

# ADDRESSING THE PLIGHT OF POOR HOUSEHOLDS BY ZERO-RATING VALUE ADDED TAX ON BASIC COMMODITIES IN NAMIBIA

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# **ADDRESSING THE PLIGHT OF POOR HOUSEHOLDS BY ZERO-RATING VALUE ADDED TAX ON BASIC COMMODITIES IN NAMIBIA**

Ojijo Odhiambo\* and John E. Odada\*\*

## **ABSTRACT**

Difficult economic times began for Namibia in 2008 as real economic growth suddenly dropped to 4.3 per cent from the 5.5 per cent recorded in 2007. There were also wide fluctuations in the general level of prices of goods and services, including food commodities. Cost-of-living inflation rose to a high of 10.4 per cent from a low of 2.3 per cent in 2003 and unemployment rates were high, well in excess of 50 per cent; thus many households faced an increasing cost of living without reliable sources of income. The unfavourable circumstances of these households were exacerbated by inauspicious climatic and soil conditions, which greatly limit the role of subsistence farming as a viable source of livelihood in many parts of the country. In order to mitigate the impact of rising food prices and address food security concerns, the government decided to increase from eight to fourteen the number of basic commodities (foodstuffs and services) that had zero-rated value added tax (VAT) in 2000, as a means of improving access to basic foodstuffs and services needed for daily survival, particularly for the poor. This paper offers an *ex-ante* analysis of how the zero-rating VAT on these basic commodities affected the well-being of poor households. We use data from the 1993/94 and 2003/04 National Household Income and Expenditure Survey and a mini survey conducted in 2009 to determine the consumption patterns of these commodities. The VAT burden lifted is determined and disaggregated by income decile. The analysis reveals that, contrary to expectations, rich households are more likely to benefit from VAT zero-rating than poor households. The findings of the study make it plausible to conclude that the zero-rating of VAT on basic commodities in 2000 and 2008 did not adequately target the commodities that the poor consume in large quantities and that they acquire in formal markets; hence the measure is unlikely to bring additional benefits to the poor. The government might have to reconsider the choice of VAT zero-rated commodities and include those that are consumed mostly by the poor and acquired in formal markets, while simultaneously strengthening and expanding other schemes such as social transfers which would benefit the poor disproportionately.

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## 1 INTRODUCTION

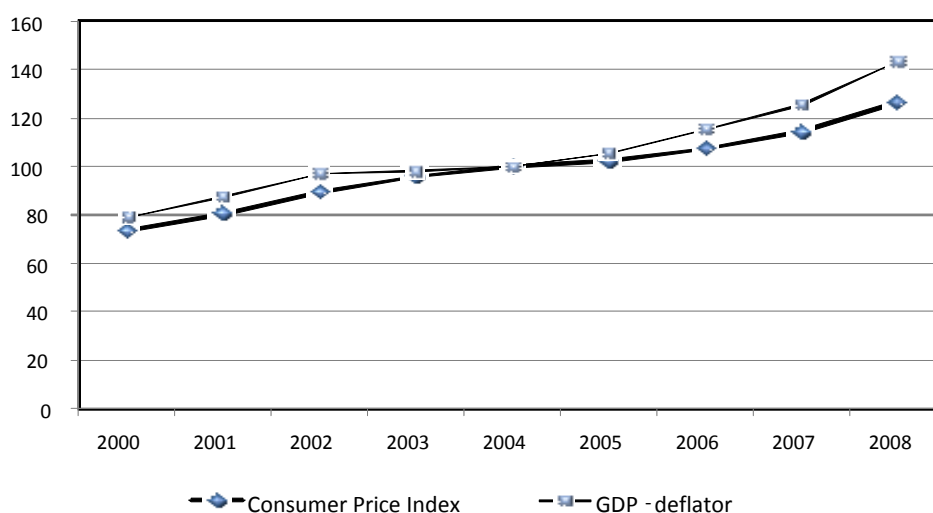
### 1.1 THE COUNTRY CONTEXT

Although Namibia is classified as an upper middle-income country and has an estimated annual gross national income (GNI) per capita of US\$4,210, poverty is still a major socioeconomic problem. According to a recent assessment of poverty by the Central Bureau of Statistics (CBS) of the National Planning Commission (GRN, 2008a), 27.6 per cent of the country's households are poor and 13.8 per cent are severely poor. An important contributor to the relatively high incidence of poverty is inequality in the distribution of income. At independence in 1990, Namibia's Gini coefficient stood at 0.7, one of the worst figures in the world. The current government's efforts to reduce inequality, which was perpetuated by the colonial regime, have succeeded in reducing the Gini coefficient, albeit marginally, to 0.63, which still represents a very high level of income inequality.

The period 2008–2009 was particularly difficult for Namibia, as for many other developing and developed countries. This was largely because of the global economic crisis, which caused a significant recession in many developed countries such as the United States and the member states of the European Union (EU), important destinations for Namibian exports. Namibia's impressive average real growth rate of 4.7 per cent in the period 1990–2006, which improved to 5.5 per cent in 2007, suddenly dropped to 3.3 per cent in 2008 before contracting by 0.8 per cent in 2009 (GRN, 2009 and 2010). In addition to the deceleration of output growth in 2008 and economic contraction in 2009, the entire period 2000–2008 was characterised by wide fluctuations in the general level of prices of goods and services as measured by the consumer price index (CPI) and GDP-deflator, as shown in Figure 1.<sup>1</sup>

FIGURE 1

#### Trends in CPI and GDP-Deflator, 2001–2008

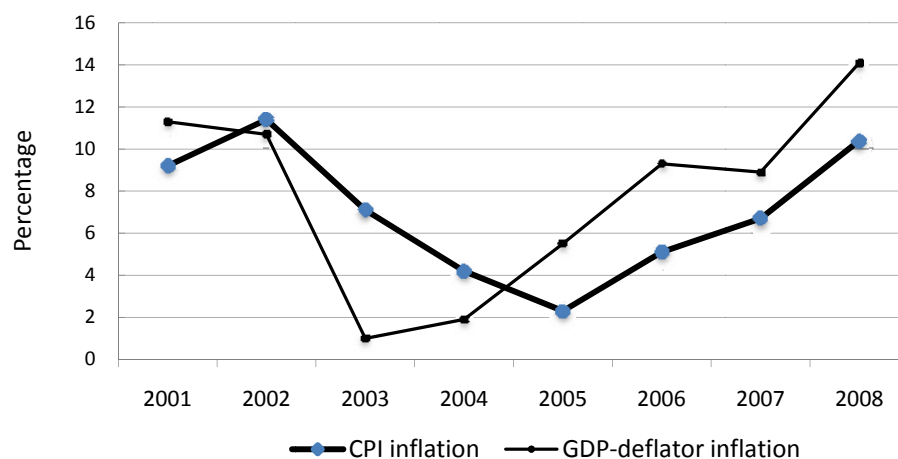


Source: GRN (2009): *National Accounts 2000–2008*, Central Bureau of Statistics, National Planning Commission.

