated by work and forcing an employee to stop working. The self-reported illness incidence rate was 148.8 per 1,000 workers and was the highest in the manufacturing sector (316 per 1,000 workers). The most common forms of ill health were musculoskeletal disorders.

Neck, back and upper and lower limb disorders made up 36.7% of all self-reported illnesses caused by work. High levels of stress or depression and stress-related headaches were reported as being caused by worries about income and crime rates.

### Occupational hazards

In total, 139 hazard inspections were completed by an inspection of an informal workplace. Each hazard category contained approximately ten occupational hazards, which were checked for presence in the workplace. The number of times an occupational hazard was reported to be present was used as a measure. A hazard ratio was calculated by dividing this measure by the number of inspections completed per sector of employment. The results are shown in Table 3.

Table 3 shows that the repair sector is a high-risk sector, where mechanical and physical or electrical hazards in particular prevail. Chemical hazards were most common in the work environment of hairdressers, with the chemicals mostly stored in the open and applied without the use of gloves. The occupational injury incidence appears to be related to the mechanical hazards present in the work environment. It was found that the most prevalent occupational hazards in the urban informal economy are of an organizational, hygienic or ergonomic

nature, indicating that many hazards could be avoided by behavioural change.

### Attitudes towards occupational health and safety – predisposing factors

In total of 21 car repair workers were interviewed on healthy behaviour, all of them male and between 20 and 40 years of age. It became clear that most men had some insight into the occupational hazards of their workplaces but generally lacked thorough factual OH&S knowledge. Only one interviewed worker had ever participated in an OH&S programme – during his work for a formal company. Respondents were able to mention certain safety-related occupational health risks but did not consider these hazards to be dangerous to their health (11 out of 21) or capable of causing a disease (14 out of 21). For instance, most car repair workers considered spray-painting to be dangerous but did not know why or what health effects were related to this job. Apparently, unsafe situations were easier to identify than unhealthy situations. The lack of knowledge often resulted in incorrect and even dangerous interpretations of what behaviour should be adhered to. For instance, some of the men used a surgical mask while spray-painting to protect themselves from exposure to volatile organic compounds.

### Attitudes towards occupational health and safety – enabling factors

Currently, sharing knowledge on good OH&S practices does not occur, as the car repair workers are not organized. When asked, most of the workers (18 out of 21) said they would like to improve their workplace. However, due to strong competition, a lack of demand and the failure of customers to pay bills, the financial situation does not allow workers to invest in a better workplace. Importantly, it was found that when workers do invest in a safer work environment, they opt for relatively expen-

Table 2. Occupational injury incidence per sector of employment

	Care	Manu- facturing	Con- struction	Transport	Retail	Repair	Services	Total
No. occupational injuries	0	12	1	2	1	6	2	24
People working in the sector	9	38	25	5	153	36	23	289
Occupational injuries per 1000 workers	0	315.8	40	400	6.5	166.7	87.0	<b>83.0</b>

Table 3. Occupational hazard ratio's per hazard category and occupational injury incidences over the sectors of employment

	Care (n=8)	Manufacturing (n=17)	Construction (n=2)	Transport (n=3)	Retail (n=80)	Repair (n=19)	Services (n=10)
Mechanical hazard ratio <sup>α</sup>	0.88	2.24	1.0	2	1.09	5	1.1
Physical/electric ratio	1.25	1.35	2.0	0	1.13	2.53	1.40
Chemical/biological agents ratio	3.13	0.65	1	0.3	1.31	1.47	1.8
Ergonomic/psycho-social ratio	4	2.71	3	2.67	2.14	3.74	1.2
Overall hazard ratio	15.7	11.7	11.8	8.5	9.6	21.6	9.3
<b>Occupational injuries per 1000 workers</b>	<b>0</b>	<b>315.8</b>	<b>40</b>	<b>400</b>	<b>6.5</b>	<b>166.7</b>	<b>87.0</b>

n = number of hazard inspections

<sup>α</sup> Hazard ratio: total number of reported hazards in one category divided by number of inspections

sive PPE items. In order to implement primary preventive measures, which are more cost-effective, knowledge is needed.

## Discussion

Even though there has been some thorough research on OH&S in the informal sector in developing countries (5,7,8), this is one of the first times that OH&S standards in the informal economy in South Africa have been the subject of research interest. The data collected give a good overview of the status of OH&S in Delft and illustrate the OH&S position of informal workers in developing countries. We found an occupational injury incidence of 83 per 1,000 workers. This figure suggests an occupational injury incidence level 7.2 times higher than the corresponding incidence in South Africa's formal sector (9,10). In a study among informal workers in Zimbabwe (5), a higher incidence of 208.5 self-reported injuries with more than 24 hours of lost time per 1,000 workers in the urban area was found. This difference might be due to a higher percentage of interviewed retailers in this study, as compared to the Zimbabwean survey. Both studies show the OH&S situation of informal workers to be worrisome, despite opportunities to improve the OH&S situation by implementing certain low-cost, highly effective measures.

Results obtained from informal workers employed in a high-risk sector and questioned on their attitudes towards OH&S suggest that the improvement of their work environment is not one of their top priorities. The financial situation and the fact that occupational hazards and diseases are not always visible, means that the limited resources of the workers are allocated in to fields other than OH&S.

