

The World Bank Group

**THE REPUBLIC OF ZAMBIA
DIAGNOSTIC TRADE INTEGRATION
STUDY (DTIS)**

Annexes

Draft prepared for the Enhanced Integrated Framework

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ANNEXES

Annex 1: An Overview of the Implementation of the 2005 Action Matrix

Objectives	Recommended Actions	Technical Assistance Needs	Funding Agencies	Priority (1- 3) Timeframe	Status of Implementation
Trade Policy					
Policies Directly Affecting Exports					
Develop Export Strategy	<ul style="list-style-type: none"> Finalize drafting and approval of Trade Policy and Export Strategy 		ITC	1,2005,Q4	<ul style="list-style-type: none"> CTI policy finalized. Export strategy not done
Enable exporters to obtain inputs at world prices	<ul style="list-style-type: none"> Streamline operating procedures for the duty drawback scheme; set targets for reimbursement of duties Improve management of bonded warehouse and RIB Operationalize procedures manual and operating guidelines prepared by MCTI prior to implementing the newly revised Export Processing Zone Act 	<p>Paper on best practices</p> <p>Implementation of AYSCUDA will address this issue</p> <p>TA required to make Act operational.</p>	IF Trust Fund	1, 2005 Q4	<ul style="list-style-type: none"> Done
			IF Trust Fund	2, 2005 Q4	<ul style="list-style-type: none"> ASYCUDA has been implemented
				1, 2005 Q4	<ul style="list-style-type: none"> The EPZ Act ceased to exist 1st January, 2007 when the ZDA Act No. 11 of 2006 came into effect. The ZDA Act incorporates issues to do with EPZs under the section on MFEZ.
Policies Directly Affecting Imports					
Tariff Reform	<ul style="list-style-type: none"> Establish the Tariff Commission 	TA required to make the Commission operational	IF Trust Fund	2, 2005 Q4	<ul style="list-style-type: none"> Not done
Allow for contingent protection to address	<ul style="list-style-type: none"> Implement the new legislation on safeguards consistent with the 	Training to develop public/private capacity		3, longer-term	<ul style="list-style-type: none"> Not done

disruptive import surges as tariffs are lowered	WTO, COMESA and SADC Agreements	to effectively use safeguards legislation			
Trade Facilitation					
Customs Modernization					
Upgrade equipment and infrastructure of ZRA	<ul style="list-style-type: none"> Support investment in the customs infrastructure and equipment at key border posts and improve performance 	Assess needs and prepare TA projects		2, 2006	<ul style="list-style-type: none"> Commenced and is still in process
Integrate border agencies	<ul style="list-style-type: none"> Introduce integrated software management system for all border agencies; develop a single processing and payment window for all border agencies 			2, 2006	<ul style="list-style-type: none"> In process
Reduce border clearance times while ensuring integrity and increased compliance	<ul style="list-style-type: none"> Undertake a Cargo Time Release Study to quantify the time involved in customs clearances Strengthen the training unit in ZRA to train staff and the private sector including clearing agents and forwarders Request TA to look at the performance of AYSCUDA on the tax elements Review and improve transit procedures Simplify procedures for consolidated shipments Establish fast track clearance for 'blue chip' traders Strengthen the capacity to implement post clearance audits Introduce and develop advance declaration processing Decentralize the clearance of goods ZRA to establish and make publicly available performance indicators on effectiveness and efficiency 		IF Trust Fund	1, 2005 Q4 3, medium-term 3, medium-term 2, 2006 2, 2006 1, 2006 2, 2006 2, 2006 3, longer-term 1, 2006	<ul style="list-style-type: none"> Was undertaken Continuous process Done, continuous process Done, continuous process Done (Customs Accredited Client Program) Done, continuous process Done Done, continuous process through the Research and Development Unit

Implement trade facilitation agreements	<ul style="list-style-type: none"> • Harmonize legal and regulatory framework to conform to the Kyoto Protocol and SADC and COMESA agreements 			3, longer-term	<ul style="list-style-type: none"> • Done
Transportation Logistics					
Improved regulatory framework for transport/transit logistics/efficiency/costs	<ul style="list-style-type: none"> • Revise the Transport Act to remove the quantitative criteria for licensing commercial haulage; liberalize foreign air carrier landing rights; separate criteria for regulating passenger vs. freight transport on roads • Set-up legal framework for licensing of clearing agents, bonded warehouses, terminal operators, and multimodal transport operators (and provide training) • Strengthen technical and enforcement capacity of staff involved in transport regulation and administration • Transpose international transport agreements to national legislation 			2, 2006 2,2006 2,2006 2,2006	<ul style="list-style-type: none"> • Done, continuous process • Done, continuous process • Done, continuous process
Reduce transit costs	<ul style="list-style-type: none"> • Prepare a transit strategy 			1, 2006	<ul style="list-style-type: none"> • Not done
Accelerate investment in new transport infrastructure	<ul style="list-style-type: none"> • Develop a program to promote public-private partnerships for financing investments • Facilitate investments in transport and inter-modal infrastructure and (bonded) warehouses 	PSD to plan priorities and incentives		3, longer-term 3, longer-term	<ul style="list-style-type: none"> • In the process with support from PPP unit • In process e.g. development of Chipata intermodal dry port
Augment capacity in transport industry	<ul style="list-style-type: none"> • Organize training in regulations, logistics and financial management, financial management, and marketing for providers of logistics services, including road transport operators and clearing agents. 			1, 2006	<ul style="list-style-type: none"> • In process

Safety & Quality Standards					
Improve standards setting procedure, administration and international conformity	<ul style="list-style-type: none"> Amend the Standards Act (1994) to separate standards testing from the regulatory functions of ZABS 	Legal and regulatory reform particularly for Mount Makulu and FDA	EDP9	1, 2005 Q4	<ul style="list-style-type: none"> In process through UNIDO-WTO Project
Foster a private testing and certification industry	<ul style="list-style-type: none"> Create regulatory regime: licensing, taxation, etc. Provide incentives for a competitive private testing lab market Develop multi-year transition plan for commercialization of public testing labs Train staff in public and private sectors 		EDP9	2, 2006 2, 2006 2,2006	<ul style="list-style-type: none"> In process through UNIDO-WTO Project
Reorganize and strengthen ZABS	<ul style="list-style-type: none"> Coordinate standards set by FDA, Ministry of Agriculture, etc. Develop system of standards conforming with international criteria 		EDP9	1, 2005 Q4 2, 2006	<ul style="list-style-type: none"> In process through UNIDO-WTO Project
Trade Capacity and Policy Coordination					
Trade Institutions					
Improve the technical skills of officials with trade related responsibilities	<ul style="list-style-type: none"> Create a trade policy analysis unit in the MCTI. Expand and train trade staff in and outside government working on trade policy issues 			1, 2005 Q4	<ul style="list-style-type: none"> TPA not created. Training-continuous process New expanded structure was approved but not implemented
Increase understanding and the level of discourse on trade issues	<ul style="list-style-type: none"> Use NWGT to commission applied economic research from Zambian researchers/institutions collaborating with international researchers (such as the WBI, the ACBF) Support establishment of Zambian Institute for Policy Analysis and 	Support agencies outside government working on trade issues		2, 2006 2, 2006	<ul style="list-style-type: none"> Not done Was established but the institution does not have a

