



TRADE NOTES

WHAT AILS THE SUGAR INDUSTRY IN KENYA?

The sugar industry is both strategic and political; it ensures food security, improves rural lives and provides sustainable livelihoods for millions of Kenyans but it also has to suffer heavy government intervention. The industry is under constant threat of collapsing due to perennial challenges. The major crises the sub-sector is currently experiencing include liberalisation and increasing competition from cheap sugar imports, poor industry policies and structures that fail to address basic problems that would assist in recovery and continued government intervention that has resulted in mismanagement of the industry. During the Institute of Economic Affairs' public forum on 5th May 2004 the beleaguered sugar sub-sector's, *Mr. A. O. Otieno* (Kenya Sugar Board), *Mr. Shem Ochola* (Sugar Campaign for Change) and *Mr. Paul Gamba* (Tegemeo Institute) shared their views on the perennially troubled sugar sector. Below are some of the issues that were discussed. *Trade Notes* highlights the issues raised at the Forum.

INSIDE THIS ISSUE:

| | |
|---|---|
| Introduction | 1 |
| Challenges: What ails the Sugar industry in Kenya | 3 |
| Adjustments needed | 7 |

Introduction

Sugar is produced in more than 100 countries around the world. It is one of the most traded commodities with exports accounting for a quarter of global production. But it also has one of the most distorted global markets such that there is no level playing field. Sixty-five percent of world sugar trade comes from four countries, namely Brazil, Australia, Cuba and Thailand while the biggest importer is Russia. All major producer and consumer countries protect their markets from the lower priced sugar available in the world market. Therefore this market may not represent the benchmark of ascertaining a fair price for sugar.

Sugar as a product can be derived economically from two products, sugar beet and sugar cane. The latter is cultivated in the tropics and the former in temperate areas. Seventy percent of world production comes from sugar cane and the three big producers are; Brazil, which produced 20.3 million metric tonnes (MT) in 2003, India 19.9 million MT and the European Union (EU) 15.5 million MT.

Though Kenya has excellent cane growing weather conditions, local sugar producers are only able to meet about two-thirds of consumption needs i.e. 450,000 MT. Production is concentrated in Western Kenya with mainly mill white sugar being produced. It is also produced in Rift Valley and Coast provinces. Commercial production of sugar in Kenya began in 1902 with Miwani being the first cane factory to be set up. This was followed by the setting up of Ramisi Sugar factory in 1927, Muhoroni in 1966, Chemelil in 1968, Mumias in 1973, Nzoia in 1978 and South Nyanza Sugar Company (Sony) in 1979. Since then, there has been a socio-economic improvement in the lives of the rural population through job and wealth creation.

Sugar's Multifunctional Role in the Country

The sugar sub-sector plays a major role in the Kenyan economy and is a source of livelihood for millions. The national annual consumption of sugar has been increasing and is about 700,000 MT yet the annual production stands at less than 500,000 MT. As can

be seen in Table 1, in 2003, local consumption increased by 1.6% while output of sugar declined by 9% from 2002 levels. The decline came about through a lull in the amounts supplied by farmers. Meanwhile, sugar imports increased by 40% in 2003 from the previous year ostensibly to cover that deficit.

The sugar sub-sector is labour intensive providing direct and regular employment for 35,000 workers. Small-scale producers dominate the sub-sector. As at beginning of 2000, 88% of a total area of 108,793 hectares belonged to small-scale growers. It is also of great importance to women. It is the main source of income to over 200,000 more people in the agro-processing, distribution and other related services. The sub-sector supports an estimated 2.6 million people representing 7-8% of the population. Its share of the agriculture GDP is 7% or KShs.9.1 billion.

However, the sugar industry has been marked by gross mismanagement, constant government interference and insufficient incentives resulting in a drastic decline in production levels and poor returns for farmers. The dismal performance is not unique. There have been similar setbacks in other industries of the agriculture sector. This is partially due to Kenya inadequate adjustment to liberalisation and globalisation forces, which have greatly affected the competitiveness of the sector.