This leaves us with a discrepancy between the gravity of the OH&S situation on the one hand, and the priorities of the workers on the other. Moreover,

the workers in the informal sector do not enjoy a traditional employer-employee relationship in which the employer is obligated to take care of the OH&S-situation on the shop floor.

To overcome this discrepancy, a catalyst is needed to start up a process of change. This catalytic role can be taken upon by different people and organizations. Local governments that realize the potential of the informal sector have recently begun to support the economic and managerial aspects of SSEs in the informal sector. Ensuring basic OH&S standards by promoting occupational hygiene skills should help informal enterprises to fulfil their economic potential and create sustainable business.

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# Occupational exposure to pesticides at flower farms in Northern Tanzania

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## Introduction

Flower farms are new in Tanzania, and there is an intensive use of pesticides at the farms, despite the fact that control mechanisms are not yet in place. The monitoring of pesticide health hazards resulting from the improper handling of pesticides used in plant protection and public health in Tanzania, or from over-exposure to such pesticides, is the responsibility of the Tropical Pesticides Research Institute (TPRI). However, resources available to the TPRI for this purpose are limited, and hence it is difficult to identify areas needing intervention. Externally funded projects such as the East Africa Pesticide Network (EAPN) project in the 1990s, initiated to assess the health hazards posed by pesticides in the region, revealed that in Tanzania pesticides were a health hazard in coffee and cotton areas, where both extension and health care services were also found to be inadequate (1,2). Pesticide hazards at flower farms in Tanzania have never been assessed, but they are a course of concern to workers and residents in areas surrounding the farms. It is known that the majority of the employees at the farms are casual – mostly women (82%) in the age group 18–35 years. Males occupy the small number of skilled-labour and managerial positions. The educational background of employees extends from primary school leavers (68%) to degree level (0.3%). Workers are offered minimum health and safety facilities, at the discretion of employers. Women workers are therefore at higher risk of exposure to pesticides and hence poisoning, because of the pesticides used and the unhygienic work environment and working conditions.

Pesticides are the only poisonous substance used extensively at flower farms, but exposed workers can be adversely

affected. Tragic consequences of exposure to pesticides in greenhouses have been observed in Mexico (3) and other developing countries, the findings showing that younger workers tended to be at greater risk. For flower growers in Kenya, dramatic acetylcholinesterase inhibition due to pesticides exposure was observed during the EAPN study, up to levels believed to be capable of leading to chronic clinical and sub-clinical intoxication (4). Given the frequency and variety of pesticides in flower farming in Tanzania, the size of risk of possible pesticide-induced illness is great. There are no strict rules governing the occupational health or medical monitoring of farm workers. Pesticide-induced illness, whether accidental or occupational, is not likely to be recognized or investigated because of the secrecy and protective atmosphere prevailing at flower farms in Tanzania. Work-

ers at these farms are not aware of the actual health risks due to pesticides in their surroundings.

Riwa and Monyo (5) surveyed eight of the ten flower farms then operating in Northern Tanzania and reported that great variety of agrochemicals were in use in the farms. They further observed that material safety data sheets were not available and instruction manuals on proper chemical handling were scarce. Most workers who handled the chemicals during storage, mixing and spraying reported they did not know what chemicals they were using or their inherent dangers. The investigators also reported that chemicals were improperly stored. Emergency treatment to deal with accidental poisoning was reported to be lacking, and there were no instructions on steps to be taken in the case of accidental spillage or body contact with chemicals. The survey also revealed that

Photo by AVF Ngowi



Workers at flower farms are not aware of the actual health risks due to pesticides in their surroundings.

Table 1. Number of study participants from the different flower farms in Northern Tanzania, November–December 1998.

<i>Flower farm</i>	<i>Number of participants (%)</i>
<i>N=430</i>	
Farm 1	49 (11.4)
Farm 2	73 (17.0)
Farm 3	43 (10.0)
Farm 4	44 (10.2)
Farm 5	52 (12.1)
Farm 6	48 (11.2)
Farm 7	33 ( 7.7)
Farm 8	20 ( 4.7)
Farm 9	19 ( 4.4)
Farm 10	49 (11.4)

there was no training policy for workers or their supervisors on how to recognize early signs and symptoms of pesticide poisoning. Pre-employment and periodic medical examinations were in many cases not conducted or did not conform to statutory stands. Personal protective equipment, provided only to sprayers, was not properly used, and personal hygiene facilities such as showers, toilets and change rooms were inadequate or unhygienic. There were no disposal facilities for waste, including pesticide residues and empty containers. Riwa and Monyo (5) noted that work-

Table 2. Age and occupation of women flower farm workers, Northern Tanzania, November–December 1998.

<i>Age (years)</i>	<i>No. of study subjects (%)</i>
<i>N=245</i>	
10 — 19	29 (12)
20 — 29	172 (70)
30 — 39	31 (13)
40 — 49	6 ( 2)
Unknown	7 ( 3)
<b>Occupation</b>	
Harvester/grower	179 (73)
Grader	46 (19)
Supervisor/manager	11 ( 5)
Canteen attendant	3 ( 1)
Store keeper	1 (0.4)
Packaging	3 ( 1)
Cleaning buckets	2 (0.8)

ers at the flower farms were not provided with special healthcare services and they relied on the government services provided to the general population. The government health services on the other hand could not cater for the special needs arising from occupational exposures at flower farms.

Structured interviews were conducted with workers at eight flower farms in Northern Tanzania, to investigate whether such workers were at high risk of pesticide poisoning.