According to estimates by the CBS, cost-of-living inflation rose from 9.2 per cent in 2001 to 11.4 per cent in 2002 before declining to 2.3 per cent in 2005. From 2006, this rate of inflation was increasing again, reaching a high of 10.4 per cent in 2008. GDP-deflator inflation

followed a slightly different trend. Starting from 11.3 per cent in 2001, it declined to 1.0 per cent in 2003 before increasing steadily to 14.1 per cent in 2008, as shown in Figure 2 (GRN, 2009b).

FIGURE 2

**CPI Inflation and GDP-Deflator Inflation, 2001–2008**

Source: GRN (2009): *National Accounts 2000–2008*, Central Bureau of Statistics, National Planning Commission.

The effects of this significant increase in the cost of living on the Namibian people, especially the poor, were further exacerbated by high unemployment in the same period. In 2008, of an estimated total labour force of 678,680, the unemployment rate stood at 51.2 per cent (when the broad measure of unemployment was applied), and at 29.4 per cent (when the strict measure of unemployment was applied),<sup>2</sup> according to data from the 2008 Labour Force Survey. Importantly, unemployment, when considered within the context of both broad and strict definitions, had a distinct feminine face. The percentage of women unemployed was 58.4 per cent and 31.4 per cent under broad and strict measures, respectively, while the corresponding figures for men were 43.5 per cent and 27.3 per cent. Then, as now, there was a high dependence ratio, since the few people engaged in gainful employment had to support a large number of dependants. And the circumstances of poor and vulnerable households were exacerbated by inauspicious climatic and soil conditions, which greatly limit the role of small-scale subsistence agriculture (especially conventional rain-fed crop farming) as a viable alternative source of livelihood in many parts of the country.

## 1.2 SOME EFFORTS BY THE GOVERNMENT TO ADDRESS THE PLIGHT OF POOR HOUSEHOLDS

The plight of poor households experiencing this triangle of challenges called for public policy intervention because the poor were unable by themselves to attempt to resolve or adjust adequately to these difficulties. In an effort to address the problems facing poor households, in 2008 the government decided to increase from eight to fourteen the number of VAT zero-rated basic commodities deemed essential for their survival.<sup>3</sup>

The first round of zero-rating was at the inception of the VAT system in 2000. The zero-rated commodities included mahangu (pearl millet flour), mahangu meal, maize, maize meal, water, electricity, refuse removal and sewerage disposal. The second round of zero-rating took

place in 2008 and included fresh and dried beans, cooking oil, bread, bread and cake flour, and processed animal fat. In principle, zero-rating VAT on basic commodities consumed by poor households should reduce poverty and inequality by lessening the regressive effects of the tax system. This is because poor households spend larger proportions of their incomes on consumer goods and, consequently, a significant proportion of their incomes on VAT.

This paper addresses two interrelated issues arising from the government's decision to zero-rate VAT on the commodities mentioned above. First, it analyses the extent to which zero-rating VAT on these commodities is likely to reduce the VAT burden on households, by income deciles, with a view to establishing whether zero-rating VAT on these commodities did indeed target poor households and what they consume most, and/or benefit those households disproportionately. Second, the paper uses data and qualitative information from a household survey conducted in five of the country's thirteen regions in October 2009 to shed light on some socioeconomic issues relating to the commodities on which VAT was zero-rated in 2008.

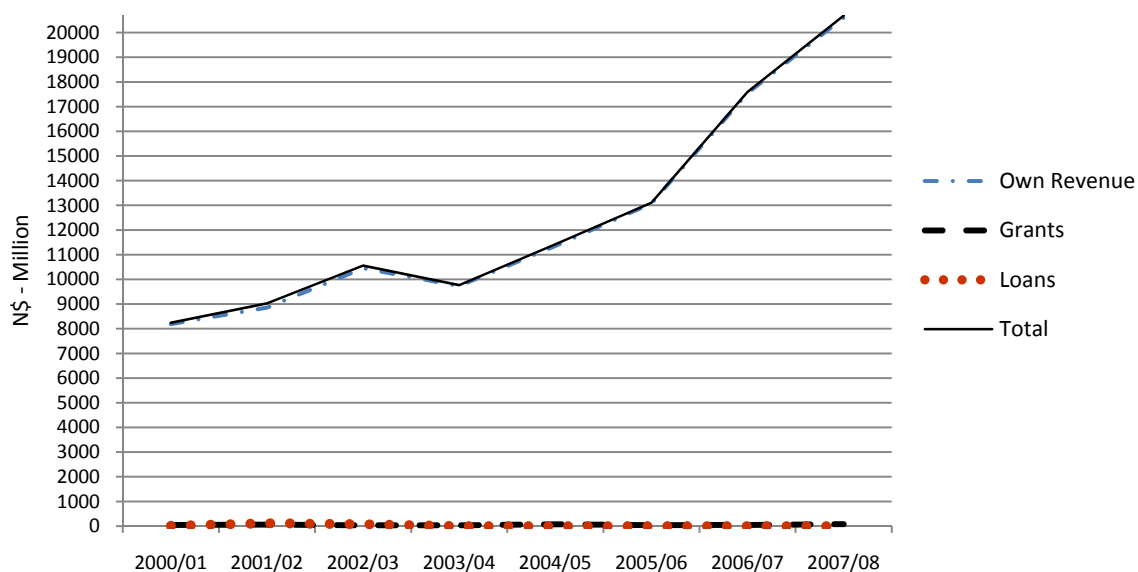
The rest of the paper is structured as follows: Section 2 looks at the place of VAT in Namibia's tax system; Section 3 analyses the effects of zero-rating on the well-being of households; and Section 4 presents some conclusions and recommendations.

