

CHAPTER 1

INTRODUCTION

1.1 Overview of the Chapter

This is an introductory chapter. It introduces the concept of labour-based¹ works (LBW) technology and states the aim of the study. A background to the concepts of work, unemployment, poverty and job creation is presented. The social-economic background of Namibia, the unemployment situation and the extent of poverty in the country are discussed. The national employment creation strategies and the national development plans in relation to poverty alleviation are briefly discussed. The rationale of employment - intensive works technology in Namibia is presented. The meaning of some key words and concepts which feature prominently in this study has also been discussed in this chapter. The chapter concludes with a summary of the study framework, including the aim of the study, the methodology, the structure and the composition of the study report.

1.2 Background

1.2.1 Work, Employment, Unemployment and Poverty

The relationship between work, unemployment, poverty, employment creation, poverty reduction and infrastructure development, in as far as labour-based works technology is concerned, has been a subject of many studies (Bastani, 1988; Croswell et al, 2003; Deveareux, 2002; Edmonds et al, 1986; Forrester, 1996; Howe, 1984; ILO, 1993, 1995; McCutcheon et al, 1990, 1994, 2003; Statt, 1994).

Unemployment is the leading cause of poverty in many developing countries, particularly in the sub-Saharan Africa. In order to examine the problem of unemployment, one needs to consider both work and employment. These terms require clarification. Although the terms “work” and “employment” are often used interchangeably, they are distinctly different. The Oxford Advanced Learners

¹ Definition and discussions provided below in section 1.5.1

Dictionary (1996: 1375) defines work as *“the use of physical strength or mental power to do or make something”*, while employment is defined as *“work, especially in return for regular payment”*. In contrast, unemployment is defined in the same dictionary as *“the state of being without a paid job”*.

Work is essential for the survival and recreation. Work and working fill a central role in our lives, meeting a complex multitude of emotional, social and psychological needs. It provides support, as well as opportunities for gaining recognition and developing competence. Work engenders a sense of purpose and value, offer opportunities for social contacts, and shapes a person’s identity and level of self esteem. At personal level, productive employment not only brings income, but is necessary to maintain human dignity, enhance self-worth and sustain hope for a better future. It is also true, that a human being requires work to survive and propagate. Without work, survival is tenuous at best and poverty all encompassing (McCutcheon et al, 2003). Forrester, 1996 cited in Gonzo, 2002, postulated that we are living in a dream of an old world order in which work would be available for every man on earth. But in the real world today, there is a shortage of opportunities to work. The impact of unemployment is more severe in countries where social unemployment benefits are unaffordable.

In addition to denying people the most basic of needs such as food, clothing and shelter, poverty also binds one into inactivity (Statt, 1994). Poor people are more often regarded as undesirable, and are normally faced with a host of social prejudices against them. As a result they rarely participate in social activities as they find it difficult to integrate into a social order which denies respect to them (Gonzo, 2002). Disrespect and social exclusion creates the experience of personal insecurity and reduces ones sense of personal control. In a classic example, which shows the loss of hope and time perspective, a person who was asked *“How do you see yourself in ten years time?”* and whose reply was *“I don’t even see myself at the end of this week”* (Forrester, 1996).

1.2.2 The Politics of Employment Creation

Many governments seek to improve the quality of life of their citizens in response to their needs and wishes. For decades now, job creation and poverty reduction has been a priority agenda of national policy in virtually all developing countries. In the face of widespread poverty, employment creation is considered an essential policy instrument for the achievement of both growth and redistribution.

On attaining political independence during the 1960s and thereafter, many developing countries embraced economic development policies largely dictated by their colonial masters. It was envisaged that such policies would expedite economic growth and development through industrialization and urbanization, and thus reduce or eliminate poverty, unemployment and other social ills (Bastani, 1988). The main tool for the envisaged rapid transformation was the neo-colonial economic theories and models of the western countries. Yet, four decades down the line, poverty levels and unemployment in the majority of those countries, are still high and increasing.

The quest for industrialization and urbanization as a prerequisite for development led developing countries to encourage the use of capital-intensive machinery. This policy was promoted using subsidies and tax as incentives. The policy approach was also promoted by global financial institutions, including the World Bank, by lending money to those countries to buy equipment. In effect, the development of the conventional system of construction in developing countries was largely a result of policy initiatives aimed at economic growth (McCutcheon, 2003). The failure of these development policies and programmes aimed at GDP growth, urbanization and industrialization in developing countries was already evident in the late 1960s. One of the reasons for such failures was the application of western ideologies and methodologies, without regard to particular characteristics and requirements of developing countries (Bastani, 1998).

Other authors (Allal and Edmonds, 1978; Edmonds and Ruud, 1984) contend that the appropriateness of transferring the technologies of industrialized countries to developing countries, without adaptation to the context and the local circumstances

of those countries can be regarded as a serious neglect by experts. As an example, the development of public infrastructure like roads was dominated by expensive western equipment with little regard to local needs and resources. Mechanized equipment and other capital resources which are few or non-existent in developing countries were imported using scarce foreign exchange, while local labour force which is abundant was underutilized and derived little benefit from capital-intensive construction works.

The growing unemployment problem in developing countries, increasing poverty and the potential for social explosion due to desperation spurred the International Labour Organization (ILO) to seek ways of creating employment opportunities, not only through economic growth, but also in its absence (McCutcheon and Marshall, 1998). Building on earlier work done in India in 1962, the ILO initiated studies on the substitution of labour for equipment (ibid). The results of the ILO studies showed that it is possible to substitute labour for equipment in many construction activities and that in the construction of low volume roads, the labour-based approach would compete economically and financially with equipment, through institutional improvements at certain threshold wage levels. The period which followed further ILO experimentation with employment-intensive works, saw a rapid replication of the technology in developing countries, particularly in Africa (McCutcheon, 2003).