Background of the Industry

Due to the strategic nature of the commodity, the government decided immediately after independence to invest heavily in the sugar industry to achieve self-sufficiency and earn foreign exchange

through exports. In 1966, Kenya was importing 70 percent of her sugar requirements but by 1976, domestic production stood at 296,000 MT while consumption demand stood at 253,000 MT. However, in later years this changed and Kenya is now a net importer of sugar. Table 1 shows that local demand for sugar supply has consistently outstripped local supply in recent times. The figures show that while production has slowed, amounts being imported are increasing. Early attempts to streamline the sugar industry were unsuccessful and only brought about a lot of confusion. In 1994 for example, the government released a paper called the *Sugar Sub-sector Restructuring Study* (SSRS). The study proposed among other matters, selling shares (Chemilil), hiring technical consultants and introducing performance-based contracts (Sony, Muhoroni and Nzoia) and privatisation (Nzoia and Muhoroni).

The proposals did not go down well with the farmers who claimed they were not consulted. Furthermore, during that period, the government began liberalising various markets and privatising some parastatals. But this was done without any legal or policy framework in place.

Trade liberalisation for the sugar sub-sector removed barriers restricting the flow of trade and eliminated price controls. This resulted in an increase in trade rather than in productivity and competitiveness in the local industry. The import figures of the period 1994-1997 in Table 1 have no relationship to the shortfall in consumption figures against local production. It was assumed that consumption figures were either exaggerated or that substantial imports were not recorded. However, reports indicated that there was a glut in the local sugar market occasioned by the supply of cheap imported sugar during that period. This

Table 1: Sugar Production, Imports, Consumption and Exports in Kenya; 1999-2003 ('000 Tonnes)

| Year | Production | Imports | Consumption | Exports |
|------|------------|---------|-------------|---------|
| 1994 | 303.29 | 174.05 | 560.00 | NIL |
| 1995 | 384.17 | 24.44 | 560.00 | 17.22 |
| 1996 | 389.14 | 65.83 | 570.00 | 24.48 |
| 1997 | 401.61 | 52.37 | 580.00 | 25.05 |
| 1998 | 449.13 | 186.52 | 587.13 | NIL |
| 1999 | 470.79 | 57.70 | 609.43 | NIL |
| 2000 | 401.98 | 118.01 | 631.20 | 2.09 |
| 2001 | 377.44 | 249.34 | 644.50 | 3.60 |
| 2002 | 494.24 | 129.97 | 680.49 | 12.05 |
| 2003 | 448.49 | 182.23 | 691.56 | 11.30 |

oversupply was detrimental to local producers who were unable to dispose of their higher priced supplies. Thus trade liberalisation at that time had adverse results as the local industry had not been given time to develop sufficiently to meet its challenges.

Following this unparalleled crisis that led to the near collapse of the industry, the Sugar Act (2001) was enacted to bring order to the industry. The Act came into being in 2002. It empowered the newly created Kenya Sugar Board (KSB) to develop the industry and its regulations. KSB replaced the Kenya Sugar Authority (KSA), which had been set up in March 1973 to try and promote the development of the industry but failed.

In addition, a Task Force was appointed by the Ministry of Agriculture in March 2003 to look into the problems of the industry. Poor management, lack of a proper marketing and poor infrastructure were but a few of the challenges named in the report. A team of stakeholders from the sector in conjunction with the Ministry of Agriculture developed the Kenya Sugar Industry Strategic Plan (5-10 years) from the recommendations of the Task Force. The Plan's aim is to revive the industry and to make it profitable and competitive.

Some of the proposals have been implemented. The government attempted to ensure that there was good management at the factories. Some sugar companies such as Mumias Sugar Co. have recorded profits in recent months with management changes being effected. Also the Sugar Development Fund (SDF) rates were lowered by 50 percent to facilitate the development of cane, infrastructure and factory rehabilitation.

Despite these efforts, the industry is still undergoing a crisis. The main beneficiaries seem to be sugar importers and the factories. The main losers are farmers who are impoverished and consumers who have to pay higher prices for the commodity as Table 2 illustrates.

CHALLENGES: WHAT AILS THIS INDUSTRY?

Broadly, the problems facing the sugar sub-sector include:

1. Weak institutional structures and policy governing the sugar industry

Inconsistencies in policy, weak institutional and marketing structures have been contributing factors to the industry woes. Moreover, the key stakeholders have not been fully involved in the creation of the industry policies. Instead, the government through excessive control of the sector may have been instrumental in the industry decline. There is thus the need for a proper policy and legislative framework to be put in place or the need for existing ones restructured and implemented effectively.

(i) Over-regulation

There is no effective representation of farmers as the main stakeholders in decision-making bodies of the sub-sector. Though the *Sugar Act 2001* is meant to address the poor performance of the sugar industry, it has a lot of weaknesses that fail to tackle the problems. The Act grants the government immense control in the sector particularly in the management structure. The primary stakeholders, the farmers and farmers' organisations, do not have sufficient control the Kenya Sugar Board (KSB) the key institution of the industry.