	Research (ZIPAR) with a dedicated trade economist				Trade Economist
Facilitate intergovernmental coordination of trade-related policies and programs	<ul style="list-style-type: none"> Incorporate the trade issues explicitly and fully into the interagency policy formulation and implementation mechanism created in the aftermath of the Livingstone Forum (ZBC, PSD Steering Committee, PCU) Closely coordinate export promotion and PSD strategies 	Support interagency activities with increased capacity to the Secretariat	JITAP	1, 2005 Q4 1, 2005 Q3	<ul style="list-style-type: none"> Done Done
Deepen public-private dialogue on trade-related issues	<ul style="list-style-type: none"> Strengthen ZBF as an umbrella mechanism that can bring together the various private sector associations so that they speak with a common voice on common interests Promote NWGT link with ZBF, ZBC, PSD Steering Committee, and PCU; organize new sub-committees along sectoral lines Include customs clearance and trade facilitation issues as a standing agenda item for NWGT. 	<p>Strengthen dialogue between APEX body and various member groups</p> <p>Support for technical staff and training</p>	DFID, USAID	2, 2005-6 1, 2005 Q3 1, 2005 Q3	<ul style="list-style-type: none"> Not done Done Done
Mainstream trade into development policy	<ul style="list-style-type: none"> Ensure trade policy is firmly integrated in the forthcoming Poverty Reduction Strategy Program (PRSP) and National Development Plan (NDP) 	Prepare background notes or chapters on trade for PRSP and NDP		1, 2005 Q4	<ul style="list-style-type: none"> Done (FNDP and SNDP)
Market Access					
Effective Participation in trade negotiations	<ul style="list-style-type: none"> Improve understanding of Zambian trade negotiators and the private sector of WTO and other trade agreements. Prepare negotiating position papers for WTO, EPA, and other negotiations Identify products 	Train staff to support MCTI in their participation and implementation of trade agreements		2, continuous	<ul style="list-style-type: none"> Done, continuous process

	and markets of export interest				
WTO Government Procurement Agreement	<ul style="list-style-type: none"> Evaluate the relative costs and benefits of implementation 	Consultants for study		3, 2006	<ul style="list-style-type: none"> Not done
Compliance with TBT Agreement	<ul style="list-style-type: none"> Strengthen the Notification and Enquiry Points 	Training and equipment required		2, 2006	<ul style="list-style-type: none"> Partially done through JITAP, CBPSD, Swedish TBT Mentorship Program and being done through the UNIDO WTO Project.
Ensure effective implementation of COMESA and SADC FTA	<ul style="list-style-type: none"> Press for reduction of the non-tariff barriers to trade and liberalization of rules of origin Develop regional supply chains based on comparative advantage in collaboration with SADC and COMESA 	Support increased cooperation between SADC and COMESA regional secretariats		1, 2005 Q3 2, 2006	<ul style="list-style-type: none"> Continuous process Not done

Annex 2: Zambia's seed exports, 2011

No.	Number of OICs	Crop	Destination	No. of OICs	Qty (Kg)
1	596	Maize	Botswana	16	486,255
			Kenya	304	9,052,021
			Malawi	4	160,000
			Rwanda	1	40,000
			Swaziland	30	503,250
			Tanzania	166	4,928,350
			South Africa	15	209,420
			Zimbabwe	60	2,237,600
Sub- totals					17,616,896
2	79	Tobacco	Mozambique	38	456
			Malawi	1	12
			Tanzania	14	168
			South Africa	26	312
Sub- totals					948
3	11	Sorghum	Kenya	7	200,000
			Malawi	2	700
			Tanzania	2	37,950
Sub- totals					238,650
4	7	Soyabeans	Tanzania	7	34,775
Sub- totals					34,775
Totals	693			693	17,891,269

Source: SCCI, 2011.

Annex 3: Summary Description of the SADC Harmonized Seed System

The SADC Seed Regulatory System is based around following three components:

SADC Variety Release System – this component is intended to provide for a shorter period of testing and release of new varieties. Instead of the current system of testing new varieties for two to four years in each Member State, any variety released in two Member States will be able to be marketed in the rest of the countries with similar agro-ecological conditions.

SADC Seed Certification and Quality Assurance System – this component introduces the use of common terminologies, standards, procedures, seals, labels and a certification scheme.

SADC Phytosanitary Measures for Seed System – this component promotes the safe movement of seed with respect to pests and diseases.

Taken together, the SADC system provides a common set of standards and procedures for seed trade intended to avoid repetitive national testing and otherwise make seed trade easier, faster, and cheaper. Under the first part of the system, SADC intends to create a Regional Seed Catalogue and Seed Variety Database. Seed varieties listed in the Catalogue will be able to be sold in all Member States without restriction. Any seed variety that has been registered in two countries and has valid Distinct, Uniform, and Stable (DUS) and Value for Cultivation Use (VCU) test results may submitted to SSSN for approval and entry in the SADC Seed Catalogue.

With respect to quality assurance, SADC is creating a universal labeling system for different generations of seed based on field and laboratory standards for minimum isolation distance, maximum percent of off-types, minimum number of inspections, minimum germination percent, minimum pure-seed by weight, and maximum percent moisture. As of 2008, SADC had developed detailed specifications for 18 types of cash and food crop seed. While seed can still be traded through other channels, seed traded under the SADC System will need to be listed in the Seed Catalogue and must comply with all labeling requirements.

Seed traded under the SADC System will also need to comply with specified phytosanitary measures. Under this component, the SADC Seed System aims to create two universal lists of quarantine pests including one list of pests that require control when seed is traded between Member States and another list of pests for when seed is traded into a SADC country from outside the region. The lists are intended to include only pests that are of economic significance, are not common in the SADC region, and are seed borne.

According to SADC, this approach to intra-regional trade means that testing and quarantine measures for seed are only required for diseases which are not common in all Member States. Moreover, since all participating SADC countries will be testing for the same diseases, retesting of seed consignments on arrival in the importing country can be reduced and (in principle) eliminated. Since fewer pests will need to be checked at entry points, clearance and entry of consignments is expected to be faster. In the case of seed being imported from outside SADC, once the seed has gained entry to the region it can be traded to any other participating country without further SPS or other quality testing.

As part of the SADC Harmonized Seed Regulatory System, pilot projects funded by the Swiss Agency for Development and Cooperation are now being implemented in Malawi, Swaziland, Zambia, and Zimbabwe by the Food, Agriculture, and Natural Resources Policy Network (FARNPAN) of SADC. In

addition to support for seed producing communities in each country, FARNPAN is conducting an audit of each country's seed certifying capabilities including their ability to implement measures of the plan related to varietal testing and release, seed certification, and SPS protection.