Namibia is one of the countries in Africa which introduced labour-based works technology in construction and maintenance of roads in recent years. The LBW technology programme in Namibia was implemented from 1991, and was largely completed by 2000.

1.3 Namibia: Social Economic Issues.

1.3.1 The Social-Economic Background

Namibia is a south-west African country which borders South Africa in the south, Botswana in the east, Atlantic Ocean in the west, and Angola and Zambia in the north. The country covers an area of approximately 824 000 km². Namibia was first

colonized by Germany between 1886 and 1915, and thereafter by South Africa for about 70 years between 1915 and 1990. It gained its independence in March 1990 after a bloody war of liberation and concerted international pressure on the colonizers.

The population of Namibia gradually increased from a population of 0.74 million in 1970, to 1.03 million in 1981 and 1.41 million in 1991, with a population growth rate characterized by widespread social and economic underdevelopment. According to the 2001 national population census, the population of Namibia was approximately 1.84 million people in 2001 (NPC, 2003). With an average annual population growth of 3%, the population is now estimated to be slightly above 2.0 million people. The country's population is predominantly rural, with 68% of the population living in the rural areas. The current population density averages 2.2 persons per km², one of the lowest in the world. However, the population is unevenly distributed. High population densities are found in the northern areas of the country, where over 70% of the country's population live and it reaches over 100 persons per km² in some areas. In contrast more than 90% of all localities in Namibia have less than 200 people and two third of Namibia's population live in localities with less than 2000 people (NEPRU, 1996). Most of the vast territory is both arid and uninhabitable or semi arid land with limited carrying capacity.

In 2005 Namibia's GDP was estimated to be about US\$2.3 billion and a GDP per capita of approximately US\$1500. The composition of the national economy is made up mainly of primary industries, comprising of agriculture, fishing and mining, (22%), secondary industries, mainly manufacturing, (15%) and the tertiary industry which comprises mainly of services (55% of GDP) (NPC, 2000). Agriculture is by far the most important employer overall, supporting directly and indirectly about 70% of the population. Communal subsistence agriculture provides the livelihood for about half of the population. Table 1.1 provides a summary of recent economic data for Namibia.

Table 1.1: Namibia: Economic Statistics

Gross Domestic Product 1999: N\$21.142 Billion = US\$3.458 Billion (2000 Prices)	
Gross Domestic Product 2000: N\$23.8 Billion = US\$3.449 Billion (2000 Prices)	
GDP per capita, 1999: N\$11703 = US\$1916	
GDP Growth Rate; 1999: = 3.8%	Govt Expenditure as GDP %ge, 2000: 35.5%
GDP Growth Rate; 1993-1999: 3.7%	Deficit as %ge of GDP, 1999: 3.1%; 2000: 3.1%
Export of goods and services as a %ge of GDP; 1999: 46.8%	Import of goods and services as a %ge of GDP; 1999: 58.4
HDI Index, 2000: 0.648	Gini Coefficient, 1996: 0.70
HDI Ranking, 2000: 114	Poor Households, 1994: 38%
Aid Flows, 1998: US\$ 185 million or 3.2% of GDP	Aid per capita, 1998: US\$ 109.

(Source: UNDP: Namibia Human Development Report 2000/2001).

In addition, Namibia inherited a highly skewed national infrastructure on independence. Roads, power lines, dams, irrigations systems, water pipelines, commercial buildings etc were developed only in urban and white commercial farming areas and it was poor or non-existent in other areas. Consequently, on attaining political independence in March 1990, three main challenges which the Government of Namibia (GON) faced were: the high level of poverty, unemployment and a huge backlog in infrastructure development in rural areas (NPC, 1995).

1.3.2 Unemployment in Namibia

Namibia has been burdened by high unemployment for many decades and according to recent estimates, the employment situation is deteriorating. Official figures suggest that unemployment increased from 12% in 1975 to over 20% in 1984, then to about 19% in 1990 at independence (NPC, 1994). The black population experience by far the highest rate of unemployment during the colonial period. In addition, wage and labour conditions then reflected the divisions within

the Namibian society with whites earning the highest salaries and non whites the lowest.

In 1991, it was estimated that Namibia had a labour force of over 820 000 people aged 15 years and above. Of these, 58% were classified as economically active. The unemployment rate was 19.1% (19.6% for men and 18.6% for women) (NPC, 1994). The level of unemployment was much higher among the urban than the rural population being 25.8% and 14.6% respectively. In addition, 41% of the economically active population was underemployed (33% of men and 49% women) (ibid).

Between 1991 and 1994, the labour force increased by an estimated 64 000 people. During the same period, employment in the formal sector increased by 24 000 posts, leaving 40 000 additional people on the labour market seeking opportunities for work (Ministry of Labour, 1997). In 1994 the labour force was estimated to consist of 544 000 people. Of these people, 38% had jobs in the formal economy, 7% were workers on commercial farms, 28% were subsistence farmers, and the rest were essentially unemployed. Low level of education and skills was still an important characteristic of the unemployed. The combined rate of unemployment and underemployment (including subsistence farmers) was estimated in 1996 to be as high as 60% of the labour force, with 60% of about 435 000 adults either unemployed or keen to do more work, and hence classified as underemployed (NEPRU, 1996).