## 2 THE PLACE OF VAT IN NAMIBIA'S TAX SYSTEM

Unlike many sub-Saharan African countries, Namibia has relied almost exclusively on its own sources of revenue to finance its public development agenda. Over the fiscal periods 2000/01–2007/08, revenue from the government's own sources accounted for an average of 99.4 per cent of total revenue each year; grants and foreign loans accounted for only 0.4 and 0.2 per cent, respectively, on average (see Figure 3).

FIGURE 3

### Composition and Sources of Government Revenue 2000/01–2007/08



Source: GRN, Revenue and Expenditure Data, 2000/01–2007/08, Ministry of Finance, 2009.

Table 1 shows that taxes accounted for the largest proportion (91.6 per cent on average) of government revenue; non-tax sources contributed an average of only 8.4 per cent of total government revenue over the past decade.

TABLE 1

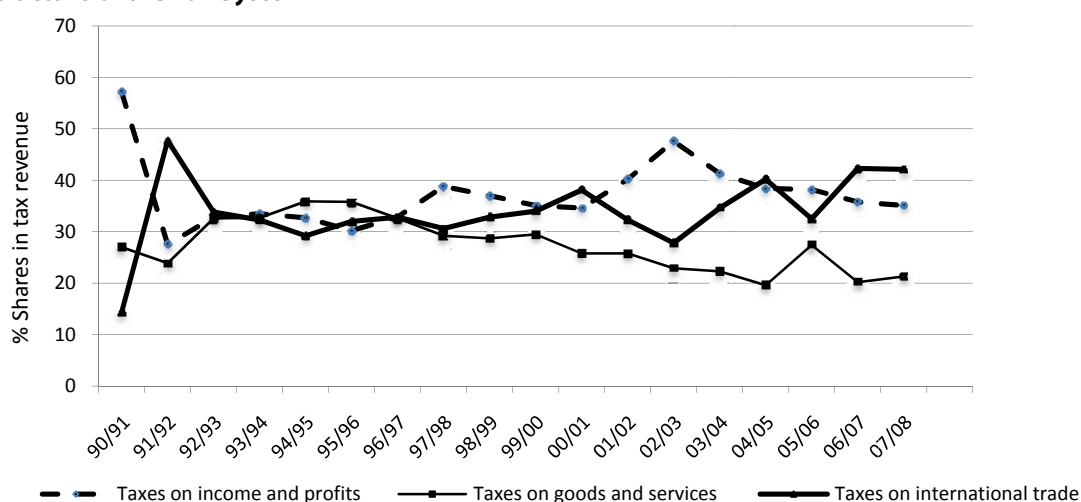
**Government Revenue and Expenditure, 2000/01–2007/08 (N\$ million)**

	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2008/09	Average
Tax revenue	7550	8166	9330	8763	10467	11963	15843	19183	11408.13 (91.6%)
Non-tax revenue	617	666	1104	957	849	1073	4683	1411	1045 (8.4%)
Total revenue	8167	8832	10434	9720	11316	13036	17526	20594	12453.1 (100%)
Total expenditure	8697	10361	11416	12241	12889	13608	15316	17737	12783
Budget balance	-530	-1529	-982	-2521	-1573	-572	2210	2857	-330

Source: GRN, Revenue and Expenditure Data, 2000/01–2007/08, Ministry of Finance.

Namibia's tax system has five broad categories: taxes on income and profit; property taxes; domestic taxes on goods and services; taxes on international trade and transactions; and other taxes. As regards contribution to tax revenue, however, the dominant taxes are taxes on income and profit, which over the fiscal periods 1990/91–2007/08 contributed an average of 37.2 per cent of total revenue per fiscal year, followed by taxes on international trade (33.9 per cent) and domestic taxes on goods and services (27.4 per cent). Together, these three tax categories contributed an average of 98.5 per cent of total annual tax revenue over the fiscal periods 1990/91–2007/08. The remaining 1.5 per cent came from property taxes and other taxes, which include stamp duty and fees (see Figure 4).

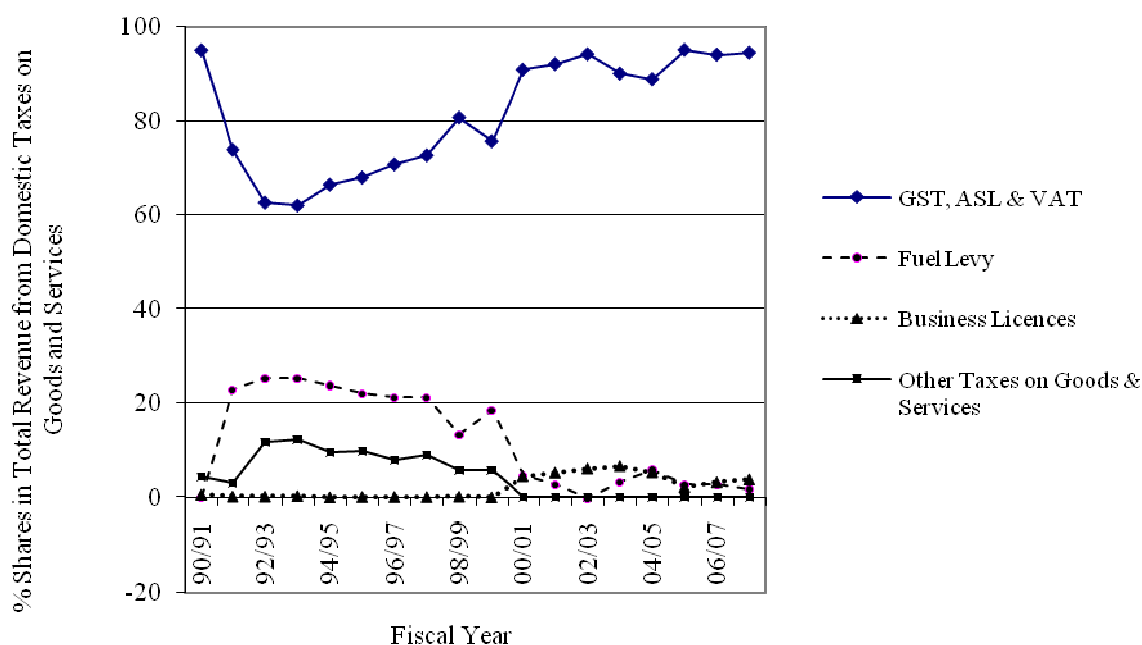
FIGURE 4

**Structure of the Tax System**

Source: GRN: Revenue and Expenditure Data, Ministry of Finance, 2009.

