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1. INTRODUCTION

A proper application of Weights and Measures practices is critical in order to ensure that there is clarity and certainty about measures used; that producers, traders and consumers are protected; that government collects revenues entitled to it and that proper statistical analysis of production levels may be done.

Within Tanzania these issues are not being properly addressed as a result of an under-resourced Weights and Measures Agency. There are however opportunities to address the constraints faced by the Agency.

1.1. THE WMA IN TANZANIA

The Weights and Measures Agency (WMA) is an Executive Agency, responsible for fair trade transactions through certification of weights and measures. It is the sole agency in Tanzania for enforcing the Weights and Measures Act No.20 of 1982.

Since 1999 and in pursuance to the Executive Agencies Act Number 30 of 1997, the WMA replaced the former Directorate of Weights and Measures under the Ministry of Industry and Trade. The move was part of the Civil Service Reform Programme (CSRP) to increase efficiency and effectiveness of public service delivery.

WMA is solely dedicated to protecting consumers, businesses and manufacturers from unfair practices through the application of accurate weights and measures. It endeavours to ensure optimum use of resources and fair trade interactions between investors, producers, transporters and consumers with an emphasis on consumer protection.

1.2. WMA STRUCTURE

The Commissioner for Weights and Measures is the Chief Executive Officer. The Main Office for the Agency is located in Ilala, Dar es Salaam.

Additionally, the WMA has Regional Offices in each of the twenty mainland regions, manned by officers with skills, training and knowledge in legal metrology.

WMA has an advisory board made up of 8 Members, including representatives of TCCIA (Tanzania Chamber of Commerce Industry and Agriculture) CTI (Confederation of Tanzania Industry) and TBS (Tanzania Bureau of Standards). The Permanent Secretary of the Ministry of Industry and Trade chairs the board.

This document is part of an overall study named “Competitive Analyses of the Seven Subsectors in Tanzania”.

1.3. WMA OBJECTIVES

The WMA's strategic objectives are;

- Minimisation of weights and measures that do not conform to approved designs or meet the required accuracy.
- Curtail the importation and /or manufacturing of substandard weighing and measuring instruments in the country.
- Offering leadership in metrology that meets best practices and standards.
- Ensuring WMA's policy and strategy are kept up to date.
- Operating resource management systems that are highly feasible, effective and efficient.
- Executive processes and service delivery systems that are highly efficient and effective.

1.4. EXISTING LEGISLATION

- Weights and Measures Act No.20 of 1982. (plus amendments)
- Executive Agencies Act Number 30 of 1997

1.5. WMA ACTIVITIES

The WMA activities centre on three major functions namely (i) to provide certification of weights and measures instruments, (ii) to increase consumer awareness in matters relating to weights and measures and (iii) to transform the weights and measures body into an efficient, effective and well managed agency.

1.5.1. Certification of Weights and Measures

- Provide certification by conducting inspection, verification and calibration of weights and measures.
- Approve new patterns of weights and measures.
- Maintain accurate and uniform weights and measures standards through traceability from international to commercial level.

1.5.2. Increase Consumer Awareness

- Advice stakeholders on proper use, care and custody of weights and measures.
- Provide protection of consumers in relation to weights and measures.

- Establish a consultation mechanism between the Agency and stakeholders in the public and private sector.
- Attend to complaints.

1.5.3. Transform the Weights and Measures body into an effective and efficient well-managed Agency

- Recruit qualified staff.
- Capacity building in terms of equipment and facilities.
- Assurance of ethical practice of weights and measures staff.
- Enforce the Weights and Measures Laws.

1.6. AFFILIATION TO REGIONAL AND INTERNATIONAL ORGANISATIONS

The WMA is affiliated to several international and regional organisations with the aim of exchanging expertise and information, cooperative training, inter comparisons and resources sharing.

The WMA represents the country in the International Organisation of Legal Metrology (OIML) and in the Southern African Development Cooperation in Legal Metrology (SADC MEL). It also works in close cooperation with other technical organisations such as the International Electro-technical Commission (IEC) and the International Organisation of Standardisation (ISO) amongst others.

2. WEIGHTS AND MEASURES PRACTICES IN TANZANIA

2.1. LEGISLATION AND PRACTICE

The manner in which agricultural goods must be sold in Tanzania is laid out in the Weights and Measures Act of 1982 and subsequent amendments. According to existing legislation, specific goods must be sold by nett weight or measure except when in quantities not exceeding 50 grams or 50 millilitres. There are specified packing standards for agricultural goods as well as specified quantities in which certain goods shall be pre packed.