There is in addition a shortage of professionals and a very low skills base in Namibia. Hence, a significant ratio of the unemployed is unemployable. According to the 1991 Census, only 2% of the formally employed were university graduates, and another 4% had technical or teachers training post-school. Further 21% of the unemployed had no schooling, 39% had junior schooling and another 39% had junior secondary education. Only 1% had senior secondary education or higher (NPC, 1994). The seriousness of the shortage of skills was demonstrated by the fact that during 1992/93 financial year, vacancies as a share of employment in the establishment (i.e. available and funded employment positions) which could not be filled due to lack of appropriately skilled personnel were 44.9% in the Government,

13.6% in parastatal and 41.5% in the private sector. Efforts to improve education and skills development was also hampered by the fact that about one half of the nearly 16,000 teachers employed were unqualified (Ministry of Labour, 1994, quoted in NPC, 1994).

In 2001, the labour force constituted about 54% of the population (NPC, 2001). Of these 69% were employed and 31% were unemployed. Forty three percent (43%) of the employed were in the private sector, 20% in the public sector, 10% in self-employment, 12% were unpaid family workers and 6% were individual employers. The number of female-headed households had increased to 45% as compared to 39% in 1991 (ibid). Some employment statistics are summarized in Table 1.2 below.

Table 1.2: Namibia: Some Employment Statistics

Potential Labour Force, 2000: 951794	Economically active, 1991: 547000 (67% of labour force)
Percentage in Agriculture, 1997: 37%	Unemployment, 1997: 35% of economically active.
Percentage in Public Sector: 1997: 21%	Unemployment, 1991: 23% of labour force
Percentage in Industry: 1997: 16%	Unemployed seeking work 1997: 20% of labour force

(Source: UNDP: Namibia Human Development Report 2000/2001).

It can be concluded from the above discussion that despite Government efforts, unemployment in Namibia has risen steadily since 1990; the problem is severe and is growing.

1.3.3 The Extent of Poverty in Namibia

The magnitude and extent of poverty in any country is indicated by two factors: the average level of income and the degree of inequality in its distribution. The more unequal the income distribution is the greater is the incidence of poverty. Similarly, for any given income distribution, the lower the average income level the greater the incidence of poverty.

Although Namibia is classified as a lower-middle income country, the distribution of wealth is not uniform across the landscape and the population. The statistical average GDP per capita hides extremes of excessive wealth and abject poverty and in the living conditions between urban and rural communities. A few people are very rich and the majority are poor. In 1990, the World Bank estimated that 5% of the population received more than 70% of GDP while the poorest 55% controlled only 3% of GDP. It also observed that *“A conservative estimate of absolute poverty, based on an urban poverty line and rural vulnerability to food insecurity, suggests that at least two-thirds of the population are absolutely poor and that as many as three-quarters of all blacks are poor”* (World Bank, 1990). It is perceived that the situation has changed little since.

The World Bank estimates were corroborated by the results of a 1994 National Household Income and Expenditure Survey, NHIES (NPC, 1994). According to NHIES, 5.3% of the population is responsible for 44% of total private consumption and the remaining 94.7% account for 56%. The NHIES revealed that the richest 10% of the population received 65% of the total income (ibid). Furthermore, wages in cash were shown to be the most common source of income (44% of households), followed by subsistence farming (35% of households), pensions (11%), business (6%) and cash remittances (4%). The NHIES concluded that 38% of the Namibia households were poor, and 9% were very poor.

The ‘Namibia Poverty Profile’ report of 1995, prepared with the support of the Swedish International Development Agency (SIDA), suggested that the groups most vulnerable to poverty are the young, the elderly and women. The UNDP Human Development Report (1998) indicated a Gini-coefficient² of 0.67 for Namibia, which is the highest value recorded worldwide. The report concluded that the richest 1% households consume as much as the poorest 50%, and the richest 10% of the population had an average per capita income N\$33012 (1N\$ is equal to 1ZAR) while the poorest half of the population had an average annual poverty line income of N\$464 (UNDP, 1998).

² The Gini Coefficient is a parameter that measures income inequality within a society, where the value of zero indicates absolute equality and the value of 1 indicated absolute inequality. The Namibia Gini Coefficient can be compared with those of Angola (0.42), Botswana (0.43), Malawi (0.40), Zimbabwe (0.57) and South Africa (0.58) given in the UNDP report.

The effect of apartheid during the colonial era magnified the poverty rift along racial lines. Apartheid policies suppressed the economic potential of the non-white population, relocated non-whites to economically underdeveloped and ecologically deprived areas and imposed restrictions on education and employment. “Black” settlements became effectively poverty concentration points, with significant pockets among the coloured community. In these population segments, there are also notable disparities in income levels along gender, age and location lines. Rural households are poorer than urban households and women headed households are the poorest. The social indicators of the quality of life such as life expectancy, literacy, infant mortality etc indicate that the poverty level is high and the perception of poverty is consistent among the black poor communities. Secondary indicators of poverty like isolation, malnutrition, inadequate access to water, large numbers of children, gender behaviour and relations, access to services, access to education etc are also prevalent and consistent among the black population. In addition, it is not yet clear what the effect of the HIV/AIDS epidemic is going to be in the long run, although the general expectation is that it will seriously undermine the income of many families, increase expenditure on health, reducing life expectancy and escalate the level of impoverishment.

It is thus also clear that poverty is widespread and serious. There is a wide consensus in the country regarding the urgency of addressing poverty and unemployment. Although the question of redressing past inequalities features prominently in national policies, additional measures are needed to stimulate and support economic growth, and to redistribute the national wealth in order to reduce the extremely skewed income distribution (NEPRU, 1996). Central to this effort is the government, either directly or indirectly, by creating an environment conducive for the private and public sectors to generate wealth and create employment opportunities.