Domestic taxes on goods and services, however, are dominated by indirect (ad valorem) taxes levied on goods and services. From the fiscal periods 1990/91 to 2000/01, these indirect taxes consisted of general sales tax (GST) and additional sales levy (ASL). But from fiscal year 2001/02 these two taxes were replaced by VAT, although revenue data from the Ministry of Finance show ASL figures up to 2002/03 and GST figures up to 2007/08, mainly because of lags in their collection and, especially, delays in remittance to the government. These three indirect taxes accounted for an average of 81.5 per cent of annual revenue from domestic taxes on goods and services over the fiscal periods 1990/91–2007/08, followed by the levy on fuel (12.0 per cent), other taxes (4.2 per cent) and business licences (2.3 per cent) (see Figure 5). Other taxes include liquor licences, fishing boats and factory licences, hunting and fishing licences, prospecting licences and claims, fishing quota levies and gambling licences.

FIGURE 5

**Structure of Domestic Taxes on Goods and Services**

Source: GRN: Revenue and Expenditure Data, Ministry of Finance, 2009.

VAT is a consumption-based tax collected at each stage of the production and distribution chain, and thus is very broad-based. But different viewpoints have been expressed on VAT. Some studies argue that although value added taxes are more efficient in generating government revenue, they generally distort consumer behaviour less than other forms of ad valorem taxes such as sales tax and additional sales levy (see, for example, Alderman and Carlo del Ninno, 1999). Other economists argue that only an ideal VAT regime imposes the lowest level of distortions (see, for example, Tait, 1998; and Ebrill et al., 2001). These economists look at an ideal VAT regime as one with a single standard rate on all domestic sales, a zero rate on exports and no exemptions. Under such a VAT regime, VAT essentially becomes a consumption tax: producers pay VAT on their output, but fully claim back the VAT they paid on their intermediate inputs. The effective VAT tax rate on producers thus becomes zero, while the effective tax rate on consumers becomes the legislated standard VAT rate.



With respect to equity, a single-rate VAT system is, at best, “distributionally” neutral because it does not discriminate between rich and poor consumers. Because of this, VAT systems tend to be introduced in a way that offers exemptions and/or zero-rating of the tax on identified basic commodities that are consumed mostly by the poor, so as to mitigate the possible negative impacts of the tax on poor/low-income consumers. This is to say, VAT systems tend to reflect governments’ fiscal objectives as well as their concern about the well-being of poor households.

An important conceptual question, however, arises from the foregoing as to the real losers and gainers from tax exemption and/or zero-rating. Producers/distributors and consumers are gainers in zero-rating, because the effective VAT rate on each of them is zero. Zero-rating creates a win-win arrangement for them. When VAT is exempted, however, consumers benefit because the effective VAT rate on them is zero, while producers/distributors are losers because they have to pay VAT on their intermediate inputs. But the government is the ultimate loser in both cases, especially in the immediate to short run, because it has to forego and/or lose revenue.

On the demand side, zero-rating provides an incentive to consumers to consume more, while on the supply side zero-rating acts as an incentive to producers to supply more of the commodities on which VAT is zero-rated. VAT exemption, however, only provides an incentive for increased consumption, which is likely to create a mismatch between demand and supply, and lead to price increases that could easily erode the benefits accorded to consumers.

As Alderman and Carlo del Ninno (1999) observe, a single-rate VAT system is both equitable and efficient. In this case, it is equitable because of its distributional neutrality and efficient because it is easy to administer. VAT systems, therefore, are often introduced in a way that varies rates or offers exemptions to reduce the burden of the tax on low-income households. The systems often tend to reflect governments’ distributional and fiscal objectives. An alternative view is that VAT systems should be based only on efficiency criteria, and should leave equity concerns to be addressed by targeted income transfers and other similar measures.

In Ethiopia, VAT replaced sales tax in 2003. It was designed to tax services in addition to production; grant zero-rating to exports; and give exemptions to fewer basic products than was the case under the sales tax system. The VAT system was expected to increase revenue through its broader base; improve efficiency; promote exports; and foster economic growth (Munoz and Cho, 2003). These authors observe, however, that the broadening of the tax base, the increase in the tax rate that accompanied the change from sales tax to VAT, and the choice of exemptions led to differential effects on the incomes and expenditures of different groups of the Ethiopian population. The authors also note that in an important deviation from the VAT logic, most countries that have adopted the VAT system tend to exempt some items or activities. In such cases, output is not taxed and VAT paid on inputs is not recoverable. They argue that exemptions complicate the administration of the VAT system, erode the tax base and distort input-choice decisions. The commodities exempted from VAT in Ethiopia include sales of used dwellings, financial services, medical and educational services, electricity, kerosene, water, and transport services. The non-exempt commodities are taxed at a uniform VAT rate of 15 per cent (Munoz and Cho, 2003).

The introduction of VAT in South Africa in 1991 appears to have taken account of these two viewpoints. To reduce the burden of the tax on the poor, a safety net scheme in the form of the

National Nutrition and Social Development Programme was also introduced in 1991 to distribute R400 million each year to community-based projects (Alderman and Carlo del Ninno, 1999). In addition to this programme, maize and brown bread were exempted from VAT shortly after the tax system was introduced, and by mid-1993, a total of 19 food commodities were exempted from VAT (Alderman and Carlo del Nino, 1999). While it is possible that VAT exemptions on non-food commodities may also serve equity objectives, South Africa appears to have concentrated on exemptions on food. These exemptions, together with the nutrition programme, indicate a specific nutritional consideration by the South African government in the design of the VAT system. The South African VAT system was introduced with a single statutory rate of 10 per cent and, as Kearney and van Heerden (2004) observe, the economic debate on VAT focused on the distributional aspects of the tax system. Given that VAT is an indirect tax, it is bound to be regressive unless it is accompanied by specific measures, such as zero-rating the tax on essential commodities. The economic debate in South Africa thus led to zero-rating the tax on brown bread, maize meal, samp, mealie, rice, dried mealies, dried beans, lentils, pilchards, milk powder, milk, unprocessed vegetables, fruits, vegetable oil and eggs, among others. The second round of zero-rating also included paraffin in 2001 (Kearney and van Heerden, 2004).