Annex 4: Charter for Cross-Border Traders

Basic rights and obligations for traders and officials at the border

1. All individuals shall be able to cross the border without verbal or physical abuse or harassment, including but not limited to sexual and gender-based violence.
2. Traders shall be processed at the border in an efficient and timely manner without discrimination. A receipt must be provided to the trader for any payment made and the payment properly recorded.
3. Only officials of the approved agencies are present at the border and all border officials wear uniforms or ID badges that allow the identification of their respective agency.
4. Physical checks of traders must be recorded with the reason and outcome provided. Female traders have the right to receive a physical check by female officials in a private but regulated and accountable environment.
5. All duties, fees and taxes and the basis for their calculation are publicly available at the border. Any change to duties, fees and taxes must be publicly announced at the border, with reasonable time for traders to prepare, before their application. No unpublished fees or charges should be demanded at the border.
6. Documentary requirements should be clearly stated and publicly available at the border. Any change in documents required must be publicly announced at the border with reasonable time for traders to prepare before implementation. Simplified procedures should be applied to small traders.
7. Traders should be aware of their rights and obligations when crossing the border. Traders must present required documentation and pay appropriate duties at the border and to obtain a receipt for any payments made to an official. Traders shall not attempt to bribe any official to avoid payment of duties or obtain preferential treatment in any way, including avoiding queues.

With the support of the international community, governments commit to

1. That by [agreed time] these basic rights and obligations governing cross-border movement of goods and people are clearly stated in the local language and visibly apparent at all border crossings.
2. By [agreed time] at every border post there is at least one agent that has received gender awareness training. All senior officials at the border have received gender awareness training by [agreed time]. Ensure that 50% of officials at any border post have received gender awareness training by [agreed time].
3. At all border posts traders have recourse to an independent and confidential mechanism to register violation of any of these basic rights. Female traders must be able to register the violation of any basic rights with a female staff.
4. Apply strict disciplinary measures against officials found to have violated the rights of a trader.
5. Support organizations of informal cross-border traders in disseminating information on these rights and obligations and in delivering advice and information to enhance the capacities of the traders.
6. Continue to improve the quality of infrastructure at all border crossings to provide an open and safe environment for traders, with attention to the specific needs of women traders, and appropriate facilities for officials to undertake their work.
7. Improve the quality of data collected at all border posts on small traders, including the number passing through the border each day and the nature of the goods carried.

Annex 5

Table 1 lists the variables identified in the dataset.

In **Table 2**, we show how the number of observations has evolved over time. Note that after 2005 re-export transactions are no longer reported separately.

Table 1: Variables

Variable name	Type	Format	Variable label	Unique values
y	int	%8.0g	Year	13
f	str13	%13s	Trader identifier (firm)	40276
fl	str1	%1s	Exports, Imports, Reexports	3
hs	str6	%6s	Product at HS-6 Digits	5516
d	str3	%9s	Origin/destination	212
d1	str3	%9s	First origin, final destination	205
h	str6	%9s	Consolidated HS code	4542
v	double	%12.0g	Values in USD	119860
v_zk	double	%10.0g	Values in Zambian Kwacha	1263425
q	double	%12.0g	Net weight in kgs	115149

Table 2: Years covered, observations per year, trade flows

Year	Exports	Imports	Re-exports	Total transactions
1999	3,967	40,367	930	45,264
2000	3,144	65,516	1,483	70,143
2001	3,293	67,573	1,548	72,414
2002	3,993	73,196	2,152	79,341
2003	3,458	73,910	1,139	78,507
2004	3,965	83,281	1,074	88,320
2005	5,497	94,761	782	101,040
2006	7,161	104,394	0	111,555
2007	10,154	117,632	0	127,786
2008	11,798	121,913	0	133,711
2009	12,724	113,603	0	126,327
2010	12,209	139,883	0	152,092
2011	9,099	176,400	0	185,499
Total	90,462	1,272,429	9,108	1,371,999

We apply the following definitions to compute entry and exit statistics:

- **Entry** at time t : a firm/product/(firm product)/(firm destination)/ (firm product destination) combination that does not exist in year $t-1$ but exists in year t
- **Exit** at t : a firm/product/(firm product)/(firm destination)/ (firm product destination) that exists in year $t-1$ but does not exist in year t
- **Incumbent** at time t : a firm/product/(firm product)/(firm destination)/ (firm product destination) that exist in both years $t-1$ and t
- **Re-entry**: a firm/product/(firm product)/(firm destination)/ (firm product destination) that reappears after initial failure (reappears at time t , does not exist at time $t-1$ but existed before $t-1$)
- **New entry**: a firm or trade relationship that does not exist before time t but appears in year t
- **Temporary exit**: a relationship that exits at time t but reappears again
- **Failure**: a trade relationship that exits after first year of exporting and never reappears
- **Survivor** : a firm/product/(firm product)/(firm destination)/ (firm product destination) that exists at time t and $t+1$ but did not exist at time $t-1$

Annex 5 Table 3: Top-10 Zambian export products and their share

1999-2003			2004-2007			2008-2011		
HS code	Average share	Product description	HS code	Average share	Product description	HS code	Average share	Product description
740311	48%	Refined copper and copper alloys, unwrought.-- Cathodes and sections of cathodes	740311	40%	Refined copper and copper alloys, unwrought.-- Cathodes and sections of cathodes	740311	48%	Refined copper and copper alloys, unwrought.-- Cathodes and sections of cathodes
810510	9%	Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap.	740919	15%	Copper plates, sheets and strip, of a thickness exceeding 0.15 mm.-- Other	740319	11%	Refined copper and copper alloys, unwrought.-- Other
810590	6%	Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap.- Other	260300	7%	Copper ores and concentrates. Copper ores and concentrates.	740919	10%	Copper plates, sheets and strip, of a thickness exceeding 0.15 mm.-- Other
170111	4%	Cane or beet sugar and chemically pure sucrose, in solid form.-- Cane sugar	810590	7%	Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap.- Other	260300	5%	Copper ores and concentrates. Copper ores and concentrates.
710310	2%	Precious stones (other than diamonds) and semi-precious stones, unworked or ungraded	740911	4%	Copper plates, sheets and strip, of a thickness exceeding 0.15 mm.-- In coils	810590	3%	Cobalt mattes and other intermediate products of cobalt metallurgy; cobalt and articles thereof, including waste and scrap.- Other

740911	2%	Copper plates, sheets and strip, of a thickness exceeding 0.15 mm.-- In coils	740811	3%	Copper wire.- - Of which the maximum cross-sectional dimension exceeds 6 mm	740811	2%	Copper wire.-- Of which the maximum cross-sectional dimension exceeds 6 mm
740811	2%	Copper wire.-- Of which the maximum cross-sectional dimension exceeds 6 mm	520100	2%	Cotton, not carded or combed. Cotton, not carded or combed.	170111	2%	Cane or beet sugar and chemically pure sucrose, in solid form.-- Cane sugar
710399	2%	Precious stones (other than diamonds) and semi-precious stones, whether or not worked or graded but not strung, mounted or set; ungraded precious stones (other than diamonds) and semi-precious stones, temporarily strung for convenience of trans--	170111	2%	Cane or beet sugar and chemically pure sucrose, in solid form.-- Cane sugar	740323	1%	Refined copper and copper alloys, unwrought.-- Copper-nickel base alloys (cupro-nickel) or copper-nickel-zinc base alloys (nickel silver)
520100	1%	Cotton, not carded or combed. Cotton, not carded or combed.	740200	2%	Unrefined copper; copper anodes for electrolytic refining. Unrefined copper; copper anodes for electrolytic refining.	240110	1%	stripped-Tobacco, not stemmed
60240	1%	Other live plants (including their roots), cuttings and slips; mushroom spawn.- Roses, grafted or not	240110	1%	stripped-Tobacco, not stemmed	260500	1%	Cobalt ores and concentrates