1.4 Employment Creation Strategies and the National Development Plan.

The use of labour-based methods in the execution of development activities in rural areas was initiated in Namibia in 1991. These initiatives were prompted by the realization by the DOT in the MWTC that labour-based works technology approach was a feasible strategy for addressing the backlog in the provision and

rehabilitation of the road infrastructure in the Ovamboland region, a region with a high population density and high levels of unemployment and poverty³. The MWTC initiatives culminated into a full scale LBW programme. In the ensuing years up to 2002, enabling and supporting policies were put in place and various programmes were formulated and implemented. The use of labour-based works methods was taken at policy level in the NDP1 after it was shown that it had potential to expedite implementation of government policy for the creation of employment in rural areas, and was a cost effective way of addressing the backlog in social and physical infrastructure development like water pipelines, schools, clinics etc.

Creating employment and reducing poverty are two of the four major national development goals of the First National Development Plan (NDP1)⁴ of Namibia. However, the structure of the Namibian economy imposes constraints on employment creation in the formal sector. In the past, GDP growth came from the mainly capital-intensive mining sector, which generated formal jobs benefiting a few. After independence, the largest number of new formal jobs has come from the rapid expansion of Government. This resulted in the overstaffing of the public service (Government of Namibia, 1995). There are also fiscal constraints affecting employment creation by Government because of decreasing revenues, increasing expenditure priorities and debt servicing. Consequently, any Government funding to promote jobs in the public or private sector will entail a high degree of prudence.

In order to solve the unemployment problem, Namibia has to engage in policies that generate economic growth with equity. This means growth that absorbs the mass of the unskilled, underemployed and unemployed Namibians and thus spread income as widely as possible. This requires the Government to shift its focus, in the short to medium term, on more labour and low skill intensive activities with a potential to lead to growth, unemployment and poverty reduction (MWTC, 1999). In addition the focus of job creation has to shift to the private sector, both formal and informal. Hence, sectors with the potential to employ large numbers of unskilled

³ The employment potential of labour-based works was proven in the programmes in Kenya, Ghana, Botswana and elsewhere. A southern Africa study estimated that labour-based road construction projects could generate as many as 75,000 full time jobs in Zimbabwe and 8,271 full time jobs in Lesotho (Stiedl, 1995).

⁴ NDP 1 covered the period 1995/6 - 1999/0. Two other goals of NDP 1 were: (i) reviving and sustaining economic growth and (ii) reducing inequalities in income distribution.

people have to be identified and stimulated. The industries or services encouraged should be those which utilize labour-intensive means of production, rather than capital-intensive, and take up some of the supply of unskilled labour rather than perpetuating a demand for highly skilled labour. The focus of job creation in the private sector should therefore be in labour-intensive, low skill, small enterprises (NEPRU, 1996). The shortcoming of the tertiary and service sectors of the economy in this regard is that they are mostly skill intensive. This requires structural reforms.

In the formal sector, more employment opportunities could arise from institutional reforms in the labour market, employment enhancing policy shifts and private sector wage moderation. The role of the government has to largely remain that of facilitating and creation of the enabling environment and provision of incentives. However, there are technological constraints in the private sector. In the case of manufacturing and mining industries for example, there are constraints on increasing employment since many of these industries are capital-intensive by their very nature. Subjecting them to policies that increase the cost of capital and lower the cost of labour, they could end up being unsustainable.

The Labour and Employment Chapter of NDP1 encourage the utilization of employment - intensive approaches in development in both the private and public sectors. It is emphasized that labour-based public works programmes have the potential to harness the potential of surplus labour, to mitigate the effects of poverty and to promote rural development. In the Economic Structure and Performance Chapter of NDP1 it is noted that;

“A particular factor which has slowed the creation of jobs has been the continued bias of the Namibian economy towards capital-intensive techniques. Some sectors such as diamond mining are inherently capital-intensive. However, in sectors such as construction and industry, there exists the potential for substituting labour for capital. Government has introduced certain policies to encourage such substitution, and it is hoped that these policies will make a more significant impact during NDP1. The need to keep wage increases below productivity rises is an on-going concern.”

Given the high level of unemployment and underemployment in Namibia, one of

the sector strategies of the labour and employment sector was to “*work with the MWTC, MRLGH and MAWRD to continue to try to reduce the level of unemployment by promoting labour-intensive programmes in rural and depressed urban areas*”.

“In addition labour-based programmes of public works will be investigated to address some human resource and environmental problems in order to:

- *Harness the potential resource of surplus labour and even out seasonal fluctuation in employment and incomes, especially in the rural areas with pronounced seasonal unemployment and underemployment.*
- *Mitigate the adverse effect of drought in highly vulnerable areas through utilizing unskilled workers for soil conservation and water-development measures.*
- *Promote rural development centres, community development blocks, small and medium market towns, regional growth centres and focal points.*
- *Government will also encourage the private sector, both formal and informal⁵, to utilize labour-intensive methods as much as possible”. (NPC, 2000).*

Box 1.1 below shows the NDP1 goals and targets for poverty alleviation and employment creation.

⁵ The informal sector of is the employment sector which is unregistered for tax and other official purposes, without a contract of employment or regular wage, and unprotected by the labour legislation.

- 1. Reviving and Sustaining Economic Growth.**
 - a) Achieve average growth in real GDP per year of 5% between 1995 and 2000
 - b) Reduce budget deficit to 3% of GDP by 2000
 - c) Increase and sustain investment at 19% of GDP by 2000
 - Government investment to 6% of GDP by 2000
 - Private sector/Parastatals to 13% of GDP by 2000
 - d) Increase Real Growth National Income per capita by 12% between 1995 and 2000 (from N\$6930 in 1995 to N\$7720 in constant 1995 prices).
 - e) Diversify export and import markets to reduce the share of trade with South Africa.