As mentioned earlier, the VAT system was first introduced in Namibia in November 2000 to replace GST and ASL, when provision was made for three VAT rates: 15 per cent, 30 per cent and 0 per cent. But this was changed to a uniform rate of 15 per cent in October 2002. The introduction of VAT in Namibia in 2000 seem to have taken these viewpoints—efficiency and equity—into consideration, because from its inception the VAT regime made provision for zero-rating of the tax on a number of basic commodities, as explained in sub-section 1.2. Namibia's VAT system thus conforms to the general stance of the VAT systems of other countries, differing only slightly as regards the choice between exemption and zero-rating, and the choice of the commodities to zero-rate.

### **3 EFFECTS OF VAT ZERO-RATING ON THE WELL-BEING OF POOR HOUSEHOLDS**

#### **3.1 ANALYTICAL FRAMEWORK**

This study has used a simple analytical framework within which the effects VAT zero-rating on the commodities that were zero-rated in 2000 and 2008 are quantified. In this framework, National Household Income and Expenditure Survey (NHIES, 1993/94 and 2003/04) monthly household expenditure data were organised by income deciles from the poorest to the richest. The average monthly household expenditure data were then annualised, and then multiplied by the total number of households in each income decile in order to obtain the total annual expenditure on the commodities before they were zero-rated. The standard VAT rate of 15 per cent was then applied to the annual expenditure data to obtain the amount of VAT that each income decile was paying each year on these commodities before they were zero-rated (in 2008), which constitutes revenue loss, and what each income decile would have paid had the commodities not been zero-rated (in 2000), which constitutes foregone revenue. This gives the total potential annual tax relief to each household group arising from the zero-rating initiative. The number of households in the country was obtained from the 2001 Population Census Report (GRN, 2003).

Since the primary focus of the study was to assess the effects of the VAT zero-rating policy on the affordability of the basic commodities to poor households, a household survey targeting individual households was also conducted. The sample design used for the survey was a stratified two-stage cluster sampling, wherein the first-stage unit of selection consisted of the clusters designated as primary sampling units (PSUs) and the second-stage unit of selection comprised the households within the selected PSUs. A total of 1,200 households were interviewed in five representative regions of Hardap, Khomas, Kunene, Kavango and Oshana.

### 3.2 TAX RELIEF BENEFITS BY INCOME GROUPS

On the basis of the assumptions that all the commodities consumed by the households are sourced from the markets, that no households consume their own production and that consumption levels and patterns remained the same as those observed in 1993/94 and 2003/04, the first step in determining the effects of VAT zero rating on households was to calculate the amount of money that individual households, per decile groups, were spending before the policy came into effect; this is the amount of potential savings that households would make as a result of this policy initiative. Table 2 presents the annual amounts of VAT that the various household groups were paying on the commodities before they were zero-rated.

TABLE 2

#### Annual VAT Burden on Households by Commodity and by Income Decile (in N\$ million)

Deciles	Bread	Bread, cake flour	Maize meal	Mahangu meal	Sunflower cooking oil	Processed animal fat	Fresh and dried beans	Water	Electricity	Total	% share
Poorest decile	4.3	6.4	36.2	3.6	4.2	0.052	0.4	0.1	0	55.3	6
Decile 2	6.3	4.4	41.3	4.7	5.8	0.10	0.8	0.7	0	64.2	7
Decile 3	8.1	5.9	41.2	6.0	7.0	0.00	1.1	0.7	0.5	70.6	7
Decile 4	9.1	8.1	46.4	6.5	8.9	0.091	1.2	0.3	0.3	80.7	8
Decile 5	11.9	6.3	47.1	8.7	9.3	0.105	1.7	1.2	1.5	87.4	9
Decile 6	13.1	8.1	48.7	10.4	10.5	0.116	1.3	1.7	1.7	95.6	11
Decile 7	17.5	7.6	49.5	9.0	12.1	0.275	1.2	4.6	4.8	106.5	11
Decile 8	18.3	9.2	47.3	9.8	14.4	0.00	1.2	5.8	9.4	115.4	12
Decile 9	21.3	7.0	38.3	6.4	12.5	0.079	1.5	12.9	24.5	124.5	13
Richest decile	23.2	5.9	28.0	4.9	10.6	0.057	2.1	36.7	45.7	157.1	16

Source: authors' calculations based on NHIES 2003/04 data.

Table 2 shows that zero-rating VAT on the commodities would, in principle, bring tax relief to the various household groups, although not in a uniform manner or, importantly, in a manner that favours the poor. As the zero-VAT policy was meant to benefit poor households, however, the subsequent analyses focus on this issue.

The poorest households are likely to benefit greatly from the consumption of maize meal when it was zero-rated because a tax burden of N\$36.2 million would be removed from the poorest decile. The highest tax burden of N\$49.5 million, however, would be lifted from

the seventh decile, and the richest decile would get tax relief of only N\$28.0 million, the lowest relief arising from zero-rating the tax on maize meal. This can be attributed to the fact that households in the poorest income deciles spend significant proportions of their incomes on maize meal, while the richest household deciles do not spend a large share of their incomes on this commodity. The poorest households would also secure a substantial tax relief of N\$6.4 million on bread and cake flour. This is the second largest VAT relief for the poorest households, after the maize meal VAT relief. On average, the second, third and fourth poorest deciles would gain about as much as the poorest decile. They would benefit greatly from zero-rating the tax on maize meal, sunflower cooking oil, mahangu meal and bread. These four household income groups, however, would benefit the least from the tax reform on all the other zero-rated commodities. The poorest and second poorest deciles would not benefit from VAT zero-rating of electricity because they do not consume this commodity: they mostly use kerosene lamps and kerosene was not zero-rated.

Ironically, households in the higher income deciles (seventh, eighth and ninth deciles) would benefit significantly from the VAT zero-rating. VAT burdens of N\$49.5 million, N\$47.3 million and N\$38.3 million on the consumption of maize meal would be removed from the seventh, eighth and ninth deciles, respectively. And unlike the poorest decile, the richest deciles are likely to gain greatly from the zero-rating of electricity (N\$45.7 million) and water (N\$36.7 million). Other commodities on which VAT zero-rating would benefit the richest deciles substantially include maize meal, bread and sunflower cooking oil. But the richest deciles would gain only slightly from the zero-rating of processed animal fat, fresh and dried beans, mahangu meal, and bread and cake flour. In effect, the richest deciles would gain the most from the zero-rating of all the commodities

Table 3 presents the potential percentage shares of VAT relief, by income decile and commodity, and shows that households that would benefit the most from the zero-rating of all the commodities are found in the richest five deciles. The poorest four deciles are likely to benefit the least from the 2000 and 2008 rounds of zero-rating. This indicates that zero-rating VAT did not accurately target poor households, especially with respect to the commodities that they acquire from the formal markets and/or consume the most.