## Methods

All the flower farms that were operating in Northern Tanzania participated in the study (Table 1). Requests to participate in the study were sent to the farms at the end of October 1998, and by mid-November all the farms had responded, agreeing to the request, except for one farm that responded negatively. However, in collaboration with the Occupational Health Unit (now agency) of the Ministry of Labour and the Tanzania Plantation and Agricultural Workers' Union, the survey was conducted in all ten farms (including the one which responded negatively) where cut flowers were grown for commercial purposes. The Ministry of Labour performed medical examination (results reported elsewhere), whilst the TPRI was responsible for the interviews and observations. The area was chosen because it represented the major flower growing area and the use of pesticides to control pests and diseases was very extensive.

The author collected background information on pesticide use and exposures. The information collected using a checklist included: general data on the farm, such as the location, pest problems, pest control advisors and sources of pesticides; names (trade and/or common) of pesticides used and their active ingredient; and staff particulars, including health surveillance and complaints, work activities and schedules, and safety measures and staff training programmes.

The study population was restricted to employees with a high risk of exposure to pesticides. A convenient sample (limited by time) of workers in different work areas was interviewed and their work practices observed. Subjects doing the actual spraying, harvesting and grading, as well as storekeepers and packaging staff, were included as key subjects at all the farms, and as many people as time permitted were investigated. The women workers (245) were involved in the activities shown in Table 2. The EAPN interview form for

periods of high exposure was modified to suit flower farming, and after translation into Swahili (the official language) and a pre-test, it was filled in during face-to-face interviews conducted by staff from the TPRI and the Ministry of Labour. The questionnaire asked for personal data, work history, lifestyle (smoking, alcohol) and health symptoms as well as containing questions on pesticide activity, work environment, use and state of personal protective equipment (PPE), and personal hygiene. Interviews were conducted at central points at each farm.

Data collected through interviews were coded, entered in a computer and analysed. Frequency distributions for different variables were determined and used to identify health complaints and their prevalence. An analysis of symptoms in relation to occupations was also conducted.

The subjects participated willingly after being assured that their identity would be protected. They were informed of their freedom to drop out at any stage during the survey.

## Results

### *Pesticides used*

The heavy use of pesticides constitutes the main hazard to workers. About 96 active ingredients of pesticides in more than 124 formulations were found at the farms. Of these, 39% were insecticides, 36% fungicides, 16% acaricides, 7% nematocides and 6% herbicides.

WHO class 1a and 1b pesticides in use (Table 3 on next page) included carbofuran, dichlorvos, methomyl, fenamiphos and oxamyl. Substances in the class II group included 2,4D Amine, carbarthyl, diazinon, endosulfan and paraquat. Formulations with arsenic pentoxide as a mixture with copper sulphate were also found in stock.

The use of pesticides at the farms is not controlled sufficiently. About 23% of the pesticides found at the farms were not registered for general use in Tanzania, and 20% were under experimental use category.

### *Activities performed*

The work activities are major sources of exposure. Women were exposed to pesticides while handling flowers or working in sprayed greenhouses; however, none did actual spraying. Activities which might be directly linked to pesticides were as follows:

Table 3. Frequency of formulations in stock at flower farms by WHO Hazard Class, Northern Tanzania, November–December 1998.

WHO Hazard Class		Formulation frequency (%) N=124
Ia	extremely hazardous	9 (7)
Ib	highly hazardous	7 (5)
II	moderately hazardous	27 (22)
III	slightly hazardous	21 (17)
U	unlikely to present acute hazard under normal use condition	48 (39)
NC	not classified (gaseous fumigant)	10 (8)
O	obsolete (discontinued for use as pesticides)	2 (2)

when answering the questions, and others gave incorrect answers. Those who reported having many symptoms may have been in need of reassurance, and some who gave negative answers – even for obvious cases such as skin rash – may have felt threatened by their supervisor.

## Conclusions

The investigation confirmed that workers at flower farms in northern Tanzania were at high risk of pesticide poisoning. There is therefore an urgent need for thorough medical examination for workers at the farms and for regular health surveillance by specialists not associated with the flower farm management. Pesticide use at the flower farms should be reduced and controlled. The investigator also observed that the work environment and conditions could be improved to minimize exposures.

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## Spraying

Male employees, who were provided with basic personal protective equipment, did the spraying. The equipment at many of the farms was in poor condition and was not worn properly.

## Suckering

This activity involved pruning of undesirable flower shoots and was performed mostly by women.

## Harvesting

Harvesting is considered a delicate activity requiring care and patience during the cutting and carrying of flowers, and it was performed mostly by women.

## Grading

Grading involves sorting of flowers into different grades according to colours and quality; it is another delicate activity left to the women.

## Transportation

The men transport the flowers from the greenhouses to the sorting areas, to storage and to airports.

## Packaging

Both men and women packaged graded flowers in small and large packets, depending on the order or destination. The flowers are graded (quality wise) before packing.

## Storage

After grading, the flowers are kept in cold storage rooms before they are dispatched. Men dominated the storage activity.

## General cleaning

The greenhouses needed regular cleaning to minimize plant diseases. Women did the cleaning, as care was necessary during the cleaning of ridges. They also cleaned buckets and other tools at the farm.