- 2. Creating Employment**
 - a) Increase wage (formal) employment by 70,000 by year 2000.
 - b) Increase informal employment by 40,000 of which:
 - Subsistence agriculture employment by 30,000
 - Other formal employment by 10,000.
 - c) Reduce the population growth rate to below 3.0% by 2010.

- 3. Reducing Inequalities in Income Distribution**
 - a) Reduce the proportion of households below half average income from 60% in 1994 to 50% by 2000.

- 4. Reducing Poverty**
 - a) Reduce the proportion of poor households from 47% in 1994 to 40% by 2000.
 - b) Reduce the proportion of severely poor households from 13% in 1994 to 7% by 2000.

Box 1.1: NDP1: National Development Goals: Targets.
 (Source: National Planning Commission, Windhoek. 1995.)

The evaluation of NDP1 achievements and shortcoming regarding the objectives of creating employment, reducing inequalities in income distribution and reducing

poverty shows that, although there was marked progress, the objectives were not largely achieved (NPC, 2000). NDP1 implementation problems included among others;

- the lack of appropriate coordination;
- the lack of focus;
- the lack of human resources capacity; and
- fiscal constraints.

Regarding employment-intensive strategies, progress was made at policy and operational levels. A major success was the introduction of the labour-based works technology and its implementation in the transport sector. The Labour-Based Works Policy was also subsequently adopted.

The objectives of NDP1 were largely carried over to NDP2⁶, as they formed the backbone of the national policy in poverty alleviation.

1.5 Discussion of Terminology

Five key concepts feature prominently in this report. One is labour-based methods, as related to labour-intensive, employment-intensive and the less familiar labour-extensive methods. Other concepts are project and programme, development, empowerment and impact. It is desired to provide working definitions in the context of this study in order to form a common basis of understanding of the concepts and their meaning. The idea is not to reinvent the wheel in the way of providing new definitions of the concepts, but to derive working definitions from existing accepted and widely used ones.

1.5.1 Employment - Intensive Methods

Employment-intensive methods include labour-based works and labour-intensive works. In infrastructure development activities, product quality and cost effectiveness are of primary concern. Bental (1999), suggests that projects are

⁶ NDP 2 covered the period 2000/01- 2005/06.

employment - intensive where labour is the dominant resource for carrying out works during implementation, and where the share of the total project cost spent on labour is high (typically 25-60%). McCutcheon (2003) defines employment-intensive construction as the *“economically efficient employment of as great a proportion of labour as is technically feasible to produce as high a standard of construction as demanded by the specification and allowed by the funding available, the result being a significant increase in employment generated per unit of expenditure in comparison with conventional capital-intensive methods, without compromising time, cost and quality”*. Employment-intensive works contribute to poverty alleviation in several ways, the most direct way being through transferring income and by creating useful economic infrastructure. Second round effects include income multipliers generated by the spending of wages, impacts on labour markets and skills transfer to trained and participating workers.

In economics, *labour-intensive* is a phrase used to describe an operation in which proportionately more labour is used than other factors of production. The primary value of labour-intensive technology is its inherent potential for poverty alleviation through employment creation. In his defining arguments, Dereaux (2002) contended that *labour-intensive works* programs maximize short-term employment creation, usually as a response to a crisis or as a self-targeting means of identifying the poor for income transfers. However, World Bank (1974, 1986) and other studies have established that *labour-intensive works* programs focus as much attention to infrastructure creation as to employment creation. Labour-intensive methods attempt to *optimize* the use of labour, meaning that the objective of employment creating is given priority, without compromising efficiency or the quality of work itself

Since the 1970s, “labour intensive” has been the term used in major research and field studies carried out by the World Bank and the ILO. A major problem with the term “labour-intensive” as argued by McCutcheon (1990, 1994) is that decision makers tend to focus upon “picks and shovels” at the expense of seeing the broader context which includes appropriate policy, legislative environment, suitability of projects, quality and efficiency, organisation and training at site and

managerial levels, including that required for proper contractor and sub-contractor development.

Some authorities prefer to use the term “labour-based” as opposed to “labour-intensive”. These contend that labour-intensive implies that work is done entirely by hand whereas labour-based allows the use of equipment where necessary. However, the two terms; *labour-intensive* and *labour-based* have been used almost synonymously by most expert and authors, but with the assumption that the methods used will be cost-effective and the product quality will be fully adequate. In this study the term *labour-intensive* is used in the description of the theoretical framework of labour-intensive works technology, and the description of research and studies done by the World Bank and ILO, since that was the term used in those studies. The term *labour-based* is used more prominently in this study in relation to the LBW programme in Namibia because it was the term mostly used there. Nevertheless, the terms *labour-intensive* and *labour-based*, where used purposely or incidentally in this report, will have the same meaning in the context of this paragraph.

The discussion above and definitions are intended to distinguish between; (i) the temporary use of employment-intensive methods to provide short-term employment or income generation in times of crisis and (ii) the creation of systems, procedures and capacities for sustainable employment generation, through local resource based approaches in the context of long term development strategies. Activities that fit in category (i) are termed *labour-extensive* since they make an extensive use of labour, without necessarily using it very efficiently⁷. Labour extensive is also defined as the use of large numbers of people on relatively unplanned emergency or relief projects to construct products of ill-defined quality and value (McCutcheon and Marshal, 1998). Typical labour-extensive works are emergency relief efforts. In contrast, category (ii) activities have longer-term goals of better use of local resources, creation of productive assets and sustainable employment. These are implemented in a stable, focused institutional environment.