TABLE 3

**Households' VAT Burden Shares by Income Decile and Commodity (%)**

Deciles per household equivalent monthly income	Bread	Bread, cake flour	Maize meal	Mahangu meal	Sunflower cooking oil	Processed animal fat	Fresh and dried beans	Water	Electricity
Poorest	3	9	8	5	4	7	3	0	0
Decile 2	5	6	10	7	6	1	6	1	0
Decile 3	6	9	10	8	7	0	9	1	1
Decile 4	7	12	11	9	9	1	9	0	0
Decile 5	9	12	11	12	10	16	14	2	2
Decile 6	10	12	11	15	11	17	10	3	2
Decile 7	13	11	12	14	14	37	10	7	5
Decile 8	14	13	11	14	15	0	10	9	11
Decile 9	16	10	9	9	13	11	12	20	28
Richest	17	8	7	7	11	9	17	57	52

Source: Authors' calculations based on the 1993/94 and the 2003/04 NHIES data.

As shown in Table 3, the richest decile is likely to get a tax relief of N\$157.1 million per year, which is almost three times the relief that the poorest decile would get (N\$55.3 million). The picture remains the same when the second poorest and the second richest deciles are compared, confirming that VAT zero-rating is likely to benefit rich households more than it would benefit poor households. This is a clear indication of the inability of VAT zero-rating to accurately target poor households.

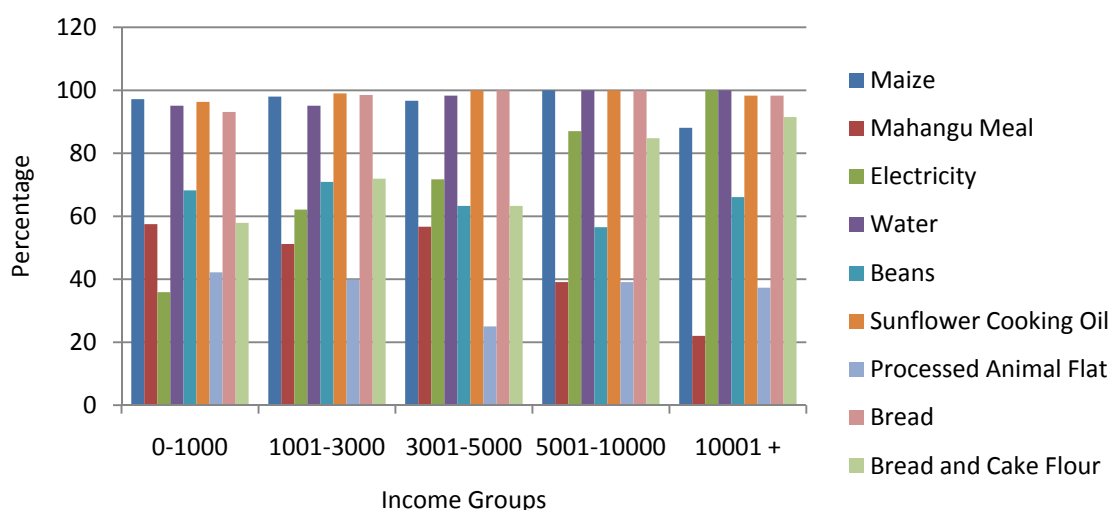
With respect to the percentage shares of household groups in total tax relief, Table 3.1 shows that the richest four deciles are likely to gain more than the other six household deciles combined with the poorest households getting only a paltry 6 per cent of the total VAT tax relief, while each of the second and third poorest deciles would get a meagre 7 per cent of the total VAT relief. This is in sharp contrast to the richest decile and the ninth and eighth deciles which are likely to get 16 per cent, 13 per cent and 12 per cent, respectively of the VAT tax relief. A number of factors are likely to influence the effect and overall impact of the VAT reform on household groups. These include types of commodities (whether basic or luxury), the source of the commodity, and how household groups obtain the commodities, as explained in the next sub-sections.

### 3.3 CONSUMPTION OF ZERO-RATED COMMODITIES BY INCOME GROUPS

Data from the 2009 field survey shed some light on the possible explanations for the disproportionate manner in which poor and rich households are likely to benefit from VAT zero-rating. The field survey yields some interesting findings on the consumption of the zero-rated commodities by households and income groups, and reveals a scattered impact across all income groups, as shown in Figure 6. For ease of analysis, household incomes were classified into five categories. The data reported are the incomes of the heads of the households or, in some cases, the incomes of the main respondents, depending on who was interviewed in a household. The assumption here is that the income of the household head is representative of the household income, an assumption which is obviously characterised by a downward bias in the case of households whose other members are drawing wage incomes or are involved in various independent income-generating activities that do not fall under direct control of the household head.

FIGURE 6

#### Consumption of VAT Zero-Rated Commodities by Income Group (% of Households)



Source: Field survey, 2009.

Figure 6 shows that 97.2 per cent and 98 per cent of the first and second low-income households, respectively, consume maize meal, while all the households in the fourth income group, which is in the high-income category, consume that commodity. An estimated 88.1 per cent of households in the highest income group consume it. Maize meal is thus a popular food consumed by both rich and poor households, albeit to varying extents. It is worth noting, however, that only 39.1 per cent and 22.0 per cent of households in the income groups N\$5,001–10,000 and N\$10,000 and above, respectively, consume mahangu meal, compared 50 per cent and above in the lower income groups. Mahangu meal, therefore, is relatively more important to the poorer households than maize meal.