## Poisoning symptoms

A high proportion of women workers were temporary employees who had no appropriate protective gear. They were also unaware of the dangers of pesticide exposure, so they did nothing to improve their conditions. The effects of exposures were visible in the frequency of pesticide-related poisoning symptoms. Symptoms recorded during interviews were classified as shown in Table 4 below.

Some of the interviewees felt uneasy

Table 4. Prevalence of symptoms potentially due to pesticide exposure (% reporting symptoms on the day of interview) November–December 1998.

Symptoms	Number of respondents (%)
Feeling tired	91 (37)
Headache	71 (29)
Chest pain	66 (27)
Dizziness	64 (26)
Feeling weak	63 (26)
Runny nose	54 (22)
Poor appetite	47 (19)
Excessive sweating	46 (19)
Abdominal pain	45 (18)

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# OHS policy and legislation in Ghana – stakeholders' workshop report

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## Introduction

The Ministry of Manpower Development and Employment organized a Stakeholders' Workshop at the Royal Ravico Hotel at Nungua in Ghana on 24–25 July 2002, the aim being to give stakeholders the opportunity to provide inputs for the formulation of a National Policy and Legislation on Occupational Safety and Health. This activity is in accordance with the provisions of ILO Convention No. 155, which is being considered for ratification by the Government.

As a basis for discussion, the Workshop, which was organized in collaboration with the Friedrich Ebert Stiftung, used the Report of a Committee set up by the Ministry of Manpower Development and Employment to provide proposals for a review of the existing occupational safety and health (OSH) laws.

## Background

Ghana is a West African state bounded by the Ivory Coast to the west, Togo to the east and Burkina Faso to the north. The waters of the Gulf of Guinea wash the southern shores of the country. The population of Ghana is estimated to be 18.3 million, with an annual growth rate of 2.7%. Ghana has a mixed economy, with over 60% of the workforce engaged in the informal agricultural sector (1).

The management of OSH in Ghana is not co-ordinated; a number of ministries oversee various statutes, which have been introduced in complete disregard of existing ones. The Ministry of Manpower Development and Employment, the Ministry of Health and the Ministry of Mines and Energy share responsibility for the regulation and promotion of OSH. The Ministry of Roads and Trans-

port and the Environmental Protection Agency (EPA) of the Ministry of Environment, Science and Technology are also responsible for aspects of OSH in Ghana.

The independent evolution of these different statutes has resulted in fragmentation, overlapping areas of jurisdiction and inconsistencies in the various laws on OSH operating in the country. These have in most cases led to misunderstandings between the various enforcement agencies and to the annoyance of the managers of firms, who have to deal with various inspectors from the different enforcement organizations that may call within a short time span.

A major deficiency in the present OSH management system is the lack of a national policy on OSH defining the responsibilities of the stakeholder partners – government, employers and employees – as well as the operational jurisdiction of the enforcement agencies. This

has also resulted in inadequate coverage of all economic activities by the existing statutes. For example, there is currently no legislation providing for the safety and health of persons employed in the agricultural and service sectors of the economy while the special needs of women, young children and the physically challenged working in the formal or informal sectors are not addressed. Existing statutes do not provide solutions to emerging hazards such as ergonomic problems and sexual harassment at the workplace, and they do not require proactive management of hazards at the enterprise level.

Other major deficiencies identified during the Workshop were the inadequate budgetary allocation for the enforcement agencies and their poor staffing situation. The Department of Factories Inspectorate, for example, has only twenty-five inspectors to enforce the provisions of the *Factories, Offices And*



Photo by Ministry of Manpower

Group picture of participants and guests invited to the opening ceremony of the Stakeholders' Workshop at the Royal Ravico Hotel at Nungua.

*Shops Act 1970 (ACT 328)* country-wide, while its budgetary allocation for its service activities is nothing to write home about.

## OSH Legislation Review Committee

In 1999, the then Ministry of Employment and Social Welfare, in collaboration with the Ministry of Health and with financial support from Britain's Department for International Development, set up a Committee to develop proposals on OSH policy and legislation for all sectors of the Ghanaian economy. The Committee's mandate was to:

- Review prevailing local legislation to determine deficiencies and overlaps
- Make recommendations for a National Policy on OSH
- Propose general provisions to be included in legislation covering all sectors of economic activity taking cognisance of the needs of women in employment, child workers and the interplay between human health and the general environment.

The Committee was made up of government representatives, as well as representatives from employers' association (the Ghana Employers' Association), the Mines Department, the Ghana Chamber of Mines, the Trades Union Congress (TUC), and some of the country's safety and health experts working in industry as safety managers and consultants. The Committee also had a consultant from South Africa to assist it in its work. The Report of the Committee was submitted to the then Ministry of Employment and Social Welfare in June 2000. However, budgetary constraints made its joint consideration by the various stakeholder partners impossible.

## Sponsorship

At the request of the Ministry of Manpower Development and Employment – the successor to the Ministry of Employment and Social Welfare – the Friedrich Ebert Stiftung (FES) agreed to collaborate with the Ministry in the organization of the Stakeholders Workshop by providing the necessary funds. The Ministry is very grateful to the FES for demonstrating its labour-friendliness by sponsoring activities geared towards the protection of the country's most valuable asset.

## Workshop objectives

The objectives of the two-day Workshop were:

- To formulate a National Policy on

- Occupational Safety and Health
- To determine the legislative and management system that will satisfy the requirements of the formulated National Policy on OSH; and
- To recommend ways and means for the financing of OSH in Ghana.