Maximum quantities, when packed in containers other than rigid containers of glass, plastic or metal, are as follows:

TABLE 1: MAXIMUM QUANTITIES

Beans	80kgs
Maize Grain	90kgs
Millet	90kgs
Rice	100kgs
Rice Paddy	75kgs
Sunflower seeds	40kgs
Wheat Flour	90kgs

Perishable agricultural goods such as sweet potatoes, eggs and fresh fruits must be sold according to weight or number.

In order to compare regulation with practice a sample of bags were weighed in Iringa market:

Maize

Sample-3 Bags

1st bag from Iringa rural-Isimani weighed 100kgs

2nd bag from Songea weighed 200kgs

3rd bag from Njombe District in Iringa weighed 150kgs

Average nett weight for all was 150 kgs with a maximum variance of 100kg

Rice

Sample-3 Bags

1st bag from Pawaga in Iringa rural district weighed 208kgs

2nd bag from Madibira in Mbarali District in Mbeya weighed 200kgs

3rd bag from Rujewa in Mbarali District in Mbeya weighed 217kgs

Average nett weight for all was 208 kgs with a maximum variance of 9 kg

Onions

Sample-3 Bags

1st bag from Ruaha Mbuyuni weighed 125kgs

2nd bag from Msosa weighed 120kgs

3rd bag from Malolo-Kilosa District in Morogoro weighed 140kgs

Average nett weight for all was 128 kgs with a maximum variance of 20 kg

It is interesting to note that not only do the weights not comply with Government regulation, there is also an alarming variance in the bag weights. Traders in Iringa assert that they sell onions in 120kg bags, yet the same bags are sold in Kariakoo market as 160 kg bags. Bulk bags such as these are referred to as either *lumbesa's* or *kosovo's*. A "standard" onion *lumbesa* is equal to no less than six or seven *debes* and a *kosovo* is a package as large as 170kgs. A *lumbesa* refers to more than a bag and varies in size depending on the commodity stored in it.

These are not legal measures, though they are the most common measure for bulk trade. Since the amendment subsidiary legislation of 5th October 1984, the law allows the trade of certain agricultural products to be conducted according to weight or **capacity** measure provided that the capacity measure does not exceeding 20litres include, amongst others, beans, peas, rice, millet, maize and sunflower.

Perhaps as a result of this, the most common measurement used in the trade of agricultural produce by the small producer is the *debe*, a plastic container of approximately 20 litres used mostly for refined cooking oil. Since the subsidiary legislation of October 1984, this has been acknowledged as a customary term of Weights and Measures in use in trade. Within the onion subsector, 12 *debes* make up one *kosovo*. This is up from 1995 when a bag consisted of 8 *debes*.

Another much used customary measurement is the *sado* at a purported 4 litres. It derives its name from a paint tin named after Sadolin who were once the dominant firm in the local paint industry. It does not appear to be an officially acceptable capacity measure although there is a measure for that capacity that is permitted called a "pishi". Other acceptable customary measures of capacity according to the 1984 amendment are as follows:

TABLE 2: CUSTOMARY MEASURES OF CAPACITY ACCORDING TO THE 1984 AMENDMENTS

nusu koroboi	0.05litre
koroboi	0.1 litre
robo kibaba	0.25 litre
nusu kibaba	0.5 litre
kibaba	1 litre
pishi	4 litres

The problem with the Sado, whether officially sanctioned or not, is that any 4 litre tin of paint is considered to be a "fair ", measurement. In reality, the nett volume for the various 4 litre paint tins available in the market today varies by as much as nearly half a litre. An analysis of paint tins with a declared volume capacity of 4 litres illustrates this:

TABLE 3: ANALYSIS OF PAINT WITH DECLARED VOLUME CAPACITY

TYPE OF PAINT	NETT VOLUME CAPACITY (LITRES)
Coral Paint	3.940
Robbilac	3.710
Sadolin(plastic container)	3.590
Goldstar	3.925
Sadolin (tin)	3.635

2.2. WEIGHTS AND MEASURES PROCEDURES AT FARM LEVEL

The practice of selling agricultural produce without the use of certified scales is commonplace. Virtually all transactions at farm level are conducted without the intervention of the WMA and its Assizers. The WMA does not have the capacity to ensure that the law is adhered to due to financial and operational constraints.

Agricultural produce is, more often than not, sold at farm level by the *debe* and is either packed into bags on site or at collection centres operated by agents and/or middlemen. There is strictly speaking, no such thing as a “standard bag size”. From the starting point of a factory produced polypropylene (PP) bag of 50kgs or 100kgs, produce is stuffed into *lumbesa* or *kosovo* “bags” that can contain as much as 120-170kgs of product.