Annex 5 Table 4: Export flow survival and RTAs

VARIABLES	(1)	(2)	(3)
natural logarithm of export value at the initiation of spell	-0.025429**	-0.025704**	-0.026583**
	(0.011)	(0.011)	(0.011)
number of supplier serving the same product to a destination market	-0.017134***	-0.017177***	-0.016894***
	(0.003)	(0.003)	(0.003)
number of destination serving by a firm at the beginning of a spell	0.006830***	0.006955***	0.006092***
	(0.002)	(0.002)	(0.002)
number of products serving by a firm to the same destination market	-0.000933***	-0.000960***	-0.000926***
	(0.000)	(0.000)	(0.000)
multiple spell dummy	-0.027339	-0.027566	-0.027950
	(0.020)	(0.020)	(0.019)
natural logarithm of quantity of initial transaction	-0.003435	-0.003401	-0.003256
	(0.009)	(0.009)	(0.009)
natural logarithm of destination market population	0.029500	0.028801	0.132468
	(0.043)	(0.042)	(0.081)
natural logarithm of destination market GDP	-0.079512	-0.078480	-0.214787*
	(0.064)	(0.063)	(0.114)
1 for contiguity	-0.003678	-0.006367	-0.254725
	(0.150)	(0.149)	(0.235)
1 for common official of primary language	0.089603	0.090673	0.179003**
	(0.075)	(0.075)	(0.087)
1 for common colonizer post 1945	-0.086435	-0.085841	-0.107621
	(0.077)	(0.077)	(0.067)
natural logarithm of distance btw Zambia and destination country	0.197523	0.195063	-0.132507
	(0.160)	(0.159)	(0.190)
global economic crisis dummy, 1 at the end of a spell	0.454430***	0.524645***	0.523549***
	(0.049)	(0.031)	(0.033)
COMESA bloc dummy	0.024758	0.031177	-0.235427
	(0.129)	(0.133)	(0.203)
SADC bloc dummy	0.137076	0.148680	0.181879*
	(0.093)	(0.098)	(0.108)
eu28	0.134220	0.169187	0.139069
	(0.104)	(0.106)	(0.103)
SACU bloc dummy	0.118046	0.123963	0.303598
	(0.177)	(0.178)	(0.222)
gec x comesa		-0.060741	-0.081878
		(0.060)	(0.073)
gec x sadc		-0.074248	-0.073972
		(0.067)	(0.076)
gec x sacu		-0.057877	-0.046493
		(0.061)	(0.069)
gec x eu28		-0.295100***	-0.287380***
		(0.044)	(0.044)
Fixed effects			region
Observations	61,710	61,710	61,710

Clustered standard errors by destination country is in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Annex 5 Table 5: Export flow survival, traditional products

VARIABLES	(1)	(2)	(3)
natural logarithm of export value at the initiation of spell	-0.027192** (0.011)	-0.027453** (0.011)	-0.026512** (0.011)
number of supplier serving the same product to a destination market	-0.016904*** (0.003)	-0.016796*** (0.003)	-0.016634*** (0.003)
number of destination serving by a firm at the beginning of a spell	0.007216*** (0.002)	0.007226*** (0.002)	0.007146*** (0.002)
number of products serving by a firm to the same destination market	-0.000985*** (0.000)	-0.000971*** (0.000)	-0.000946*** (0.000)
multiple spell dummy	-0.023252 (0.020)	-0.024479 (0.020)	-0.021340 (0.020)
natural logarithm of quantity of initial transaction	-0.002885 (0.009)	-0.002559 (0.009)	-0.003606 (0.009)
natural logarithm of destination market population	-0.012737 (0.014)	-0.006203 (0.019)	-0.006011 (0.019)
natural logarithm of destination market GDP	-0.029237 (0.037)	-0.036242 (0.041)	-0.036571 (0.039)
1 for contiguity	-0.049712 (0.092)	-0.059453 (0.094)	-0.005837 (0.105)
1 for common official of primary language	0.133114* (0.079)	0.147150 (0.093)	0.103231 (0.070)
1 for common colonizer post 1945	-0.123170* (0.066)	-0.126807* (0.072)	-0.129241* (0.076)
log distance btw Zambia and destination country	0.055736 (0.054)	0.053049 (0.052)	0.110300 (0.087)
global economic crisis dummy, 1 at the end of a spell	0.455739*** (0.048)	0.456388*** (0.048)	0.457546*** (0.048)
eu28		0.058273 (0.067)	
copper, dummy for copper products	-0.105769* (0.062)	-0.104392 (0.069)	-0.102058* (0.062)
metals_excl_copper, dummy for metals except copper	-0.146257* (0.088)	-0.140016 (0.090)	-0.168700** (0.074)
agro, dummy for agro products	-0.051522* (0.027)	-0.053844* (0.028)	0.001516 (0.037)
eu28 x agro		0.019645 (0.045)	
eu28xx copper		0.060187 (0.100)	
eu28_metals x excl_cop		-0.024403 (0.058)	
rta, dummy variable for SACU, COMESA, SADC			0.099705 (0.088)
rta x agro			-0.095590** (0.043)
rta x copper			-0.014114 (0.055)
rta x metals_excl_cop			0.049944** (0.022)
Fixed effects	product category	product category	product category
Observations	61,711	61,710	61,711

Clustered standard errors by destination country is in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Annex 5 Table 6: Export flow survival and previous exporting experience