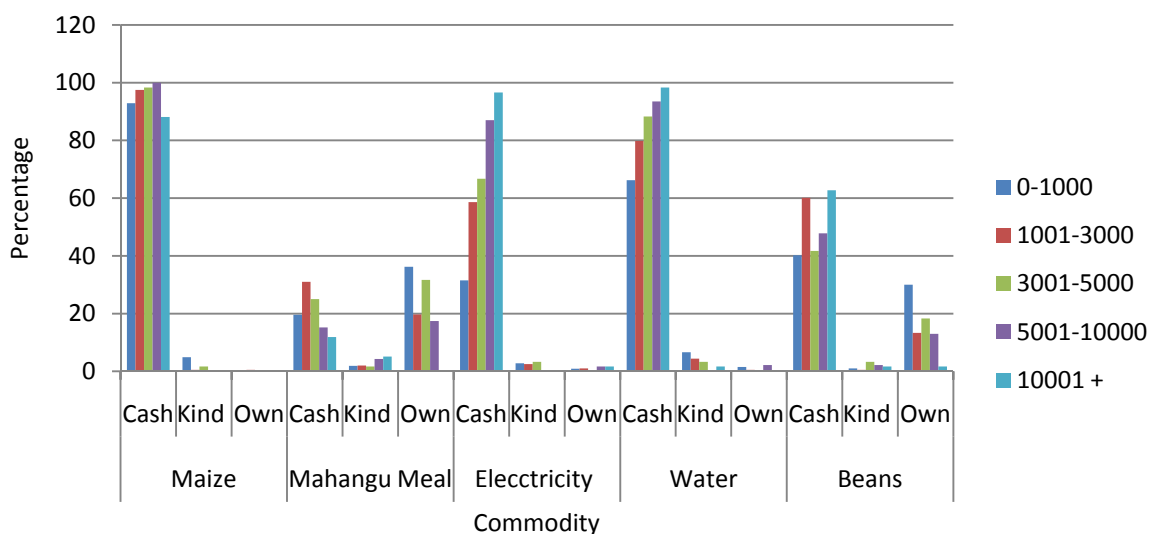
Furthermore, all the households in the highest income group and 87 per cent of households in the second highest income group consume electricity, while only 35.9 per cent of the households in the lowest income group do so. The figure also shows that all of the households in the income categories N\$3,001–5,000 and N\$5,001–10,000 consume sunflower cooking oil. On average, 99 per cent of households in all income groups consume sunflower cooking oil. Some 68.2 per cent and 70.9 per cent, respectively, of households in the income categories N\$0–1,000 and N\$1,001–3,000 consume fresh and dried beans, whereas 56.5 per cent and 66.1 per cent, respectively, of households in the income categories N\$5,001–10,000 and N\$10,000 and above consume these products. For the VAT zero-rating to achieve its stated objectives, especially the equity objective, it should have focused on those commodities that are mostly consumed by the poor, not on commodities like electricity that are consumed by only a small proportion of the poor.

### 3.4 ACQUISITION OF THE ZERO-RATED COMMODITIES

The effects of the VAT zero-rating of basic commodities on households also depend on how households in the various income groups acquire those commodities. The effects are greater on households that depend on the formal markets and lower on households that produce some of the commodities for their own use. The survey results indicate that poor households (those with monthly incomes of less than N\$1,000) produce some of the basic commodities for their own use. They obtain 36.2 per cent of mahangu meal, 30 per cent of beans and 24.5 per cent of processed animal fat from their own sources, while acquiring significant amounts of maize meal, sunflower cooking oil, bread, and bread and cake flour from the formal markets. Figures 7 (a) 7 (b) show whether the commodity is bought, received as remittance from relatives, or produced for own consumption. The first cluster for maize, for example, shows that households in the N\$0–1,000 income group buy more than 90 per cent of their maize requirements and receive about 5 per cent in kind as remittances from relatives. They are not significantly involved in own production of maize because of the inauspicious climatic and soil conditions mentioned earlier. Those conditions do not favour subsistence agriculture, especially maize production, in most parts of the country, and particularly in the northern regions where most of the poor live.

FIGURE 7 (A)

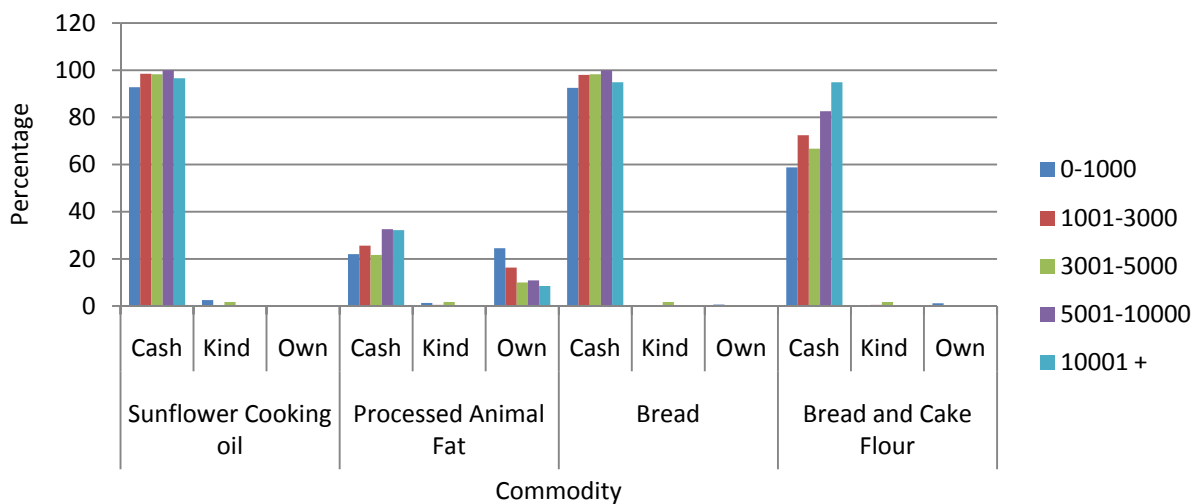
**Acquisition of Commodities (% of Households by Income Groups)**



Source: Field survey, 2009.

FIGURE 7 (B)

**Acquisition of Commodities (% of Households by Income Groups)**



Source: Field survey, 2009.

Low-income households are the only households that obtain some quantities of the zero-rated food commodities from their own production. The high-income households depend wholly on formal markets for these commodities. These results reinforce the observation that rich households are more likely to benefit from VAT zero-rating of the commodities than poorer households, because they obtain most of the commodities from formal markets where taxes are imposed.

### 3.5 OTHER COMMODITIES CONSUMED BY HOUSEHOLDS

The households covered by the field survey identified a number of commodities that they consume in large quantities and acquire from the formal markets where VAT is applied, but which had not been zero-rated. These include fish, meat, vegetables, other carbohydrates, beverages, fruits and detergents. The commodities that top the list are meat, fish, vegetables, other carbohydrates and beverages. It is surprising, however, that households did not mention milk among the commodities listed above, probably because most poor households own some livestock. But because of its nutritional value as an important source of calcium and vitamins, especially to children, milk is an essential commodity for general health and the physical and mental development of children. It should have been zero-rated at the inception of the VAT system to ensure that as many households as possible have access to it.