Lumbesa packages are not exclusively made using polypropylene bags. In the case of certain perishables the PP bag is replaced by jute bags often purchased second hand. For some perishables and fruits such as tomatoes and pears, the *lumbesa* is built on a platform of a woven reed basket known as a *tenga*. Individually, a *tenga* will hold approximately 50- 65kgs of produce and is used mostly in the trade for fruits and vegetables.

Using a *tenga* as a base, a fortified tube is constructed approximately 24 inches in diameter and around 1-1.5 metres high to create a firm standing package that will hold anything between 100-120kgs of produce. The tube is fortified with strong brown wrapping paper ordinarily used by manufacturers of sleeping mattress. This material is favoured by makers of this particular form of *lumbesa* because of its sturdiness and durability.

Finally the *lumbesa* is crowned with either another polypropylene bag or sackcloth that is stitched or bound with manila rope to form a lid or “kilemba”. Transactions at farm level are more often than not conducted in this manner and at no point are goods weighed or measured using scales.

Some agricultural produce bought from farms (such as fruits and tomatoes) is transported in “loose” form to collection centres operated (normally hired) by middlemen and agents where it is repacked in preparation for sale at market. Given that the packaging undertaken is of the *lumbesa* kind, there is once again no adherence at all to Weights and Measures procedures.

2.3. WEIGHTS AND MEASURES PROCEDURES AT LARGE TRADERS COLLECTION POINTS

Large Traders collection centres by and large transact in accordance to weights and measures regulations. Given that such centres are normally located in or close to urban centres, goods are weighed using scales that are regularly calibrated by the WMA and consignments are bought according to weight.

Large traders generally work on profit margins that are modest in comparison to those made by middlemen (3-5% as opposed to 10%). The emphasis at this level is on volume transactions and ensuring that all sellers are treated as equitably as possible.

Therefore, payments to small producers (those with the ability to bring their own produce to town), agents and middlemen are made once a day with the exception being during high season when business is more active. At such times payments are made twice a day and a policy of advancing potential sellers' money to pay immediate transport costs and ease traffic congestion is employed.

In conclusion it would be accurate to say that transactions at this level are far more orderly and fair than at farm gate level and possibly even at market.

2.4. WEIGHTS AND MEASURES PROCEDURES AT MARKET LEVEL

From the relatively small markets in rural centres such as Iringa to the large traders markets in the capital city of Dar es Salaam, Weights and Measures practices are commonly used. This is in no small part due to the fact that such markets are in close proximity to WMA offices making the task of certification and the subsequent generation of revenues that much easier for the WMA.

WMA Assizers make regular visits to market traders (ie. food and agricultural produce vendors) as well as a number of retailers and wholesalers who often operate in and around marketplace environs. Market places in urban centres tend to operate more efficiently given the increased level of trade activity undertaken in these areas and the fact that consumers are often more aware of their rights. That is not to say that all sales are undertaken according to the law.

On occasion goods purchased during retail sales will be taken to a neighbouring or adjacent scale in order to be weighed. This is a violation, as all traders should operate their own working scales. Furthermore, the WMA markings on certified weights are difficult to see and the same goes for the weighing scales. Unless customers ask, traders feel no compulsion to prove that their equipment has been verified and is accurate.

Finally and regardless of weights and measure procedures, prices for commodities at market are extremely negotiable making it impossible for consumers to know whether they are getting a fair price on produce bought without having prior knowledge of prices of the said commodity at either wholesale or farm level.

Weights and Measures procedures although well known by market traders and market masters are not publicised at all and on occasions when they are, not done in a manner that would be considered easy or convenient for customers.

2.5. AGRICULTURAL GOODS MOST AFFECTED BY LACK OF W&M PROCEDURES

With the exception of tea, coffee, sugar and paprika, most agricultural crops sold at farm level are not impacted by WMA procedures. The reason for this exception is in some part due to the fact that the principal buyers of these crops from small-scale producers are involved in value addition processes in the rural areas and are contractually bound to small producers who perform as outgrowers.

Nearly all other crops produced by small farmers including maize, onions, tomatoes and rice suffer from the scourge of the *lumbesa*, a practice that is favoured by middlemen or agents, who are able to coerce constrained farmers into selling their produce on terms that favour the buyer.

2.6. NEGATIVE TRADING PRACTICES BY SMALL SCALE FARMERS

It must be noted that small-scale producers, perhaps in reaction to unfair trading practices, are guilty of possibly illegal and certainly unfair practices themselves. For example, agricultural produce bought mostly by the *debe* at farm level is sometimes “packed out” with stones and twigs in an attempt to maximise profits. On other occasions such as in the sale of tomatoes, rotten or sub standard products are nestled in the middle of a *debe* where they avoid detection by the buyer.