VARIABLES	(1)/Baseline	(2)	(3)	(4)
natural logarithm of export value at the initiation of spell	-0.024187**	-0.024257**	-0.024159**	-0.024617**
	(0.010)	(0.010)	(0.010)	(0.010)
number of supplier serving the same product to a destination market	-0.016507***	-0.016520***	-0.016609***	-0.016541***
	(0.003)	(0.003)	(0.003)	(0.003)
number of destination serving by a firm at the beginning of a spell	0.011250***	0.011227***	0.011342***	0.011131***
	(0.001)	(0.001)	(0.001)	(0.001)
number of products serving by a firm to the same destination market	-0.000937***	-0.000937***	-0.000938***	-0.000930***
	(0.000)	(0.000)	(0.000)	(0.000)
multiple spell dummy	-0.149186***	-0.149125***	-0.149937***	-0.148681***
	(0.016)	(0.016)	(0.016)	(0.016)
natural logarithm of quantity of initial transaction	-0.002433	-0.002482	-0.002648	-0.002609
	(0.009)	(0.009)	(0.009)	(0.009)
natural logarithm of destination market population	0.010272	0.010242	0.011046	0.009896
	(0.024)	(0.024)	(0.024)	(0.024)
natural logarithm of destination market GDP	-0.068620	-0.068580	-0.069092	-0.067499
	(0.046)	(0.046)	(0.046)	(0.046)
1 for contiguity	-0.101354	-0.101125	-0.101054	-0.099966
	(0.124)	(0.124)	(0.124)	(0.123)
1 for common official of primary language	0.233369**	0.233226**	0.233982**	0.231289**
	(0.108)	(0.108)	(0.107)	(0.108)
1 for common colonizer post 1945	-0.253710***	-0.253585***	-0.254538***	-0.251944***
	(0.085)	(0.084)	(0.084)	(0.085)
log distance btw Zambia and destination country	-0.058577	-0.058529	-0.058934	-0.058464
	(0.050)	(0.050)	(0.050)	(0.050)
gec, global economic crisis dummy	0.460670***	0.460607***	0.460875***	0.459994***
	(0.046)	(0.046)	(0.045)	(0.046)
copper, dummy for copper products	-0.058577	0.013690		
	(0.050)	(0.033)		
metals_excl_copper, dummy for metals except copper	0.460670***			-0.069126
	(0.046)			(0.045)
agro, dummy for agro products			-0.092222***	
			(0.030)	
previous regional exporting experience dummy	-0.116099***	-0.115958***	-0.121112***	-0.120506***
	(0.019)	(0.020)	(0.018)	(0.019)
previous product exporting experience dummy	-0.205106***	-0.205085***	-0.216741***	-0.193554***
	(0.028)	(0.029)	(0.028)	(0.025)
prev_reg x exp_copper		-0.002503		
		(0.049)		
prev_prd_exp x copper		-0.002420		
		(0.052)		
prev_reg_exp x agro			0.036040	
			(0.028)	
prev_prd_exp x agro			0.064271	
			(0.042)	
prev_reg_exp_metals x excl_cop				0.029355*
				(0.017)
prev_prd_exp_metals x excl_cop				-0.096149**
				(0.044)
Fixed effects	product category, region	product category, region	product category, region	product category, region
Observations	61,711	61,711	61,711	61,711

clustered standard errors by destination country is in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Annex 6

A.1 Not all NTMs are bad...

Contrary to tariffs, NTMs do not apply only to imported goods. They may apply either to imported goods only, or to both imported and domestically-produced goods, depending on their type. For instance, whereas a QR will apply only to imported goods, a technical regulation will typically apply to both imported and locally-produced goods, since otherwise it would run afoul of GATT Article III (national treatment).

NTMs apply to products, not to processes. Thus, an environmental regulation that prohibits dumping toxic effluents in a river as part of the production process is not an NTM, even though it may affect trade flows by raising the production costs of the domestic producer. There is thus a logical inconsistency in the MAST classification's treatment of domestic subsidies and regulations, since subsidies are included on account of their potential effect on competition with imported products, whereas domestic regulations are not. The reason for this inconsistency is that including all domestic regulations on production in the list of NTMs would extend its scope to the point where everything ought to be there, at which point it would become unmanageable. The upshot is that regulations may be trade-relevant but nevertheless not included in NTM inventories.

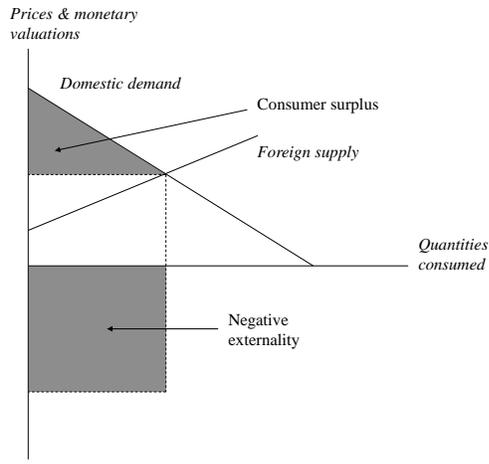
Not all non-tariff measures are bad, and approaching them only from the angle of trade and business costs would lead to wrong choices. Any society needs regulations to protect local and global public goods such as public health or the environment, and the fact that some of those regulations may increase business costs or reduce trade does not make them illegitimate or contrary to WTO rules.

Legitimate NTMs must be imposed only in response to what economists call a "market failure" such as a negative externality. The argument is illustrated for the case of a consumption externality. Suppose that diesel engines emit toxic particles unless a regulation imposes the presence of particle filters in the exhaust. Panel (a) of Figure 1 illustrates the situation prior to the imposition of a regulation, with all diesel cars imported. The grey triangle in the upper part is "consumer surplus". The grey rectangle in the lower part measures the "negative externality", i.e. the cost in terms of public health imposed by toxic emissions. The height of the rectangle is the cost per unit consumed (per km traveled by owners of diesel-powered cars), and the base is the use diesel-powered cars.

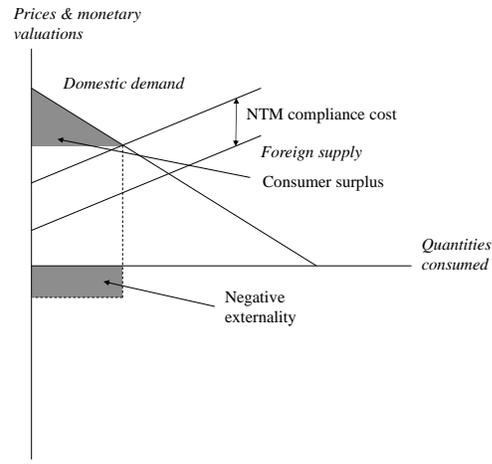
Panel (b) illustrates the situation after the imposition of a regulation mandating the use of particle filters. The cars are more expensive, which shifts the foreign supply up by the compliance cost reduces purchases of such cars. Total use goes down, which reduces consumer surplus. If the analysis stopped there, the measure would be deemed a bad one, since, as illustrated, it has a strong trade-inhibiting effect. However, the negative externality on public health is reduced through two effects: (i) a direct effect which reduces the amount of toxic emissions per km traveled; this shows up as a reduced height of the rectangle below; (ii) an indirect effect which reduces the number of km travelled by diesel-powered cars (because they are now more expensive); this shows up as a reduced base of the rectangle.

Figure 1: The costs and benefits of a technical regulation

(a) Welfare before NTM



(b) Welfare after NTM



Source: Adapted from Beghin et al. (2011)

NTMs which do not constitute appropriate responses to market failures are non-tariff barriers (NTBs) and may run afoul of WTO rules. Thus, whether a regulation is WTO-consistent or not provides a convenient test of whether it is an NTB or not. GATT Article VII (concerning customs valuation), the WTO's Technical Barriers to Trade (TBT) and Sanitary and Phyto-Sanitary (SPS) agreements, and a number of rules on import-licensing procedures contain disciplines regarding NTBs. Their objective is to discourage "regulatory protectionism", based on three basic principles: (i) non-discrimination, (ii) transparency, and (iii) proportionality.

The SPS and TBT agreements recognize the right of member states to adopt regulations that potentially affect trade with other member states, but impose three types of disciplines on those regulations:

On the process of adoption of the measures and on their implementation:

On their proportionality to the objective sought;

On their necessity.

The first discipline covers transparency and nondiscrimination both by design (*de jure*) and through implementation (*de facto*). In clear, it requires that measures be "fair" in the sense of not encouraging national producers of a like product or altering competition. For SPS measures, it means that they should be based on scientific evidence.