## Participants

Workshop Participants were mainly drawn from the three main stakeholders – government, organized labour and employers' organizations – and there was also participation from retired OSH specialists, as well as safety managers from industry. The Parliamentary Sub-Committee on Employment, Social Welfare and State Enterprises was well represented throughout the two days. In all, invitations were sent to 100 participants and the daily average attendance was 80 participants.

## Workshop activities

The Opening Ceremony was performed by Dr. S.A. Akoto, who deputised for the Minister of Health. The Deputy Minister for Manpower Development and Employment in charge of labour matters, Hon. Joe Donkor, welcomed participants to the Workshop. The Chairperson for the Opening Ceremony was Mrs. Bridget Katsriku, the former Chief Director of the Ministry of Manpower Development and Employment during whose tenure the whole process of reviewing the OSH laws was initiated.

## Plenaries

The purpose of the first plenary was to introduce the topic for discussion; this was done by the Acting Chief Inspector of Factories, Mr. Samuel Owusu-Mensah. Three Syndicate Groups were then

formed to consider the following issues:

- Syndicate One: National Policy Requirements
- Syndicate Two: National Legislation on OSH
- Syndicate Three: Management System Requirements and the Financing of OSH.

The task of Syndicate One was to deliberate on the issue of the National Policy on OSH and to come up with recommendations addressing national deficiencies. Syndicate Two's function was to consider recommendations on legislation providing for the safety, health and welfare of employed persons. Syndicate Three had the task of considering the Committee's recommendations on the management of OSH in Ghana as well as the recommendations on the financing of OSH.

The second plenary was held during the morning of the second day; its purpose was to enable the Syndicate Group working on policy aspects to provide inputs for the two other Syndicates.

## Syndicate and syndicate activities

The Syndicate Groups worked through the afternoon of the first day and the greater part of the morning of the second day. The Group Reports were presented by the respective group rapporteurs. The three Reports were immediately discussed.

## Workshop outcomes

Participants were of the opinion that:

- The current fragmented legislation on occupational safety and health should be unified into a single coherent body of legislation in order to



One of the Syndicate Groups at work.

Photo by Ministry of Manpower

provide for the effective protection of workers in Ghana

- A National Commission on Occupational Safety and Health (NACOSH) should be established to administer matters relating to OSH
- NACOSH should be sited at the Ministry of Manpower Development and Employment; it should be given adequate authority and should be well funded so as to be able to perform its role effectively
- The existing institutions dealing with OSH matters should maintain their separate identities under NACOSH
- The new legislation should provide protection for women, young workers (workers under the age of 18 years) and physically challenged persons, and it should cover all sectors of the economy (both formal and informal).

## Conclusion

OSH legislation is a means by which the work environment is controlled to ensure that the safety, health and welfare of employees are protected. The Government is very well aware of this fact, and efforts are being made to make ensure that the most valuable asset of the nation is well protected.

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# Information, training and education in occupational health and safety

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## SCETOH Symposium – Ideas that sizzle

In collaboration with the University of North Carolina, School of Public Health, the Johns Hopkins Bloomberg School of Public Health, and the US National Institute for Occupational Safety and Health (NIOSH), the Scientific Committee on Training and Education in Occupational Health of the International Commission on Occupational Health (ICOH) organized a symposium that was held in Baltimore, Maryland, USA, on 28–30 October 2002. The aim of the Symposium, entitled *Best Practices in Occupational Safety and Health, Education, Training and Communication: Ideas That Sizzle*, was to help meet the informational and educational needs that the changing work life poses to occupational health and safety experts. During the three symposium days, various approaches to information, education and training for experts active in occupational health and safety were discussed in detail. Successful practices and examples of communicating information to workers were also presented.

## Meeting on long-term training

On Sunday, 27 October 2002, just before the Symposium, the World Health Organization Occupational Health Programme and NIOSH organized a small-scale meeting on the long-term training of occupational health and safety experts in developing countries.

The participants included several institutes from the United States, such as NIOSH, the University of Illinois School of Public Health, and the University of North Carolina School of Pub-

lic Health, to name a few. In addition, the Canadian Centre on Occupational Health and Safety, the National Institute of Occupational Safety and Prevention (ISPESL) of Rome, Italy, the Asociacion Chilena de Seguridad of Chile, and the Finnish Institute of Occupational Health of Finland were represented at the meeting, where the possibilities of contributing to the long-term training of occupational health and safety experts in developing countries were discussed.

The Canadian Centre has been working on the various forms of providing information over the Web, including pages on practical solutions, and it presented its new ideas and advances during the WHO Network Meeting of the Collaborating Centres in Occupational Health, held at Iguassu Falls, Brazil. This Network Meeting took place immediately before the ICOH2003 World Congress (see page 23).

It was stated at the meeting that there is a need for training at all levels – not only for experts in occupational health and safety but also for workers and managers at workplaces. One of the hopes expressed at the Meeting was to share already existing training materials suitable for use by all interested parties. The Canadian Centre was ready to assist in making the materials easily available and accessible through the Internet. Although it was appreciated that various materials are available through the Internet, the personal and individual character of training was stressed, and it was noted that there is a need for experts to interact and communicate face-to-face at meetings. However, the importance of the Internet and e-mail communication in Africa was emphasized.