➤ Regulatory Organs

The main industry organ is the Kenya Sugar Board. KSB was established to regulate, develop and promote the sugar industry; coordinate the activities of individuals and organisations in the industry and; facilitate equitable access to the benefits and resources of the industry by all interested parties. KSB has 12 members and renewable tenure of three years (Box 2). Another key player is the Minister of Agriculture who imposes levies on domestic and imported sugar, Special Development Levy (SDL), makes the regulations and appoints the SAT members in consultation with the Attorney General.

Box 1: The Key Industry Organs

- Kenya Sugar Board
- Minister of Agriculture
- Sugar Development Levy
- Zonal Committees - Farmers voice
- Marketing Agency (Imports & Exports)
- Sugar Arbitration Tribunal (SAT)

The stakeholders in the industry include farmers, the government, sugar factories, out-grower institutions like the Kenya Sugarcane Growers Association (KESGA), Kenya Sugar Research Foundation (KESREF), importers, financial institutions, transporters, consumers and lobby groups like Sugar Campaign for Change (SUCAM). Unfortunately, not all of them have been involved in the due processes and most of them have not been represented. This has resulted in a small group making decisions that affect the entire industry. This is occasioned by political interference.

Most of the industry actors want a stakeholder-based system benefiting all. The farmers should be given more powers to manage the industry without unnecessary interference. The government should divest from many industry activities.

Box 2: Kenya Sugar Board Representation

12 seats allocated as:

- Minimum 6 seats to farmers
- 1 seat to manufacturers representative
- Minister's representative - Agriculture
- Minister's representative - Treasury
- Attorney General - representative
- Miller representative
- CEO Kenya Sugar Board

The poor and ineffective dispute resolution mechanism provided by the Sugar Arbitration Tribunal (SAT) lacks independence from the executive and has no ability to enforce orders. There are no provisions for appeals and no indication that the decision is final.

(ii) Sugar Marketing Arrangements

The present system of marketing of sugar is uncoordinated, inefficient and benefits only a few traders to the detriment of the other industry players. Marketing is left to distributors, middlemen & unregulated speculators.

This has resulted in disputes about figures on domestic consumption and demands resulting in instability in supply and demand trends and subsequent flooding of imports. As a consequence, the industry loses KShs.5 billion annually to a few traders.

The present system contributes to high consumer prices in Kenya, which sell at a premium of US\$ 560 per tonne. This contrasts sharply with the consumer prices in the United States where it is US\$ 430 and in the EU where it is US\$ 530 (see Table 2). This makes the Kenya sugar market perhaps the most attractive open market in the world after the EU in terms of premium sugar destination market. Other countries have better organised structures providing for single desk marketing e.g. Mauritius has Mauritius Sugar Syndicate (MSS), Swaziland has Swaziland Sugar Association and in South Africa, the South Africa Sugar Association is the sole Marketing Agency.

Table 2: Comparative internal prices of sugar in various regimes

| Market | Price/Ton (US\$) |
|---------------------|------------------|
| EU | 530 |
| SPS* | 448.67 |
| US | 430 |
| World Mkt | 125 |
| Kenyan Domestic Mkt | 600 |
| Sudan | 345 |

*EU Special Preferential Sugar

Source: SUCAM

2. International Trade Regimes of Sugar

The international sugar trade regime is affected by considerations other than supply and demand. Due to the political nature of the commodity, various markets for sugar exist. There are four regimes under which sugar is traded and this play a key role in determining sugar prices.

- First, a preferential and quota regimes offered by developed countries, notably the USA and the EU. In Kenya's case, the latter is the EU Special Preferential Sugar Arrangement where supply needs are met through the African Caribbean and Pacific (ACP) countries Sugar Protocol.
- Second, there are numerous international sugar agreements providing frameworks for the protection and trading in the commodity.
- Third, free trade arrangements in regional trading blocs like EAC, SADC and COMESA.
- Finally, the residual free market trading under the World Trade Organisation's (WTO) most favoured nation obligation or bilateral commitments of individual countries.

(i) COMESA-FTA Agreement

Trade liberalisation is another major challenge facing the local industry. This has not only resulted in the importation of cheaper sugar, but has spawned corruption in the industry that is hurting farmers and consumers alike. Kenya is a member of the COMESA Free Trade Area (COMESA-FTA). The FTA obliges the country to allow duty and quota free access for products including sugar from the other FTA member countries into her market. But it also provides for the imposition of safeguard measures in order to reduce the quantities of commodity imported for a stipulated period of time to allow a particular industry to recover.