The second discipline concerns the "proportionality" of the measures, which means that the instrument chosen to serve a non-trade objective like our health issue with diesel engines should be the least trade restrictive among available instruments. If a technical regulation is based on an international standard, there is a presumption that it satisfies the proportionality test.

¹ See Cadot, Maliszewska and Saez (2010).

Finally, the third discipline concerns the “necessity” of the measures, which should be needed to achieve a legitimate policy objective—a criterion we already discussed in terms of “market failure”.

A.2 ...But they should be of special concern when the domestic market is small

When the domestic market fits the extreme assumption of a perfectly competitive market, whether a given level of trade restrictiveness results from a tariff or a quantitative restriction is inconsequential—they have the same effect on domestic welfare.

However, when the domestic market is imperfectly competitive, non-tariff barriers implemented via quantitative restrictions (e.g. quotas, restrictive licensing, and prohibitions) are worse. At an equal level of import reduction, they reduce the importing country’s welfare more than tariffs; worse, if they are intended to protect domestic jobs, they can only fail to achieve the objective. This is particularly important for a country like Zambia where domestic production is unlikely to take place under competitive conditions.

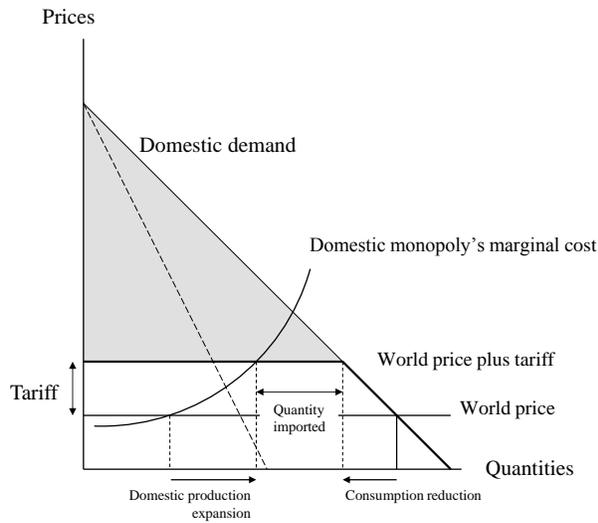
The damaging effect of a quantity-based instrument is illustrated in Figure 2 by comparing the effect of a tariff vs. a quantitative restriction (QR) inducing the same reduction in imports, in the presence of a domestic monopoly. By the fact that they reduce imports by the same amount, the tariff and the QR are comparable. In fact, a quantity-based econometric analysis would ascribe them the same ad-valorem equivalent, since they reduce trade by exactly the same amount. Yet, they have very different effects on the domestic market. Panel (a) shows that under a tariff the domestic monopoly is competing with importers, albeit on a tilted playing field since imports are taxed by the amount of the tariff. But that does not give back full monopoly power to the domestic producer, who cannot sell at more than the world price plus the tariff.

By contrast, panel (b) shows that with a QR, the domestic producer can let importers take their fixed share of the market, and then behave like a monopoly on the residual demand, allowing him to (i) restrict output and (ii) charge high prices. The resulting price is higher than under the tariff; worse, the domestic producer uses the protection conferred by the QR to charge high prices rather than hire more employees (since maintaining a high domestic price calls for output and employment restriction, not expansion). Thus, the QR penalizes domestic consumers without creating jobs. It is a very inefficient protectionist device.

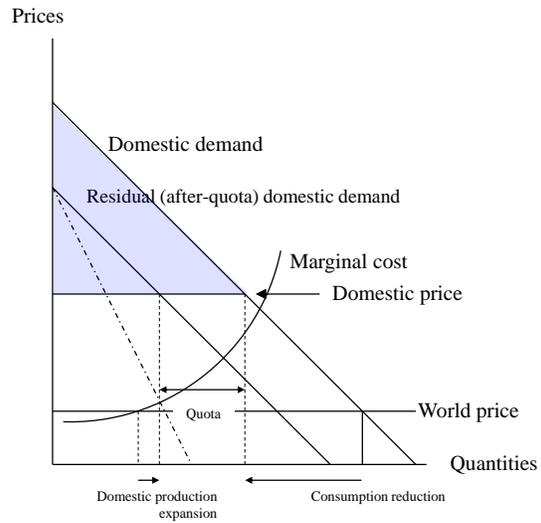
Figure 2

Why QRs are bad when there is domestic market power

(a) Tariff



(b) QR



The market power conferred to the local producer extends to importers, who align their price with the domestic producer's, in particular when, as is frequent in sub-Saharan Africa, the local producer is also the main importer. The principle illustrated in Figure 4 carries over to many quantity-based instruments (e.g. prohibitions, non-automatic licensing, or technical regulations that shut the market off to foreign producers) and to any market structure that is less than perfectly competitive. It is thus fairly general.

In addition to this mechanical effect, non-tariff barriers have a high propensity to be captured by special interests because they are un-transparent and complex. The design of technical regulations often requires expertise that can only be obtained from the industry itself (see our discussion of the steel roofings in the chapter on non-tariff-barriers). But then it is easy for the industry to influence the regulation's design to suit its needs, for instance by making it more difficult for foreign producers to comply. This can be both tempting and damaging in a small market where domestic producers can be forced to comply with certain regulations because all of their sales are domestic, whereas foreign producers may be altogether discouraged from selling on that market if the fixed cost of adapting products to local regulations cannot be recouped on long enough series. Dairy trade in the EAC is a case in point. Several EAC members have been periodically erecting non-tariff barriers in milk trade such as unrealistic protein contents, outright non-recognition of quality certificates from partner countries, and so on (see Jensen and Keyser, 2012).

Sometimes the regulation may not even be aimed at foreign producers, but can be manipulated by large producers to penalize smaller ones. Jensen and Keyser (2012) argue that this is the case with harmonized dairy regulations in East Africa. This is a particularly interesting case, as the harmonization of EAC dairy standards is based on international standards and has been supported by donors. However, the authors show that international standards are too tight for the capabilities of local producers and have the potential to stifle regional dairy trade, a significant source of income for small-scale producers and traders.