## SCOHDev Sessions at ICOH2003 to be consulted

It was also mentioned that the ICOH2003 World Congress at Iguassu Falls will have several sessions on occupational health and development: an African session, an Asian-Pacific session, three sessions for Brazil, and three sessions for Latin America and the Caribbean. It was proposed that these sessions should highlight the needs for long-term training in occupational health in the respective countries and regions.

### Additional information

More information on training materials and other developments in long-term training will be available after the WHO Network Meeting of Collaborating Centres in Occupational Health held in February 2003 at Iguassu Falls. For further information, please contact Dr. Marilyn Fingerhut, WHO, Geneva, by e-mail: [fingerhutm@who.int](mailto:fingerhutm@who.int).

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# Concrete contents to the WHO Network Work Plan

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Photo by A. Tsuzuki

The main topic on the agenda was to review and further develop the work plan, agreed upon in Chiang Mai, Thailand, in 2001. Mr Thebe Pule gave a report on the African situation.

The Sixth Network Meeting of the WHO Collaborating Centres in Occupational Health was organized on 21–22 February 2003 in Iguassu Falls, Brazil. Of the 70 Collaborating Centres in Occupational Health, 47 (39 full members and 8 in the process of designation) were present in Iguassu. Professor Marco Maroni of IPCS, Milan, opened the Meeting and introduced Dr. John Howard of the US NIOSH, who took over the Chair of the Network for the next three-year period. Dr. Marilyn Fingerhut will continue to coordinate the Network activities even though she has recently returned from

WHO, Geneva to the United States. The newly designated Collaborating Centres were welcomed to the Network. In the Fifth Meeting of the Network, held in Chiang Mai, Thailand, it was agreed to try to encourage new Centres from Africa. It was noted with satisfaction that the Network now has three Collaborating Centres in Africa.

The main topic on the agenda was to review and further develop the work plan, agreed upon in Chiang Mai, Thailand, in November 2001. A total of 15 Task Forces worked intensively during the two days. Topics that were covered in the discussion included: Intensive

47 (39 full members and 8 in the process of designation) of the 70 Collaborating Centres in Occupational Health, were present in Iguassu Falls, Brazil.

Experts from left to right Mr Thebe Pule, WHO/AFRO, Dr Harry Caussy, WHO/SEARO, Dr Hisashi Ogawa, WHO/WPRO, Dr Joan Burton, Canada. Ms Evelyn Kortum-Margot, WHO/HQ in the background.



Photo by A. Tsuzuki

partnership in Africa, Guidelines, Child labour, Elimination of silicosis, Collection of training materials in occupational health, Small-scale enterprises and the informal sector, Health care workers, Mental health and well-being, Health promotion, Country and local profiles and indicators, Global burden of disease, Prevention of musculoskeletal disorders, Cost-effectiveness of occupational health and safety, Prevention technology, and Internet and Networking. In addition, four Working Groups on the European Occupational Health Programme convened during the Network Meeting. These were Basic Occupational Health; Agriculture and Rural Health; Health, Environment and Safety Management at Enterprises; and Changing World of Work, including the new risks in work life.

The Occupational Health Programme of the WHO Headquarters in Geneva is planning to publish by mid-May 2003 the Compendium describing all the ongoing activities of the Network related to the implementation of the Network Work Plan.

Some other important items were also on the agenda of the Meeting, such as development of the Network portal and drafting and developing a Resolution on Occupational Health, to be eventually presented to the World Health Assembly. Also, the collection of training materials on occupational health on the web, and the status report of the development of country and local profiles in occupational health and safety were discussed.

Dr. P.K. Abeytunga of the Canadian Centre for Occupational Health and Safety introduced the portal that has been drafted for the Collaborating Centres' Network. The work is well underway, the prototype is being tested and needs still some further development. The perspectives of having a user-friendly and powerful tool for information dissemination of the Network in the near future are promising. The Network portal will also include access to all Collaborating Centres' websites all over the world.

The need for having information and materials on training is great throughout the world, both in the industrialized and developing countries. Dr. Dan Hryhorczuk and co-workers at the University of Illinois have done a lot of work to chart what training materials are available and how to best look for them on the web. His presentation on this issue contained a huge amount of useful information. We have invited him to submit an article on the topic and hope to publish it in the next issue of the African Newsletter, scheduled to come out at the end of August.

Dr. Kari Kurppa of the Finnish Institute of Occupational Health told about the present status of the preparation of country and local profiles and indicators in occupational health and safety. Three books on profiles and indicators in occupational health have been published by the Finnish Institute of Occupational Health, one on establishing country and local profiles, one on 22 European countries' country profiles in

occupational health and safety, and the third describing the province- and community-level profiles in Thailand, Nepal, Sri Lanka, the Philippines, Vietnam, Kenya, South Africa and Tanzania. All these publications can be purchased from FIOH, address <http://www.occuphealth.fi/ttl/osasto/julkaisu/julkluet/eng.htm>.

The Summary Report and the Compendium of the ongoing projects of the Collaborating Centres in the Network Work Plan will be available on the WHO website in due course.