Kenya's sugar industry is not competitive hence cheaper imports could probably inflict irreparable damage to the industry in its present state. Kenya requested for and was granted a four-year safeguard period to maintain tariff protection beyond a certain imported quota. During that period (2004-2007), the industry should be able to increase its competitiveness. This was an extension of the one-year safeguard previously given, which the government felt was inadequate. Under the current arrangement, up to 2007 Kenya can import a maximum of 200,000 MT from the COMESA-FTA duty free to cover the national deficit. Any quantity above that amount or from non-COMESA -FTA

countries invites the application of full tariff (Tables 3.1 and 3.2).

Table 3.1: Prevailing Tariff Structures: Imports from COMESA-FTA (within the quota)

| | Mill white Sugar | Brown Sugar | Raw sugar | Industrial sugar |
|------------------------|------------------|-------------|------------|------------------|
| Customs duty | 0% | 0% | 0% | 0% |
| Value added tax | 16% | 16% | 16% | 16% |
| SDL | 7% | 7% | 7% | 7% |
| Total | 23% | 23% | 23% | 23% |

Source: Kenya Sugar Board

Table 3.2: Prevailing Tariff Structures: Non-COMESA-FTA countries and imports exceeding quotas

| | Mill white Sugar | Brown Sugar | Raw sugar | Industrial sugar |
|------------------------|------------------|-------------|-------------|------------------|
| Customs duty | 100% | 100% | 100% | 100% |
| Value added tax | 16% | 16% | 16% | 16% |
| SDL | 7% | 7% | 7% | 7% |
| Total | 123% | 123% | 123% | 123% |

Source: Kenya Sugar Board

Industrial sugar deficit is between 80,000– 100,000 metric tonnes. There are 30 companies that utilize refined sugar in their manufacturing process. These are in beverages, confectioners, and pharmaceuticals, baking & canning industry. There are different tariffs that apply, which include the COMESA zero tariff, refined sugar, raw sugar and white sugar tariffs. (Tables 3.1 & 3.2).

The KSB is meant to closely regulate sugar imports according to the COMESA agreements. It has put in place regulations for the registration of sugar importation. But this has been abused and incidents of importers exceeding the quota level without paying the duties are not uncommon. Some also under-declare to evade taxes. In addition, the licensing procedure has been questioned. These activities stifle local production through unfair competition. Moreover, since the tariff imposed is linked to the value of the imported sugar (ad valorem) determined by the production cost in the exporting country which is much lower than that prevailing in Kenya, even with tariff applying may still make that sugar competitive domestically. For example, in Sudan, the Kenana Sugar Company average cost of production is US\$ 230 per ton.

(ii) EU-ACP Agreement

Within the framework of the EU-ACP Cotonou Agreement, Kenya exports sugar despite the national shortfall as Table 1 shows. The country (along with 16 of the 77 ACP members) under the EU-ACP Sugar Protocol has been allocated a 10,000MT quota to export raw sugar at guaranteed high EU prices. The EU itself protects its sugar market and distorts the world market despite the preferential arrangements it has with some of the ACP countries. Through heavily subsidising the industry, it restricts market access for cheaper sugar producers into the EU; undercuts export opportunities for them in other markets; undermines value-added processing even for the ACP chosen few; as well as depressing and destabilising world prices. This protection and its deleterious effects are replicated in other regional blocs around the world including MERCOSUR and NAFTA.

Reforms are underway for the EU agriculture sector and sugar specifically to make it compatible with the WTO Agriculture Agreement. If eventually that happens, this would mean that either Kenya would have its quota reduced or would experience a fall in the price the sugar exports currently enjoy.

(iii) International Agreement & Tariff Regimes

There are no major prospects for global sugar price recovery unless substantial trade liberalisation is undertaken. This seems unlikely in the foreseeable future given the fact that the agriculture negotiations in the Doha Round have stalled. The global market is full of high tariff structures and other forms of protections such as quota systems. Sugar protocols and special preferential sugar arrangements prevail. Most members of the WTO including Kenya maintain high barriers in the sub-sector though the country's protection levels are minatory in comparison (see Table 4). Kenya's WTO bound rates for sugar is 100 percent Table 3.2).