Annex 7

Figure A.1: Main Clients of Accounting Service Providers, %

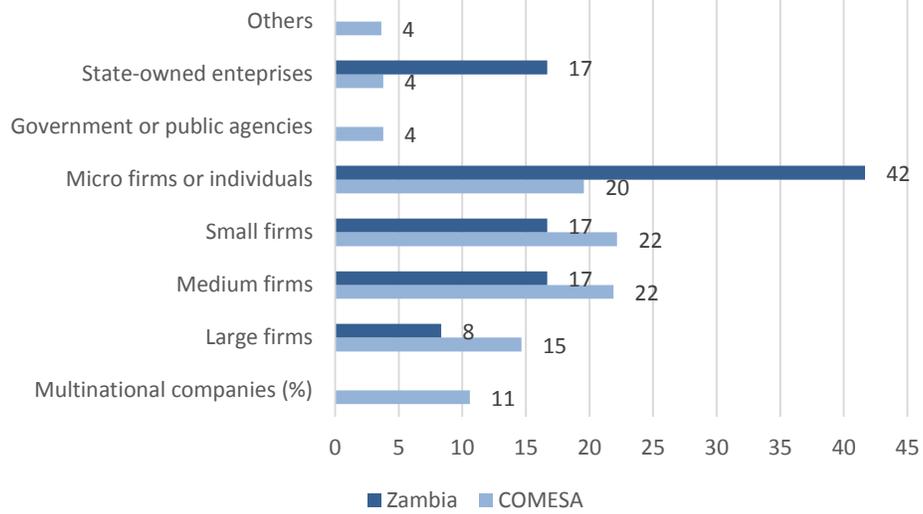


Figure A.2: Main Clients of Legal Service Providers, %

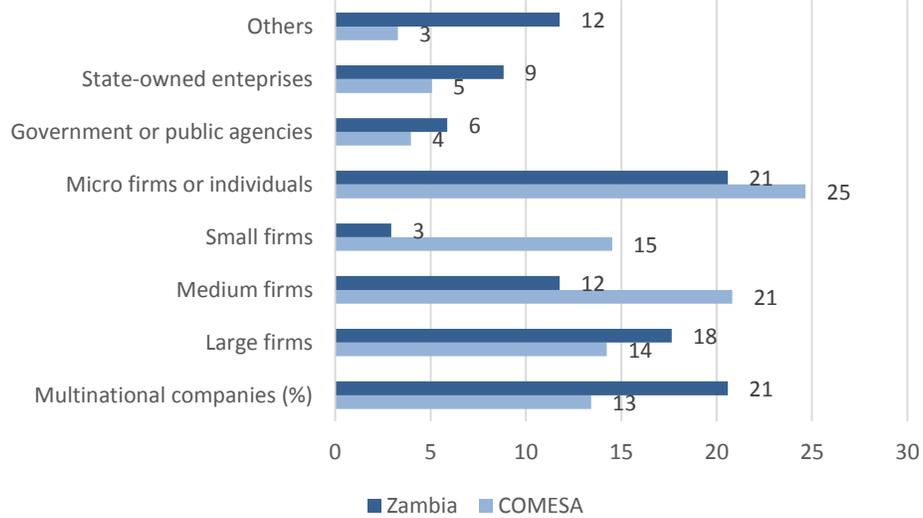


Figure A.3: Main Clients of Engineering Service Providers, %

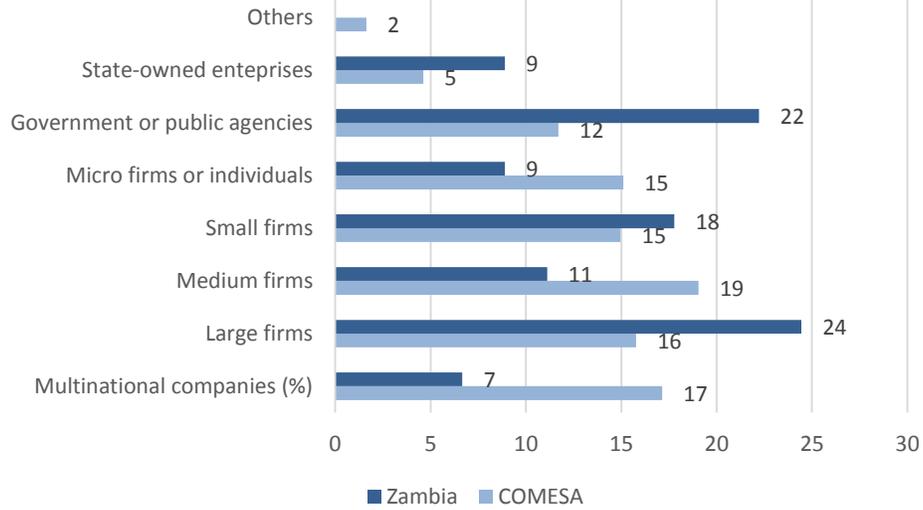
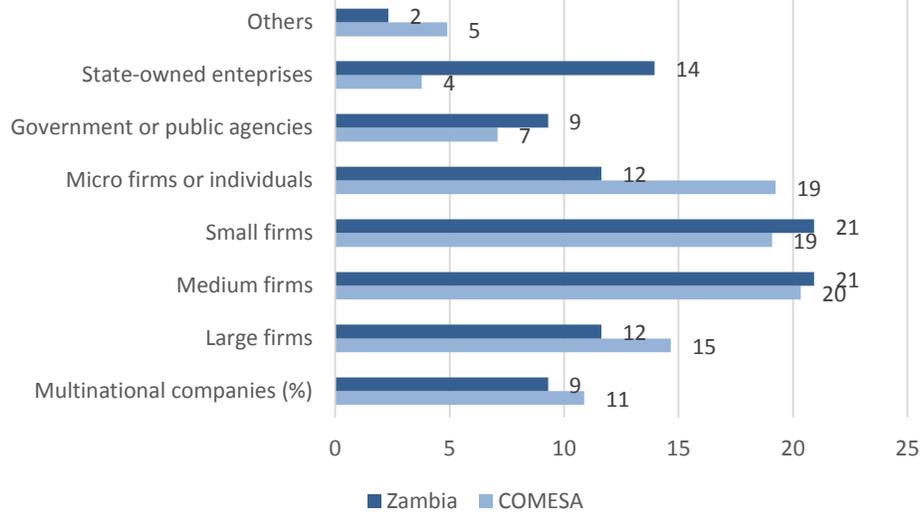