When selling to large traders, small farmers and middlemen have to undertake their transaction using weighing scales. Furthermore, in the event that produce containing irregularities such as stones, twigs and moisture are presented for sale, the large trader will compensate by deducting an amount (agreed to by both parties) to be paid to the seller.

In the long run, such practices merely increase the level of distrust amongst farmers and middlemen thus damaging trade relations. Small-scale farmers must be encouraged to pay more attention to quality control in order to counter this practice although currently they have little incentive to do so.

2.7. QUALITY ISSUES

The over packing of agricultural produce into *lumbesa* inevitably results in a proportion of the consignment being damaged which has an overall effect on the selling price at market. However there does exist at market, a trade for damaged tomatoes (known as *masalo* and sold to restaurants for making puree) and rice (broken rice sold to makers of *vitumbua*, a sweet rice based bun) thus ensuring that the trader does not make an outright loss on damaged goods.

3. MANUFACTURE, TAX AND STANDARDS

3.1. LOCAL MANUFACTURE

There are five primary bag manufacturers in Tanzania namely;

- Raffia Bags based in Dar es Salaam
- Pee Pee Bags based in Tanga
- Victoria Polybags based in Mwanza
- S.S Bahkresa based in Dar es Salaam
- Mohamed Enterprises based in Morogoro.

The Bag Manufacturing sector in Tanzania is very healthy. In the case of polypropylene bags, imported raw materials (pp granules) are zero rated provided they come into the country in their primary form. A number of manufacturers use very modern technology and produce items that compete and compare favourably with imports. In the case of Pee Pee and Raffia Bags, manufacture is carried out according to ISO certified standards.

Bags are being imported with less frequency, as price competitive locally manufactured bags are now readily available. By purchasing locally many former importers are able to avoid the problems associated with importation of goods into Tanzania, which can be time consuming, and subject to corrupt practices on many levels.

Manufacturers who choose to make bags for the domestic agricultural produce market produce bags in a variety of sizes, depending on demand. In some instances, bags are produced that could carry loads of more than 170kgs and more. Interviews with manufacturers have revealed that such extra large bags are made only on order. Whilst acknowledging that some of these bags may be used as *lumbesa*, the manufacturers have to react to the demands of their clients.

The largest bags manufactured by local manufacturers are ostensibly intended for either agricultural use or for the transportation of charcoal although manufacturers cannot say what they are ultimately used for. There are no standard sizes in terms of dimension. For example, a 50kg bag intended for the packing of tea would be a different size from a 50kg bag for maize.

As a result of increased local competition, some local manufacturers have chosen to concentrate on specific products for specific markets. For example Raffia Bags focuses on meeting demand for export sales to Mozambique and producing cement bags for domestic consumption.

3.2. IMPORTS

Imported bags used for agricultural products originate mostly in China and to a lesser extent South Africa. Locally manufactured bags are generally 10% cheaper than comparable imported bags, which ordinarily makes importation a disincentive. However, if an unscrupulous importer can avoid the 20% import duty and 20% V.A.T, levied on such products, the exercise may be deemed worthwhile. But given that the largest buyers of such products are formal businesses, purchase from local producers makes more sense as sales are conducted legally, receipts are issued and in some cases, favourable credit terms can be negotiated.

3.3. TAX IMPLICATIONS ON AGRICULTURAL PRODUCE PACKAGING SECTOR

According to traders, taxes levied on agricultural produce transported across the country are still numerous and vary radically from region to region. For example in the southern regions of Tanzania such as Mtwara and Lindi, local government authorities apply a number of taxes on produce in some cases, up to 25% more than stipulated by the law. The same authorities are insistent that traders comply and appear to operate independently of nationally laid down directives and taxes. It may be that this is a situation that Central Government turns a blind eye to as remittances of funds to local government authorities in the south is poor.

Several attempts were made to obtain listings of applicable taxes, duties and Cess', to determine and quantify their impact on trade. No listing was available from Central Government. The consultant was advised to write to the Minister of Local Government in Dodoma to obtain a list of applicable Cess'. It is clear though that traders plying a particular route are well aware of the applicable Cess on that route and will calculate them into their prices.

District level Cess, wherever they apply, are paid against the sack. The assumption is that all produce is packed according to the specifications presented in the Weights and Measures Act of 1982. However, given that most *lumbesas* of produce carry at least 30% more produce than allowed by law, this can be viewed as revenue denied to local governments. If one considers the prevailing bag weights for maize and rice, as above, the Districts are losing half of the revenue due to them.