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# ICOH2003 in Iguassu Falls, Brazil

Photo by S. Lehtinen



*The International Commission on Occupational Health organized its 27th World Congress on 23–28 February 2003 in Iguassu Falls, Brazil. The Congress brought together 2,000 participants from all over the world.*

## African Session

The Scientific Committee on Occupational Health and Development organized 8 special sessions, one for Africa. The Session was chaired by Mr. Franklin Muchiri from Kenya. Five presentations were made by Mr. F. Muchiri, Mr. Paul Obua of Uganda, Dr. Edith Clarke of Ghana, Mr. Andrew Okimait of Uganda, and Dr. Nelson Mwaniki Kiama working currently in Botswana.

It was agreed that in order to inform also those who did not have the possibility to attend the ICOH2003 Congress, the papers will be published in the African Newsletter on Occupational Health and Safety 2/2003, coming out at the end of August.

## Jorma Rantanen was elected the New President of ICOH

The most important international professional association in the field of oc-

cupational health and safety, the International Commission on Occupational Health, ICOH, held its World Congress in Brazil. Professor Jorma Rantanen of the Finnish Institute of Occupational Health was elected the new President of ICOH for the next three-year tenure.

Professor Rantanen said in his Presidential Address, that ICOH is approaching its 100-year anniversary to be celebrated in connection with the next World Congress in Milan, Italy in 2006.

The activities of ICOH are based on



Photo by A. Tsuzuki

Professor Bengt Knave, President of ICOH in 2000–2003, handed president's gavel to Jorma Rantanen in the General Assembly on Friday, 28 February 2003.



The Scientific Committee on Occupational Health and Development organized 8 special sessions, one for Africa.

the voluntary action of experts in various countries. In his strategy statement, Professor Rantanen stressed that the role of ICOH is to bring scientific expertise to the service of developing occupational health and safety world-wide. In addition, the training and education of occupational health and safety experts is one of the most central activities in ICOH. Close collaboration between the World Health Organization, WHO, and the International Labour Office, ILO, are seen as necessary prerequisites for the global development of occupational health and safety. 'Excellence in science, efficiency in practice' – these are the goals, in a nutshell, set for ICOH's next three-year period by the new President.

In the new globalizing economies, the working conditions are changing rapidly. Therefore, ensuring occupational health and safety continues to be a pri-



Mr Muchiri chaired the African session.

ority issue in every country. Only 10–15% of the world labour force have access to occupational health and safety services. This means that the ICOH, ILO and WHO still have a lot to do. The goal, 'Occupational Health Services for All', can be achieved only through collaboration, Jorma Rantanen said.

### ICOH started in 1906

ICOH was founded in Milan, Italy, in 1906 when the European occupational health physicians gathered because more than 10 000 workers were severely diseased and died during the construction of the Sankt Gotthard tunnel between Switzerland and Italy. The physicians decided that this was never again to be repeated. The three last years of the first century of ICOH are surely as important as the first three were, said Professor Jorma Rantanen.

ICOH is active in a hundred countries of the world and it has about 1 700 members. The 35 Scientific Committees form the backbone of ICOH activities.

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### Country profiles and national indicators in occupational health and safety

The Finnish Institute of Occupational Health (FIOH) has actively participated in the development of surveillance indicators and occupational health profiles in different parts of world; this also has a high priority on the agenda of the World Health Organization (WHO) and International Labour Office (ILO). A working document of country profiles in occupational health and safety was prepared by the FIOH for the WHO/Euro in 2001. The document was the first major attempt to prepare guidelines for the preparation of health and work country profiles. As a logical continuation of this process, a publication on work and health country profiles of 22 European countries was published in August 2002.

The first step in the development and application of OH&S profiles and indicators in the newly industrialized and developing countries, was taken in October 2001 when the Finnish Institute of Occupational Health organized an *International Workshop on National and Local OH&S Profiles and Indicators* for selected key professionals representing Asia and Africa. The Workshop was financed by the Development Cooperation Department of the Finnish Ministry for Foreign Affairs, ILO and WHO. The main objectives set for the Workshop were attained, i.e. the feasibility of the existing indicators was examined successfully, and a solid basis was created for future cooperation. The Workshop also provided a forum for the participants to exchange views and share experiences.

### Follow-up Meeting in November 2002, Finland

The decision to continue the development of occupational health and safety indicators and profiles, and to organize a Follow-up Meeting was taken in the Workshop in 2001. The Follow-up Meeting was held in connection with the *International Symposium on Youth and Work* on 22–23 November 2002 at Ha-

## International Follow-up Meeting on Local OH&S Profiles and Indicators, 22–23 November 2002, Finland

nasaari Cultural Centre, Espoo, Finland. The organizing of the Follow-up Meeting would not have been possible without considerable financial support by the WHO. In addition to the WHO and ILO attendance at the Meeting, 14 occupational health and safety specialists from Estonia, Nepal, Sri Lanka, Tanzania, Thailand, Vietnam and Finland were present, the majority of whom were the same experts who had taken part in the October 2001 Workshop.

Whereas the Workshop in 2001 focused mostly on country reports and national indicators, the programme of the Follow-up Meeting in 2002 dealt with the feasibility and development of local and provincial level profiles that might serve as benchmarks within a country. In this context, the concept 'local' referred to province, district, sub-district, village – or equivalent. The Follow-up Meeting also gave an opportunity to discuss structures and contents that would be useful for local profiles. In other words, the Follow-up Meeting attempted to develop 'models for profiles' that could be tested later on in several countries. Another objective was to discuss potential strengths and weak-

nesses of local profiles as instruments for improving working conditions and health, and as ways of motivating compilation of local profiles.