⁷ The term labour-extensive could be compared with the term land-extensive used by agronomists to describe agricultural systems using large amounts of land without maximizing productivity per unit of land.

1.5.2 Project and Programme

Various scholars have defined a project in many different ways. An important feature in all definitions is the retention of the key features of a project. In sum a project is a non-routine, non-repetitive, once-off undertaking, which is carried out within a specific time frame, with limited funding and performance goals. A project consists of a series of activities and tasks that defines it:

- It has a specific objective to be completed within certain specifications.
- Has a defined start and end dates.
- Has funding limits
- Consume human and non-human resources.
- Projects are multifunctional. (Kerzner, 2000).

According to other scholars a project is “... an activity on which money will be spent in expectation of returns (not necessarily financial) and which logically seems to lend itself to planning, financing and implementation as a unit” (Erskine, 1985, cited in Thwala, 2001). It is a specific activity with a specific starting point and a specific ending point intended to accomplish specific objectives. The definition by Erskine (ibid) makes it clear that a project has phases that it must go through, that is, planning, development (concept), implementation (execution) and finishing. A project normally has a clearly understood area of geographic concentration, and is of a short-term character.

On the other hand, a programme is a set of coordinated projects whose purpose is to achieve programme objectives. A programme definition was pioneered by NASA (Kerzner, 2003) as “a relative series of undertakings that continue over a period of time (normally years), and that are designed to accomplish a broad, scientific or technical goal, in a long term plan”. So a program is an integrated, time phased tasks or projects necessary to accomplish a particular purpose. A project is therefore within a program as an undertaking that has a scheduled beginning and end, and that normally involves some primary purpose. While a project cycle includes attention to the appraisal, planning and design phases, it does not

consider operation, maintenance that is done in life cycle costing of a programme. McCutcheon (1994(2)) differentiates between a “project” and a “programme” by pointing out that a “project” comprises short-term, once off individual activities, while on the other hand a “programme’ is a long-term undertaking which is properly planned, co-ordinated, well conceived with a learning curve, training and overheads. In short, it is a group of projects managed in a co-ordinated way to obtain benefits not available from managing them individually. Projects can be built by contractors but operation and maintenance requires an institution building component, with particular emphasis on training of personnel.

1.5.3 Development

Development can be defined as “the creation of a new stage in a changing environment” (Oxford English Dictionary, 8th Edition, 2002). In relation to the existing efforts in many countries, it is a process of improving the quality of human lives. It is therefore conceived as a multidimensional process involving major changes in social structures, popular attitudes, and national institutions, as well as the acceleration of economic growth, the reduction of inequality, and the eradication of poverty (Todaro, 1994 cited in Thwala (2001)). Development encompasses growth and indicates magnitude, a quantitative increase.

Development tends to be defined in economic terms, neglecting the social, physical and political aspects (Thwala, 2001). However, development is both a physical reality and a state of mind in which society has, through some combination of social, economical, and institutional processes, secured the means for obtaining a better life (whatever the specific components of this better life). According to Todaro (1994), development in all societies must have at least the following objectives:

1. Increase the availability and widen the distribution of basic life-sustaining goods such as food, shelter, health, and protection.
2. Raise standards of living including, in addition to higher incomes, the provision of more jobs, better education, and greater attention to cultural and

humanistic values, all of which will serve not only to enhance material well-being but also to generate greater individual and national self-esteem.

3. Expand the range of economic and social choices available to individuals and nations by freeing them from servitude and dependence not only in relation to other people and nation-states but also to the forces of ignorance and human misery (ibid).

According to the World Bank (1991) cited in DBSA (1998) “the challenge of development is an improvement in the quality of life’. This is significant because for many years the World Bank had propagated economic growth as the measure and aim of development. While emphasising that a better quality of life requires growth in income, the World Bank (ibid) also states that development encompasses, as ends in themselves, better education, higher standards of health and nutrition, less poverty, a cleaner environment, more equality of opportunity, greater individual freedom and a richer cultural life. Development also leads to individual freedom, independence, self-esteem, and freedom from ignorance, human misery and servitude.

1.5.4 Empowerment

Empowerment is a social science concept that centres on power. It is a social process which occurs in relationship to others. The empowerment concept examines whether power can change or cannot change. If power can change, then empowerment is possible, and vice versa (Kashea, 2002).

Empowerment is therefore regarded as a multi-dimensional social process that can help people control their own lives, their communities and their society by acting on those issues they regard important (Page, 1999 cited in Kashea, 2002). It aims to give people the capacity to manage their environment and life, identify their needs and participate in solving their problems. In short, empowerment of communities encourages people or beneficiaries to participate in their development. This can be in a form of educational opportunities, knowledge and skills to increase their ability

to determine their own future and in order to participate in activities that affect their lives.

The development of small labour-based contractors in Namibia is often described as an initiative for empowerment of entrepreneurs and community members from the previously disadvantaged group. It involves a process of providing opportunities, resources and support for the targeted people to get themselves involved (Kashea, 2002).

The Namibian Chamber of Commerce, cited in Kashea, 2002, describes empowerment in relation to;

Power over:	power over others and matters requiring force or coercion to maintain.
Power to:	power to make decisions and decision making possibilities.
Power with:	collective power gained through working as a group.
Power within:	individual power to believe in oneself and in ones abilities.