Figure A.4: Main Clients of Architectural Service Providers, %



Source: World Bank Surveys of professional services in COMESA, 2013

Figure A.5: Sources of Revenue for Accounting Service Providers, %

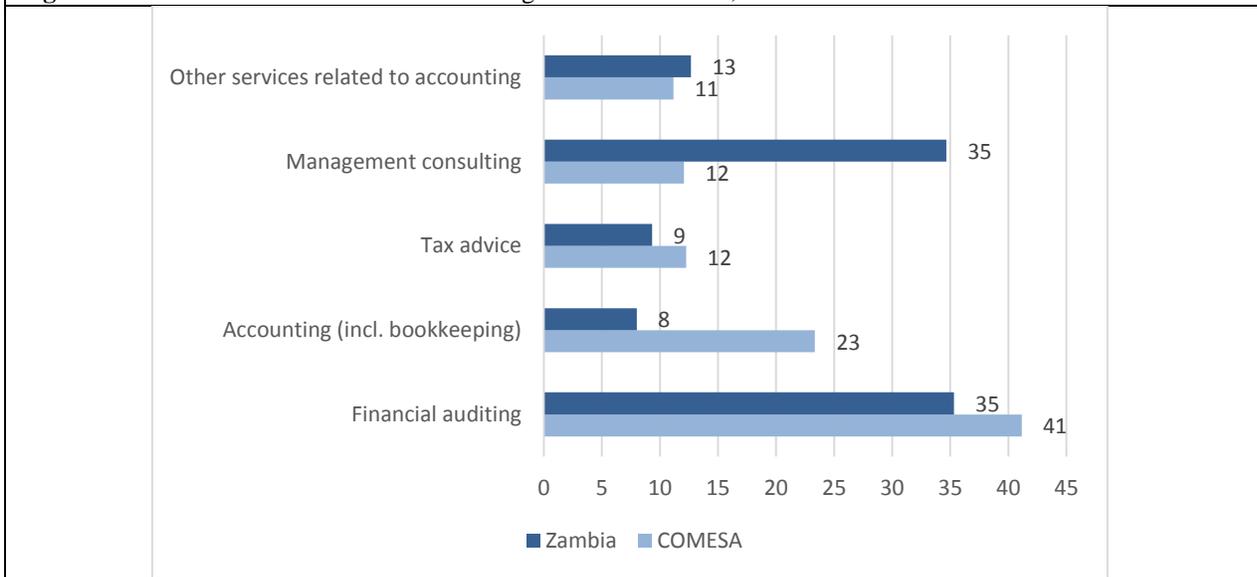


Figure A.6: Sources of Revenue for Legal Service Providers, %

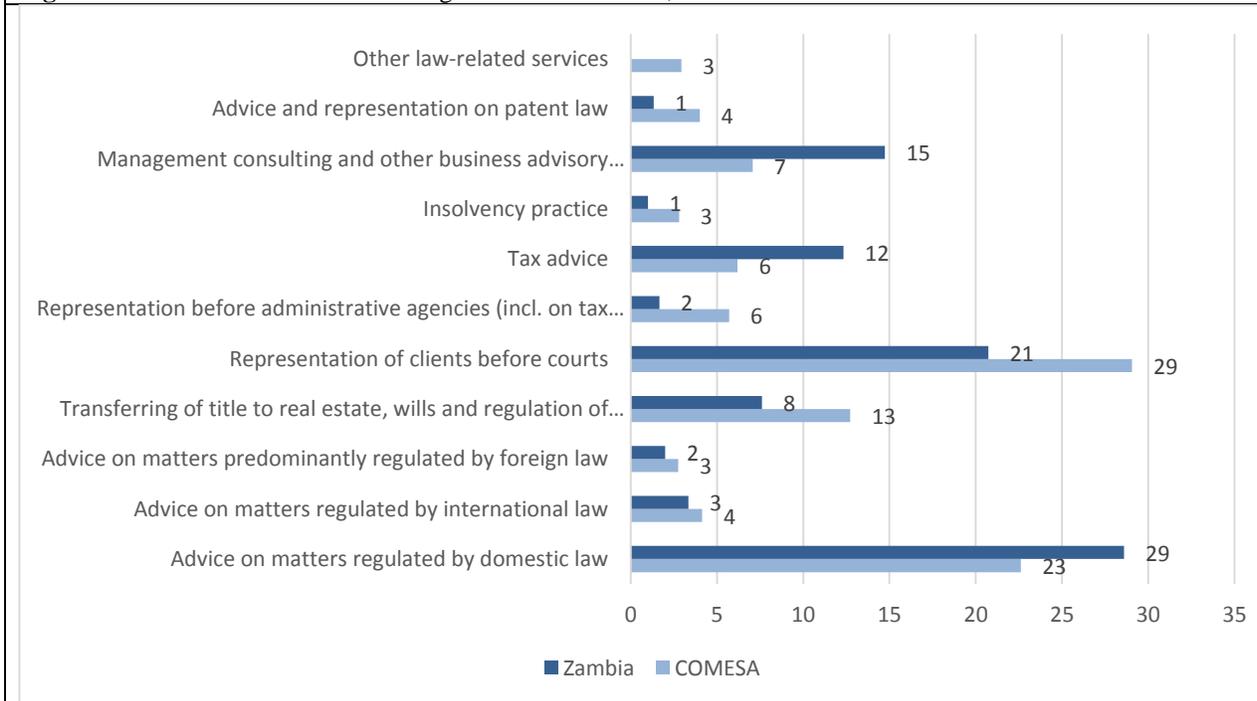


Figure A.7: Sources of Revenue for Engineering Service Providers, %

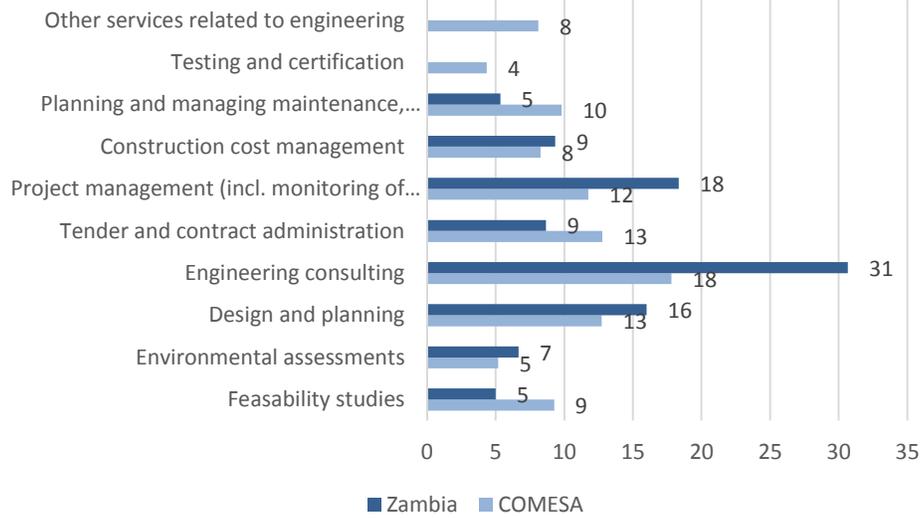
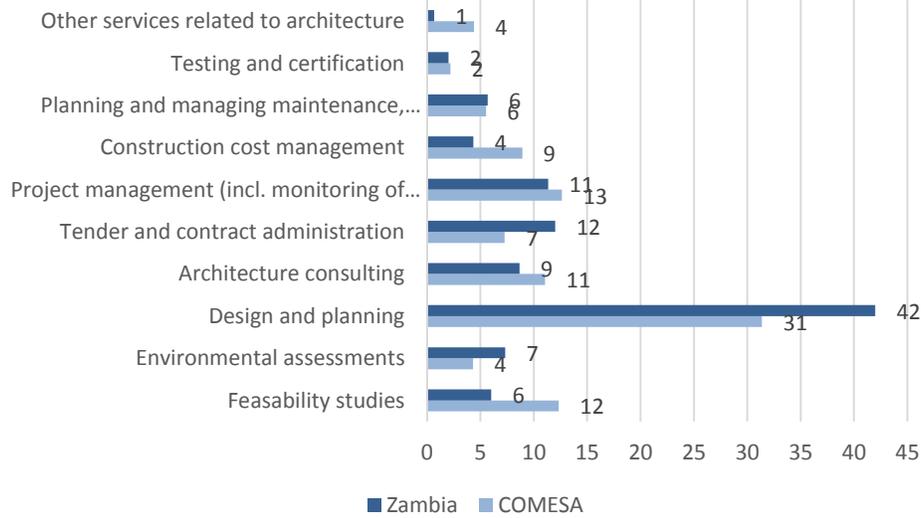


Figure A.8: Sources of Revenue for Architectural Service Providers, %



Source: World Bank Surveys of professional services in COMESA, 2013