The participants of the Follow-up Meeting were invited to present a draft profile of a specific province in their country, and its administrative structures with special reference to OH&S. Taking into consideration the structural and social differences between the countries, the participants were asked to approach the task "with free hands". Some prerequisites guiding the contents and form of these local profiles were nevertheless set. It was agreed that a local profile should give the general characterization of the region/community, so that OH&S issues could be understood in a larger societal context. The participants were also asked to pay special attention to the description of the structure of the economy (industries) and labour force in the given region, because such a description gives important clues about the nature of potential OH&S hazards. As a result of these guidelines and instructions, 10 different local profiles were presented at the Meeting. The profile preparation processes were at different stages in the

participating countries. In the programme of the Meeting, Thailand was used as a reference case, because a feasible local-level work and health profile had been developed furthest there.

### Future plans

The objective of the Follow-up Meeting was to lead on to data collection and preparation of local-level profiles in the participating countries. These objectives were met, and the Meeting succeeded in collecting a great amount of data that can be used for describing and analysing current OH&S activities and potential problems in these countries. At their best, the profiles can help decision-makers to prioritize and compare OH&S activities at the national level. The ultimate objective is, of course, to improve working conditions and the health of workers in these countries. One of the most visible outputs of the Meeting will be a book of Proceedings that will be published by the end of 2003.

At the moment, there are several simultaneous on-going projects dealing with the development of work and health indicators and profiles. In the framework of the WHO Collaborating Centres Network, for example, Task Force 13 is dedicated to the national and local profiles and indicators. As experience has shown, the synergy of cooperation often leads to better results than numerous separate efforts. Therefore, all the data gathered through different indicator and profile projects of the Finnish Institute of Occupational Health, including the material of the November 2002 Follow-up Meeting, will be placed on the web-site of Task Group 13 to be opened in 2003.



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# International Symposium on Youth and Work



The International Symposium on Youth and Work was held on 20–22 November 2002 in Hanasaari Cultural Centre in Espoo, Finland. The three-day Symposium was organized by the Finnish Institute of Occupational Health (FIOH) in close collaboration with the Finnish Ministry of Education, the World Health Organization (WHO), and the International Labour Office (ILO). The Symposium was attended by nearly 110 participants from 29 countries from all over the world, as well as representatives from WHO and ILO.

The idea behind the Symposium rose from several studies demonstrating that successful integration to work life is an important factor in the overall management of life, health and well-being and that the integration has psychological, social and economic consequences. The organizers feel that ensuring decent work and safe and healthy working conditions for young people on the labour market is an important objective, which will benefit not only the young people themselves, but also the enterprises and the society as a whole.

The Symposium aimed to analyse the critical steps towards successful work life during three distinct periods in the life of young people: at school (vocational and secondary school), during the transition from school to work, and a few years after entering work life (as a young worker). The strategies, measures and actions for ensuring successful preparation for work life were also discussed in the course of the Symposium.

Mrs. Maija Rask, the Finnish Minister of Education, opened the Symposium on 20 November 2002, and the representatives of WHO and ILO gave short opening addresses. Each Symposium day had a special theme, and keynote

sessions were held at the beginning of each day. Altogether seven keynote lectures were given by distinguished guest speakers. In the Opening Plenary, the topic of Professor Kari Raivio, Rector of the University of Helsinki, Finland, was “Young workers – The future of nations”. In Plenary I, Professor Bengt Knave, National Institute for Working Life, Sweden, described “Policies and programmes for educating young people for work life and for life”, and Professor Arja Rimpelä, University of Tampere, Finland, spoke of “School as a resource for health at work”. In Plenary II, Professor Richard Price, University of Michigan, USA, focussed on “Supporting the transition from school to work”, and Professor John Bynner, University of London, United Kingdom, talked of “Successful pathways to work life in international comparison”. In Plenary III, Ms Robin Baker, University of California, Berkeley, USA, shed light on “Young workers and a healthy work life: A perspective from the United States”, and Dr Jan Feij, Free University Amsterdam, The Netherlands, stressed the importance of “Work socialization of young people”. In the Closing Session, Professor Jorma Rantanen of FIOH summarized the presentations and the discussions held during the Symposium.

In addition to the keynote lectures there were 34 free oral communications, and 14 poster presentations. Also, a number of educational videos and CD-

ROMs were demonstrated during the poster session and oral presentations. Literature on occupational health and safety and other information material were displayed throughout the Symposium in the foyer of the Hanasaari Cultural Centre.

The Hanasaari Cultural Centre, situated on a picturesque island in Espoo, just outside of Helsinki, offered excellent facilities for the Symposium. Even the weather was favourable: the participants were greeted with fresh snow and sunshine on the second Symposium day. The City of Espoo had arranged a Reception for the participants on the eve of the Symposium at the Karhusaari Art Centre, a summer villa near the Cultural Centre. The Symposium Dinner arranged at Kalastajatorppa Restaurant was attended by about 60 participants. On the last Symposium day, a visit was organized to the laboratories of the Finnish Institute of Occupational Health.

The proceedings of the Symposium will be published in *People and Work*, the Research Report Series of the Finnish Institute of Occupational Health in April 2003. The Proceedings will include all keynote presentations and selected free communications.

The Scientific Programme of the Symposium is available on Internet at [www.occuphealth.fi/e/project/youth-work](http://www.occuphealth.fi/e/project/youth-work).

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