Table 4: WTO Member Tariff Bindings for Sugar - Comparative Analysis

| Country | Market price |
|-------------|--------------|
| Kenya | 100% |
| Tanzania | 120% |
| Nigeria | 150% |
| Tunisia | 190% |
| Bangladesh | 200% |
| Switzerland | 211% |
| Finland | 493% |

Source: Sucam

Most governments' support for sugar is provided

mainly through prices. Sugar production requires fixed capital investment, which means that:

- The premium over world price is greater than for other commodities,
- There are larger differences in prices between countries because of different support needs, and
- It is difficult to reconcile differences among regional trading blocs with respect to net trade position cost, competitiveness, prices and support policies.

3. Low productivity at farm level and costly inputs

The cost of sugar production in Kenya is high compared with other countries. The world market price of sugar ranges between US\$ 125-& 168 which is well below the cost of production of Kenya where it averages US\$ 500 per ton. At farm level, there are poor cane husbandry practices leading to low yields in quantities per hectare. Use of poor seed variety results in low sucrose content and late maturity. This does not compare well with other regional sugar producers.

The Kenyan total field cost of sugar production is \$US 420 per ton. In Sudan, the Kenana average cost of production is US\$230 per ton. The average total field cost for the African EU-ACP Sugar Protocol holders is US\$ 197.2; while the total average cost including overheads is US \$340. The average cost for the tenth lowest cost producer in the world is US\$ 178; while the total average cost including overheads is US \$ 271.0. The ten lowest cost sugarcane producers of the world are Australia, Brazil, Colombia, Guatemala, Fiji, Malawi, Swaziland, Thailand, Zambia and Zimbabwe.

Other factors that are responsible for the high costs of production include:

- High costs of cane procurement (70 percent of cost of production goes to procurement)
- Harvesting & handling charges
- Costly inputs - high costs of fertilizers, herbicides etc
- Agricultural equipments such as tractors are too expensive
- Failure to provide credit facilities for small growers

- Poor research and extension services
- Adverse climatic conditions
- Lack of irrigation facilities
- Too much reliance on small scale out grower farms

These factors led to an output decline by 6.7% from 2002 to 2003. The decline was also occasioned by failure by farmers to supply cane to the factories in February to April 2003 in protest against the reduction in cane prices and increased sugar imports. The area under cane harvested also declined by 6.6% and average cane yield by 2.0 (Table 5).

Poor infrastructure has for years dogged the industry with farmers and the sugar factories hardest hit. Poor roads have been a hindrance to transportation of cane to the factories with the resulting wear and tear. Underdevelopment in most parts of the sugar belt attests to the poor infrastructure - dilapidated roads, lack of access to schools and health facilities. Muhoroni and Miwani sugar producing areas have been especially hard hit.

There has been the limited use of modern technology, which would increase production and decrease in the cost of production. Very little farm mechanization and intensive farming are practiced.

4. Decline in productivity and efficiency at factory level

Mismanagement in the factories at all levels of production and decision-making has contributed to inefficiencies. Government interference has also not helped the situation. Lack of funds and poor use of funds for factory rehabilitation has led to low productivity levels at the factory. This in turn has resulted in low sugar yields, capacity under-utilization and thus, low income to farmers affecting their cane husbandry practices.

ADJUSTMENTS NEEDED

Potential solutions include:

Table 5: Area under sugar Cane, Area Harvested, Production, and Average Yield, 1999-2003

| | 1999 | 2000 | 2001 | 2002 | 2003 |
|----------------------|-----------|-----------|-----------|-----------|-----------|
| Area under cane (Ha) | 108,793 | 107,985 | 117,131 | 126,826 | 122,580 |
| Area | 51.833 | 57,243 | 47,794 | 54,010 | 50,468 |
| Production (tonnes) | 4,415,781 | 3,941,524 | 3,550,792 | 4,501,363 | 4,204,055 |
| Average Yield | 78.39 | 60.52 | 63.71 | 70.67 | 69.17 |

*Does not include area harvested by non-contracted farmers

Source: Kenya Sugar Board

➤ *Accommodation of Exits*

With the problems persisting in the industry, some of affected farmers should be given an option to engage in other viable alternative enterprises or non-farm activities e.g. trade and agro-processing activities. However, this alternative may not be available because the farmers have low resource endowment, are poorly educated and are unskilled. Politics of the areas also come into play and farmers are forced to continue with the loss making way of living. In some sugarcane growing areas such as the Nyanza belt, the alternative land use is negligible. Thus it is important for the farmers to have a high capital outlay and be equipped with relevant skills and be provided with efficient markets. (*) Such a well-planned exit is necessary and not unique to the sugar sub-sector. Moreover, the worldwide trend is for fewer more productive larger scale farmers.