Thwala (2001) defined empowerment as a process of personal change in which individuals take action on their own behalf, and then redefine their understanding of the world in which they live. He summarized empowerment as:

- Organised efforts to increase control over resources;
- Concept created by external forces;
- Framework on how community participation should occur;
- Form the basis of community struggle.

On the other hand Friedmann, 1992, cited in Thwala 2001, describes empowerment as: “social and political empowerment whose long term objective is to rebalance the structure of power in society making state action more accountable, strengthening the powers of civil society in the management of its own affairs, and making corporate business more socially responsible”. He

identified empowerment on the basis of access to the following three levels of power to which households have different amounts of access:

- (i) Social power, that which is concerned with access to the basis for household production, such as information, knowledge and skills, participation in social organisations and financial resources. Increased social power may be understood by increased access to a household's base of production;
- (ii) Political power that which relates to the amount of access which individual household members have to the decision-making process. This involves the power to participate in social movements, collective action and political associations; and
- (iii) Psychological power that refers to the individual's sense of potency and the confidence to deal with different aspects of life.

In order to empower households, Friedmann (ibid) states that households and individuals must develop greater access to power in the above-mentioned three spheres. This will occur through involvement in relevant social and political actions. At community level, empowerment is achieved in community-based projects in which the community is involved in the commercial, managerial and administrative aspects so as to maximize the amount of funds retained within the community and the transfer of skills to the community.

1.5.5 Impact

The OECD (1999) defines impact as a "term indicating whether the project had an effect on its surroundings in terms of economic, technical, socio-cultural, institutional and environmental factors. Impact evaluation includes the identification and quantification of benefits, their sustainability, replicability, and an examination of the external factors and causalities. The evaluation should therefore examine the intended and the unintended results of the project and also explain the positive and negative impacts of external factors such as changes in basic policy environment,

economic and financial conditions. Impact analysis is thus primarily concerned with the testing of hypothesis and assumptions of the projects concerned.

In addition to the assessment of direct employment creation and income transfers, assessing the total impact of a labour-based works programme requires the calculating of three secondary effects; multiplier effects from the spending of wages, incremental income earned by workers from using new assets created or skills transferred by the programme, and the opportunity cost of participants in the programme.

Impact evaluation is conducted sometimes after the project has been completed, usually 5-10 years. The reason is that much of the lasting impacts will not be visible at completion, and such impacts as detected at the time of completion may be transitory.

1.6 Conclusion

This chapter has introduced the labour-based technology concept and the objectives of this study. Work, employment, unemployment, underemployment, employment creation, poverty and the politics of employment creation have been discussed, both in general terms, and in the Namibian perspective.

It is concluded that the poverty and unemployment levels in Namibia are high and growing. The often quoted per capita GDP is misleading and disguises the extremes of poverty and wealth distribution among Namibians. The colonial legacy left the country with very low levels of skills, and a huge infrastructure backlog particularly in the populated underdeveloped areas. The economy is capital-intensive, is dependent on primary products and is not able to generate sufficient job opportunities for the jobless. A good portion of the jobless is unemployable in formal positions. The main challenges to the post-independence GON are still the creation of employment, reduction of high levels of poverty and infrastructure development, particularly in the rural and previously neglected areas.

Reforms in policies and expenditure modes and priorities are necessary to redress the situation. Engagement of the private sector, both formal and informal is necessary. Development and support of small and micro enterprises in all sectors is imperative. The prevailing low level of skills requires the country to adopt strategies providing economic growth and employment equity. The labour-based works technology choice is an appropriate strategy and rational for Namibia as it will address the maladies of unemployment, poverty and infrastructure provision, all at the same time.

The meaning of some key words and concepts which feature prominently in this report has also been explained.

The LBW technology has been introduced and developed in Namibia in the last decade. It was further articulated in NDP1 with seemingly ambitious goals. The following chapters take stock of the process and achievements.

1.7 Comparative Evaluation of Development of LBW Programme in Namibia

1.7.1 Problem Statement

Creation of employment and poverty eradication are two of the four broad goals of the National Development Plan 1 and II (NDP I and NDP II) of the Government of Namibia. One of the programs implemented during the period of NDP 1 is the development of the Labour-based Works Programme, LBWP. The main objective of the LBWP was two-fold: the creation of employment opportunities in the populated rural areas and the development of the much needed road infrastructure in the previously neglected and inaccessible areas of the country. The LBWP in Namibia was mainly implemented within the road sector.

The LBWP was implemented in Namibia against a background of known successes and failures in other countries that have implemented or attempted to implement similar programs. This is the first comprehensive study to be undertaken in Namibia that examines to what extent the LBWP was successful in relation to its

objectives, in comparison with other successful programs elsewhere, and in relation to existing guidelines for implementation of similar programmes.

In order to evaluate the degree of success of the Namibian programme, an attempt has been made to provide answers to four main questions that were formulated at the inception of the study.

- (i) How the LBWP in Namibia was conceived and what was the motivation for the initiative? How was the initiative incorporated into policy?
- (ii) How was the implementation of LBWP in Namibia managed, to what extent it was successful and what were the critical success or failure factors?
- (iii) How does the Namibia process compare with the existing scholarship on the subject and known success stories?
- (iv) Are the labour-based works technology philosophy and practices sustainable in Namibia, and what are the sustainability factors?

1.7.2 Aim of the Study

The aim of the study was to perform a comparative evaluation of the development of labour-based works programme in Namibia.

Specifically, the study reviewed the objectives of the programme, the institutional set-up for programme implementation, stakeholder's involvement, the programme development process, implemented projects, progress achieved, and supporting policies for the development of labour-based works programme in Namibia.