At market level, an average market fee of Tshs 500 is applied on each bag of produce that enters. Fruits that are traded at the Kariakoo market attract a fee of Tshs350 per tenga. Again over-packed bags entering market result in further losses to municipal authorities. The widespread tax evasive practices seen in the trade of agricultural produce is made a great deal easier by the fact that hardly any bags of agricultural produce in transit to market are marked with descriptions of either product or weight in order to better facilitate tracking and inspection.

3.4. ILO STANDARDS

Agricultural produce within market places across Tanzania is, more often than not, transported manually. Without the use of trolleys or wheelbarrows, loads of up to 160kgs(*lumbesa*) are carried on the shoulders of porters who earn up to 2000Tshs per consignment in the main market of Kariakoo in Dar es Salaam and considerably less in rural markets. Porters can earn between 6-10 000 Tsh a day carrying the over-weight bags. This is a good income when compared to average monthly salaries of 40 000 Tsh. It should be remembered that a porter's career might only be three years, after which he is not capable of carrying the heavy bags.

According to ILO standards and in particular the Maximum Weight Convention of 1967, "no worker shall be required or permitted to engage in the manual transport of a load which, by reason of its weight, is likely to jeopardise his health and safety". Despite the fact that the United Republic of Tanzania is a member of the ILO, this is a convention that would be very difficult to uphold in current circumstances, as the practice is so widespread and ingrained.

3.5. TANZANIA BUREAU OF STANDARDS

In examining the role of the Weights and Measures Agency in Tanzania, one must also take into account the role of TBS, another quasi Government body involved in metrology related matters. As the custodians of National Standards in Tanzania, TBS are responsible for (amongst others)-

- The formulation and promulgation of Tanzania standards in all sectors of the country's economy. Priorities have been established for national standards in the fields of textiles, leather, agriculture and food, chemicals and engineering.
- To improve the quality of industrial products for both exports and local consumption through various certification schemes like pre-export/ pre-import inspection and testing and quality system registration.
- To undertake calibration of industrial and commercial measuring equipment and instruments in the areas of mass, length, volume, energy and temperature.

TBS seeks to inculcate awareness of Standardisation and Quality Assurance by industry and commerce in order to enhance the availability of good and safe products for the Tanzanian public.

Like the WMA, TBS falls under the auspices of the Ministry of Trade and Industry and there are synergies between the two agencies.

4. TRADE ISSUES

4.1. INTERNATIONAL TRADE

The International Trade of agricultural commodities in Tanzania is dominated by a handful of Trading Houses who control over 90% exports. Amongst the largest of these organisations is Export Trading Limited.

Export Trading is the principal buyer of maize in Tanzania. A regionally focused agricultural produce trading company, E.T. Ltd purchased 180,000 tonnes of Tanzanian maize in 2003 (The next largest buyer was the Government of Tanzania who purchased 30,000 tonnes). Export Trading have spent the past ten years building an extensive network of collection and trading centres all across the country, where they receive a broad range of agricultural commodities including rice, maize, beans and pigeon peas.

Whilst acknowledging that the most obvious obstacles to international trade for small producers are related to economies of scale, other barriers include a lack of organisation through associations and an inability to speculate on prices and thus maximise returns. Affordable and accessible storage facilities could help improve small-scale producers to realise more for their produce by speculating and thus drawing them into the realm of free market practices in the trade for agricultural produce but for the time being, most small producers are simply unable to compete in the international market place.

4.2. RATES

The Regional Agricultural Trade Expansion Support (RATES) program is designed to increase value/ volume of agricultural trade within the East and Southern Africa region and between the region and the rest of the world. RATES focuses on the development of commodity specific regional trade initiatives including coffee, maize and pulses, cotton and textiles, livestock, oilseeds and beans.

Through the RATES centre, a Nairobi based regional trade centre, the program will support partner organisations and other trade institutions to improve regional capacity to move commodities across borders and internationally to have a direct impact on improving regional food security.

Amongst the objectives of the RATES project goal to expand and sustain regional agricultural trade flows through strengthened human institutional capacities are:

- The expansion of agricultural trade in selected sub sectors
- Increasing institutional capacity to sustain agricultural trade
- Expanding private sector contribution to regional trade initiatives.

Expected results of the RATES project include:

- An overall increase of 35% in the volume/value of trade in selected commodities over the next 5 years
- Agricultural trade policies, regulations and procedures harmonised
- The creation of an efficient regional market information and intelligence system
- Improvements in the ability of commodity traders to advocate trade policies and access trading opportunities.