➤ *Policy and Structures*

- a) The board should have greater representation from farmers including all farmer organizations, the coffee and tea sub-sectors. The government should only facilitate the operating environment.
- b) The need to privatise the industry to restrict government interference and inject some professionalism in the management. This will increase efficiency and boost productivity. Mumias Sugar Company has been a shining example of what private orientation can do to the industry.
- c) Adoption of a single desk marketing system for all sugar sales to monitor and coordinate effectively imports, exports and domestic sales to rid the industry of the exploitative middlemen.
- d) The sugar companies should be allowed to utilise the cess fund paid to local authorities to improve the road infrastructure in cane growing areas. Currently, local authorities in cane growing areas do not utilise funds obtained from sugar factories to maintain access roads.

➤ *Designate Sugar as a Sensitive Commodity*

Sugar could be classified and treated as a special and sensitive commodity due to its multifunctional role as most countries do. Additionally, it should also be considered a basic food and be zero-rated in terms of VAT in order to reduce consumer prices. Currently, the farmer has to pay: 16 percent VAT and 7 percent SDL. Incentives should support farmers to sell without burdening consumers. Further, to reducing deductions from farmer proceeds, government levies and taxes on sugar inputs (fuel, fertilizers, implements) should be reduced to lower the costs associated with growing cane and make Kenyan sugar more competitive vis-à-vis imported sugar.

➤ *Industry Safeguards*

Measures to safeguard the sub-sector from the negative effects of liberalisation need to be considered and should include utilisation of safeguards, application of anti-dumping legislation and strict monitoring of the COMESA zero tariff sugar importation. This should cushion local producers until they become competitive. Current world production of 129.1 million MT in excess of annual consumption of 124.6 MT creates an avenue for dumping which should be curbed.

➤ *Minimising Production Costs*

This can be achieved through:

- Proposed irrigation policy from the component of SDL.
- Shorter cane maturity
- Mechanisation and intensive farming
- Predictable harvesting program and planning.
- Product diversification and value addition. i.e molasses can be a source of energy (co-generation), which can be spread over the cost of sugar.
- Extension services should be provided
- Easier access to credit facilities

➤ *Revamp sugar cane research*

There should be more resources for research and development into more productive cane varieties and methods of cane husbandry. This should introduce high yielding, sucrose rich varieties of cane. The sucrose content of cane grown by Kenyan farmers is much lower than that found in sugar exporting countries such as Sudan and Brazil. The Kenya Sugar Research Foundation should be supported financially in order to carry out the necessary research.



**INSTITUTE OF
ECONOMIC AFFAIRS**

ACK Garden House
1st Ngong Avenue
P O BOX 53989
00200 - Nairobi
Kenya

Phone: 254-020-2717402, 2721262
Fax: 254-020-0716231
Email: admin@ieakenya.or.ke

The Institute of Economic Affairs (IEA) is a civic forum which seeks to promote pluralism of ideas through open, active and informed debate on public policy issues. It advocates liberal values in society i.e. individuals' economic, social and political liberties, property rights, democratic government and rule of the law. The IEA is independent of political parties, pressure groups and lobbies, or any other partisan party.

**PUBLISHED BY THE
TRADE INFORMATION
PROGRAMME**

DIRECTORS:

DR. JAMES KARUGA
PROF. ANYANG' NYONG'O
MR. JOE GICHUKI
MR. EVANS OSANO
MS. LILIAN ONDUKO
MS. MUSABI MUTESHI
MS. BETTY MAINA

EDITORIAL:

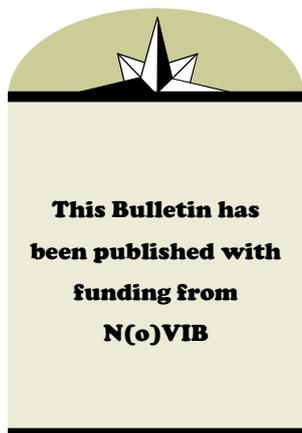
MIRIAM OMOLO
MARY ODONGO

WRITTEN BY:

MIRIAM OMOLO

DESIGN & LAYOUT:

NELLY KIBATHI



**This Bulletin has
been published with
funding from
N(o)VIB**