In relation to the programme and projects implemented in the process, the study;

- i) described, discussed, analysed and documented programme projects;
- ii) examined the original objectives of each project;

- iii) analysed the extent to which each project succeeded or failed in relation to its objectives and the whole programme;
- iv) compared the programme performance with both theory and good practice guidelines;
- v) evaluated the programme success/failure against international experience;
- vi) made recommendations and proposals that should be taken into consideration to ensure success of similar programmes.

1.7.3 Research Methodology.

1.7.3.1 Qualitative Research Approach

This is a comparative evaluation study. Per definition, an evaluation study is a process of applying scientific procedures to accumulate reliable and valid evidence on the manner and extent to which specified activities produce particular effects or outcomes. Attention therefore had to be paid to the manner and extent to which specified activities produced results. Additionally, in evaluation research, the programme under evaluation should not only be measured against their intended goals, but also against latent goals i.e. unintended consequences and other anticipated effects.

Qualitative research methods were used to describe and analyse the implementation of LBWP in Namibia. Primary data was obtained by way of discussions with various role players. Appropriate research questions were directed to the role players in the MWTC, DOT, consultants and others. Some supervisors and contractors in the completed and ongoing projects were also briefly interviewed. Information and data was also collected through reviews of ongoing labour-based works contracts and progress reports of completed construction projects.

Existing textual and secondary data was also be used for analysis. This was obtained mainly from the MWTC, NPC and RA in Namibia, and from ILO offices in Harare. Although secondary data, comprising mainly work done by

others for their own purposes on the subject, is easier and less costly to find than primary data; its main limitation is that the information obtained may not meet the specific needs of the study.

The information needed to establish the theoretical basis of labour-based works technology was obtained from lectures at the School of Civil Engineering at the University of Wits, books, articles, reports, and research papers, journals etc collected at the Research Centre for Employment Creation in Construction (WORK) at the University of Wits and from the ILO offices in Harare. Additional information was obtained from the World Bank, ILO and Government websites.

1.7.3.2 Literature Survey

Extensive study of existing literature on labour-based technology and developmental programmes was carried out. The Research Centre for Employment Creation in Construction (WORK) at the University of Witwatersrand provides a sufficient collection of international literature on the subject. Other sources of literature are the Development Bank of South Africa (DBSA), the Multidisciplinary Research Centre of the University of Namibia, the World Bank, ILO and Government websites.

1.7.3.3 Interviews

Discussion and interviews was conducted with the following people;

- i) Experts of labour-based works in Namibia who were involved in the programme.
- ii) Engineers and officials of the Ministry of Works, Transport and Communication and the Roads Authority in Namibia.
- iii) Officials and experts in the National Planning Commission in Namibia.
- iv) Consultants who were involved in the programme in Namibia
- v) Contractors who were developed and/or involved in the programme.

- vi) Supervisors who were trained during the programme.
- vii) Contractors involved in other labour-based construction projects.
- viii) Independent development experts in Namibia
- ix) Community leaders in project areas.

1.7.3.4 Site Visits

Site visits were carried out to two LBW project roads which were under construction during the study period, and also to some other roads which were constructed using LBW methods in the period 1997-2003 in northern Namibia. The aim of the site visits was to gain first hand information on constructed roads, conduct informal interviews and discussions with people and community leaders along the road corridor, available construction workers, supervisors and small contractors. Site visits to the ongoing construction projects was also intended to assess the site and work organization, resources utilization, work methods, supervision and management.

1.7.4. Structure of the Report

Chapter 1

This chapter provides the background to the study, the socio-economic information on Namibia and sets out the methodology adopted for the study. The problem statement, unemployment and poverty issues, and related national strategies are also briefly discussed.

Chapter 2

In this chapter, the literature review and evaluation theory applicable to this study are presented and discussed.

Chapter 3

This chapter provides an overview of the international experience with regard to the development of labour-based works programmes. Similar programmes undertaken in Kenya, Ghana, Botswana and Lesotho are briefly reviewed.

Chapter 4

This chapter describes the planning for the labour-based pilot projects (LBPP). The objectives of the pilot projects are highlighted, planning processes are analysed and important planning aspects are discussed.

Chapter 5

This chapter discusses the implementation of Phase 1 and 2 of the pilot projects, using labour-based works principles and methods in Namibia. The technical aspects, administration and management, labour issues, productivity, costs and performance of contractors etc. are systematically reviewed. Achievements and lessons learned are summarized, and problems experienced are investigated and discussed.

Chapter 6

This Chapter provides a brief review of the process of development of the LBW policy in Namibia. Policy elements that had a direct bearing on the LBW programme development and operations on the ground are discussed.

Chapter 7

It is considered necessary to cover separately the process of development of small contractors in Namibia, which was part of the LBW programme implementation, due to the importance this subject bears in the programme and its overall effect in the construction sector. This is a subject of this chapter.

Chapter 8

In this Chapter a review and analysis of road construction projects executed using labour-based methods after the training and piloting phase is undertaken. Basic features of the projects are described, and implementation aspects and project parameters are documented. Achievements, problems and lessons learned are highlighted and discussed.

Chapter 9

In this chapter, a comparative evaluation of the LBW programme in Namibia is undertaken, with a view of establishing the degree of its success or failure. Comparison is made with successful programmes elsewhere and established guidelines for good practice.

Chapter 10

The study is concluded in this chapter. A summary of findings and conclusions on various aspects of the study are made. The case of success or failure of the LBW programme in Namibia is synthesized. Important lessons are drawn. Recommendations are formulated that needs to be taken into consideration to ensure success of similar programmes in Namibia and elsewhere.