In 2002/ 2003, RATES undertook market assessment and baseline studies for seven countries namely Ethiopia, Kenya, Malawi, Uganda, Tanzania, Zambia and Zimbabwe. The overall result of this initiative was a regional maize trade policy paper that identified many constraints to trade. Amongst them were:

- Export bans
- Export restrictions
- Cumbersome import procedures
- Non-standardised and high import tariffs in the region
- Non-standardised quality standards

Such prevailing conditions make it difficult for large traders to operate in regional trade. Furthermore, interviews with large traders revealed that there are other barriers to the export trade including the interventions of the Tanzania Bureau of Standards, whose procedures and requirements are both burdensome and unrealistic.

4.3. REGIONAL TRADE

It is acknowledged that small-scale agricultural producers working within the specific areas identified by DAI PESA cannot aspire to fulfilling international trade demand at this stage. However, there is every likelihood that such producers can increase sales in regional markets.

Preliminary investigations in the trade of perishable commodities such as pears have revealed that many small producers are indeed sacrificing income by not taking value added measures themselves. Amongst their constraints are poor post harvest packaging and handling as well as poor marketing and trade negotiation skills. In some areas such as Ilula (in the southern highlands) local tomato farmers have sold produce to traders from as far as Nairobi who will buy by the *lumbesa* and often re-pack at farm level into wooden boxes (that allow produce to be transported and handles with minimum damage). Farmers have thus far not taken the initiative to pack the tomatoes in boxes themselves.

There is clearly a need for interventions at this level in order to bring about improvements in producer organisations and farm technologies utilised that would assist small-scale farmers in improving quality standards as well as packaging practices and procedures.

5. IRINGA CASE STUDIES

A field visit was undertaken to Iringa in order to determine the applications of Weights and Measures legislation and practice in a context other than Dar es Salaam.

5.1. THE WMA IN IRINGA

The WMA in Iringa is manned by a staff of three persons, covering an enormous area with a population of 1.5 million people, the majority of whom are engaged in small-scale agriculture. The WMA has little impact on transactions undertaken at farm level. Hampered by inadequate funds to carry out their operations and limited by poor access to transport –the office has one vehicle, the WMA is aware of weights and measures violations in the region but is unable to take the necessary action.

Like all other WMA offices, revenue is generated through the calibration of scales and the certification of weighing machines (including petrol pumps and weighbridges). All receipts are then remitted to Head Office and in the case of Iringa, approximately 60% is sent back to cover the operational costs of running the office. This system is not optimal and has a detrimental effect on the ability of the office to carry out its duties, as the office remains constrained through the lack of financial resources. Whilst it is possible that the WMA Dar es Salaam branch could become self-sustaining given the amount of potential revenue generating activities that exist in the capital city and its surrounding environs, for branch offices such as Iringa and those located in even more remote area, self-sustainability and self financing is a tall order.

The WMA Iringa office view themselves as a service provider and not a business entity. As such they feel obliged by the nature of their task to cover the entire area under their jurisdiction and take their services everywhere they are required. In many instances, this is not a cost effective exercise. Remote villages do not present much in the way of revenue generating services, but in order to comply with the law, they must be visited.

The WMA office has been involved in meetings of the Regional Consultative Council (RCC), a committee made up of various branches of local government. At the last meeting of the RCC held in August 2003, it was recommended that every village in the region establish a marketing centre to serve small-scale farmers better. It was also suggested that by enforcing existing by-laws and creating new ones where necessary, local authorities would be able to clamp down on violations of the law that result in small farmers being penalised during commercial transactions.

Although the issue of the over-weight *lumbesa* is well known within local and Central government, TRA and the law enforcement agencies, the WMA in Iringa contend that awareness of the law on Weights and Measures is very poor. As a result any sudden attempts to enforce laws that have been inadequately publicised and therefore understood would be counterproductive. An intervention by the Minister of Agriculture or even the Prime Minister would go some way to highlighting this illegal practice, but in the long run,

a more methodical approach to public awareness would be required. The WMA Head Office and the CEO acknowledge and support the need for an extensive Public Awareness Campaign.

The DAI PESA office in Iringa has established good and close contacts with the local WMA branch and is exploring a range of interventions that could be undertaken with a mind to improving commodity subsector operations that would improve conditions for small-scale agricultural producers.

5.2. TRANSPORT OF AGRICULTURAL PRODUCE

Agents and middlemen who buy produce from small farmers in order to sell on to regional traders or to transport directly to market in Dar es Salaam usually hire vehicles to transport the produce to market. In some instances owners of such vehicles play the dual role of middleman and transporter. Produce is often transported on dedicated vehicles of 3, 5, 7 and 10 tonnes. A good agent will be able to make a 10% margin on each consignment bought and sold at market, an activity that takes less than 48 hours. Predictably this form of trade is both lucrative and competitive.