## 4 CONCLUSIONS AND RECOMMENDATIONS

Zero-rating of VAT on basic commodities in Namibia has the potential to significantly benefit poor households faced with a rising cost of living, high unemployment rates and limited capacity to produce their own food. This is especially true if the choice of commodities is limited to those that are consumed by the majority of the poor and that they acquire from the formal markets, such as maize meal, bread and cake flour, bread, sunflower cooking oil and mahangu meal. Ideally, the zero-rating of VAT on basic commodities consumed by the poor, as a policy measure, should reduce poverty and the country's wide income inequality by lessening the regressive effects of the tax system. But analysis of the 1993/94 and 2003/04 NHIES data shows that this has not been, and is not likely to be, the case, because households in the higher income deciles have benefited more, and are more likely to benefit, from the 2000 and 2008 rounds of zero-rating.

This is partly because households in the low-income deciles depend on their own production for some of the zero-rated commodities, as opposed to the formal markets where VAT is levied. Data from the field survey reveal that poor households are the only ones that obtain significant quantities of some of the zero-rated food commodities, such as mahangu meal, beans and processed animal fat, from their own production. High-income households depend entirely on the formal markets for these commodities. Moreover, it seems that the choice of commodities that were VAT zero-rated was not adequately informed by the prevailing consumption patterns, since some commodities that are not consumed by the majority of poor households, but which are consumed by majority of rich households, such as electricity, were also zero-rated. Importantly, commodities that most of the poor consume and acquire from formal markets—such as fish, meat, vegetables, other carbohydrates, beverages, fruits and detergents—were excluded.

In order to address the plight of poor households adequately, it is necessary to consider the proportion of poor households that consume the zero-rated commodities and how they acquire those commodities. If the policy is to have a greater impact on poverty reduction, it may be necessary to review the list of zero-rated items to include these commodities, and to identify those that the poor consume and acquire from formal markets in large quantities.

Further, since efficiency is an important consideration in the administration of any VAT system (thus ruling out any possibility of administering differential VAT regimes on the basis of income groups), the government might also have to consider strengthening and expanding



other existing policy responses, especially social transfers, to poor households, so as to complement the VAT-rating decision and explicitly and comprehensively address the plight of poor and vulnerable households. Though not addressed in this study, social transfers—which in Namibia include the old-age pension, disability pension, war veterans subvention, child maintenance grant, special maintenance grant, foster care grant and place-of-safety allowance—have huge potential to reduce poverty, especially among the poorest of the poor. To ensure the sustainability of the social transfers, however, those transfers could increasingly take the form of the targeted subsidisation of agricultural inputs to enable poor households to produce more of the basic food commodities, such as mahangu, that they have the potential and capacity to produce. They can then become self-sufficient in these commodities and thus build their resilience to recover from the current and other crises.

## REFERENCES

- Alderman, H. and Carlo del Ninno (1999). 'Poverty Issues for Zero Rating VAT in South Africa', *Journal of African Economies* 8 (12), 182–208.
- Coudouel, A. and P. Stefano (2005). *Analysing the Distributional Impact of Reforms*. Vol. 1. Washington, DC, World Bank.
- Dornbusch, R., S. Fischer and R. Startz (2004). *Macroeconomics*, Ninth Edition. New York, McGraw-Hill.
- Ebrill, L. M. et al. (2001). *The Modern VAT*. Washington, DC, International Monetary Fund.
- Government of the Republic of Namibia (GRN) (2003). *2001 Population and Housing Census*. Windhoek, Central Bureau of Statistics, National Planning Commission.
- Government of the Republic of Namibia (GRN) (2006). *NHIES 2003/04 Field Survey*. Windhoek, Central Bureau of Statistics, National Planning Commission.
- Government of the Republic of Namibia (GRN) (2008a). *A Review of Poverty and Inequality in Namibia*. Windhoek, Central Bureau of Statistics, National Planning Commission.
- Government of the Republic of Namibia (GRN) (2008b). *Namibia Labour Force Survey 2008 (Draft)*. Windhoek, Ministry of Labour and Social Welfare.
- Government of the Republic of Namibia (GRN) (2009a). *Preliminary National Accounts 2000–2008*. Windhoek, Central Bureau of Statistics, National Planning Commission.
- Government of the Republic of Namibia (GRN) (2009b). *National Accounts 2000–2008..* Windhoek, Central Bureau of Statistics, National Planning Commission.
- Kearney, M. and J. H. van Heerden (2004). 'Zero-Rating Food in South Africa: A Computable General Equilibrium Analysis', *South African Journal of Economic and Management Sciences* 7 (3), 521–531.
- Munoz, S. and S. Sang-Wook Cho (2003). 'Social Impact of a Tax Reform: The Case of Ethiopia', *Working Paper 03/232*. Washington DC, International Monetary Fund.
- Odada, J. E. (2008). 'An Overview of Structural Transformation of the Namibian Economy', in Bank of Namibia (ed), *Structural Transformation of the Namibian Economy: Insights from Other Countries*, Windhoek, Bank of Namibia, 16–69.
- Tait, A. (1988). *Value Added Tax: International Practice and Problems*. Washington, DC, International Monetary Fund.

## NOTES

1. The consumer price index (CPI) measures changes in prices of a fixed set of major consumer goods and services, while the GDP-deflator measures changes in prices of all goods and services produced in the economy. The main difference between these two indices is that the CPI is based on a fixed set of major consumer commodities, some of which are imported from other countries, whereas the GDP-deflator is based on a variable set of all commodities produced in the economy.
2. By broad definition a person is unemployed if s/he is of employment age (15 years and more) and does not have a job whether s/he is actively seeking employment or not. The strict definition only considers those over 15 years who are actively looking for employment but do not have jobs.
3. It is important to draw a distinction between exempting a commodity from VAT and having it zero-rated. On the one hand, a commodity is zero-rated when the producer continues to claim a rebate on VAT on intermediate inputs used, which is the case in Namibia, while on the other hand a commodity is exempted from VAT when the producer cannot claim a rebate on the VAT on intermediate inputs. In the end, however, the total burden of VAT is borne by the final consumer of the good or service.



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