Nearly all vehicles involved in the transport of produce to market are over-loaded. In instances where vehicles use the highway network, and particularly as they approach Dar es Salaam, transporters operating vehicles of over 5 tonnes are legally required to pass over weighbridges. The WMA are aware that transporters have developed a variety of methods to avoid detection and prosecution, but are unable to intervene as the weigh-bridges do not fall in their ambit of operations. Whilst the WMA is responsible for the inspection and verification of weighbridges on the highways, the operation of these facilities fall under the auspices of Tanroads and the Ministry of Works. The priority of these bodies is the maintenance and condition of the highways and not the anomalies of rural agriculture trade and so the detrimental effect of conducting such trade (and the inherent losses to the Tanzania Revenue Authority) continues unabated.

- At certain points prior to arriving at the weigh-stations at Ubungu or Kibaha, goods are transferred from the overloaded vehicle to *Fuso's* (vehicles of less than 5 Mt). The *Fuso's* charge around 10,000 to 20,000 shillings for transport, depending on the market centre. This remains economically viable for the transporter/middleman who has by this point made an adequate profit.
- Vehicles are sometimes loaded so that most of the weight load is located at the front end of the chassis. The weighbridge in this instance would weigh on the rear axle and as such not reflect the full weight carried by the truck.

It must be noted that the above practices relate to the avoidance of prosecution for overloaded vehicles and not to avoidance of taxes or Cess. Furthermore there can be little doubt that corruption is a mitigating factor in the illegal transportation of goods that occurs on the highways.

5.3. THE ROLE OF TCCIA IN WEIGHTS AND MEASURES PROCEDURES

The Tanzania Chamber of Commerce, Industry and Agriculture is a nationwide Business organisation providing a range of services and products to its members. Small-scale farmers are not generally members of TCCIA but this does not mean that the Chamber takes no interest in matters affecting the trade of agricultural produce.

The TCCIA office in Iringa has recently had meetings with the WMA Agency and the DAI PESA representative in Iringa during the course of which constraints on small-scale farmers and the WMA were discussed and debated. Amongst the observations made on the part of producers were weaknesses in the organisation of farmers associations and an ignorance of WMA regulations and procedures. On the part of the WMA it was felt that as a result of working well below its own expectations (due to the constraints imposed on WMA), the agency was unable to monitor crop movements in the region resulting in the loss of revenue to the WMA, Central Government and ultimately small-scale farmers. The TCCIAs positive role in promoting this dialogue should be noted.

The future of TCCIA in Iringa is in agriculture. Industry in the region is negligible and commerce is a weak meaning that there is very little work that TCCIA does in these sectors. The same is probably true in Mbeya and other regions. TCCIA is well placed to intervene and assist on issue of data collection and the compilation of statistics. As a result of its participation in the RCC, TCCIA has received a request from the District Commissioner in Njombe and is working on the translation of WMA legislation as well as procedures and regulations for the benefit of local small-scale farmers. This indicates that perhaps in the future TCCIA can assist farmers in the field of advocacy.

6. CONCLUSIONS

6.1. CAN WMA BE SELF-SUSTAINING AND SELF-FINANCING?

Currently, the WMA operates on funds obtained from the following sources:

- Moneys received from the provision of goods and services in fees and commissions.
- Moneys voted by Parliament for the purposes of the Agency.
- Moneys borrowed commercially or otherwise.

As an executive agency, WMA has the power to enter into contracts in its own name as well as to borrow money, acquire, hold and dispose of immovable property. Whilst this implies a measure of autonomy in financial planning decisions, the reality is somewhat different.

In re-classifying the WMA as an Executive Agency, the Government was able to relieve itself of the financial burden associated with the upkeep of the body. As a result, the WMA is expected to generate income from its own operations and be self-financing. However, the Minister for Industry and Trade,

“after consultation with the Minister responsible for finance may determine, in respect of each Agency, the amount of revenue which shall remain the property of the Agency and the amount of revenue which shall be treated as public funds and credited to the Exchequer account”.

DAI PESA in Iringa have already identified the need for the WMA to retain a greater portion of its revenue in order to fund its activities and expand its services. Interviews with the WMA in Dar es Salaam and Iringa have indicated that the amount of money retained by the Agency is in the range of 60-46%. Either way the effect is that the Agency cannot legally retain a sufficient portion of its revenues that would allow it to be financially self-sustaining and is rather susceptible to the whims of Central Government and the Treasury in particular.

There can be no doubt that as a regulatory agency, the WMA is playing catch up to the private sector in Tanzania. A liberalised business environment has meant that Executive Agencies have had to learn how to perform their new functions at a rapid pace.

According to the law, an Executive Agency is expected to observe the following principles:

- To provide its services to its customers and the public in the most efficient and effective manner

- To manage its affairs in a businesslike and cost effective manner and in accordance with the modern management practices and techniques and in particular to apply to its operations the best standards of financial management and accounting
- To ensure that its operations are designed for the provision of the best service to its customers and to maintain a high degree of responsiveness to their needs.

This has been difficult for the WMA, which currently struggles to perform its role. The task is made no easier when one considers that in order for the WMA to perform at an optimum, other branches of Government must also do so. For example, in the case of imported goods, before coming under the scrutiny of the WMA, goods must first obtain import clearance from the Ministry of Finance and then go through Tanzania Bureau of Standards procedures. These processes take a long time and impact on the efficacy of WMA in delivering efficient services to its clients.

Whilst a concerted effort from all branches of Government is required in order to improve the ability of the WMA to perform its role, it must also be recognised that such actions will enhance the ability of other branches of government to increase revenue generating opportunities.

Another approach may be to consider WMA as a facilitator of revenue, rather than a primary revenue generator. If one notes the lost revenues to government on over-weight bags-in some instances government is only collecting half of the revenues due to it-as a result of WMA not being able to perform their role and enforce compliance with existing legislation, then it may be appropriate to resource the WMA properly and as a result hugely increase government revenues. It can be expected that revenue potential of properly collected taxes and Cess would be far higher than revenue from calibrating scales.

This would also solve the dichotomy of the WMA both calibrating scales (in what appears to be the largest form of revenue generation for WMA) and ensuring that scales are calibrated. A better approach may be that WMA does no calibration themselves, but instructs owners to get certified calibrators to do it. WMA could then generate income from licensing certified calibrators and be able to penalise the traders for non-compliance.

7. EFFECT OF CURRENT WMA PRACTICES ON SMALL-SCALE PRODUCERS

One could convincingly argue that small-scale producers have suffered terribly as a result of free market and globalisation policies that have been in effect since the early 1990's. Certainly many of the farmers interviewed during the course of this study have said they have seen no direct benefits accruing to them as a result of such policies. On the contrary, many believe that the free market is a harbinger of worse days to come as the economic and political climate in Tanzania continues to favour those engaged in large-scale farms within their sector.

Many small farmers do not formally record any data regarding crop production which makes a detailed analysis challenging, but even working from felt senses and memory, small producers will insist that they are getting very small and diminishing prices for their produce and, on average, are showing greater losses every harvest.

At the same time, many small producers feel that they are losing out at the expense of middlemen (also known as walagunzi) who have a greater understanding and control of the free market forces.

Proper application of Weights and Measures will improve revenue generation through the value chain, as there will be clarity of process and disparate margins will even out.

7.1. WHAT DO SMALL-SCALE FARMERS NEED TO DO?

There is a definite need for farmers to organise themselves into groups or associations along sector and area specific lines. This has been done in Paprika and sugar and should be extended to other products. Producer associations are perhaps the best bodies through which improvements in current practices and procedures can be enhanced and new methodologies can be introduced. The existence of farmer groupings may also give rise to village or area based marketing centers that would allow access to scales and storage facilities for the farmers. An entrepreneur in the area could establish a marketing centre on a commercial basis. Revenue could be generated from charges for scale use and storage. Given the large discrepancies in bag weights it would be in the farmer's interest to ensure that his bags are weighed and that he is getting a price based on weight rather than volume.

8. RECOMMENDED OPTIONS FOR PESA ASSISTANCE

The project should lobby Government, highlighting the potential of WMA to be a significant revenue generator if properly resourced. If accepted and acted upon by Government this would give WMA the impetus to enforce change of the current unlawful practices.

In order to achieve this, the project should lobby government highlighting:

- The current revenue loss; and,
- the potential proper enforcement of WMA legislation has for raising producer income levels.

Should government decide to properly resource the WMA, then the project should:

- Strengthen the ability of WMA to **conduct a Public Awareness Programme** on appropriate Weights and Measures legislation and the role and services of WMA. This may include a simple poster campaign in markets, later extended to other points of convergence like rural collection centers.

Irrespective of the government's approach to resourcing the WMA, the project should:

- Develop a program with WMA, TCCIA and farmer groupings to **highlight the advantages of use of scales** at producer level. The existence of farmer groupings may also give rise to village or area based marketing centers that would allow access to scales and storage facilities for the farmers. An entrepreneur in the area could establish a marketing centre on a commercial basis. Revenue could be generated from charges for scale use and storage. Given the large discrepancies in bag weights it would be in the farmer's interest to ensure that his bags are weighed and that he is getting a price based on weight rather than volume.