

Foreign Trade and the Environment in Tanzania

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Abstract

International trade is regarded, in most growth models, as an "engine" of growth, which is capable of propelling the economies of participating nations to a stage of sustained growth. It is increasingly becoming evident, however, that trade has serious negative consequences on the environment of member countries. This paper analyses the influence of foreign trade on the environment in Tanzania, and focuses its attention especially on the reform period that started in the mid-1980s. The conclusion is that while international trade is undeniably beneficial to Tanzania, there is an urgent need to balance the benefits of trade with the costs it inflicts on the environment. Once the balance is struck, trade will lead to a sustainable development in Tanzania.

1.0 Introduction

In most growth models, trade is regarded as an "engine" of growth (Balassa, 1964, 1978; Helleiner, 1972). These models posit that, international trade has the potential to propel the growth of participating countries enabling them to consume commodities they would not consume in the absence of trade. In the Heckscher-Ohlin model, for instance, it is argued that as long as countries were endowed with either capital or labour, and so long as there were no trade restrictions, it would be advantageous for them to trade. However, the negative aspects of trade on the environment were not incorporated in these models. The negative aspects of the operationalization of these models were categorized only as externalities, and further analysis into the effects of these externalities with respect to the environment was not made. Even in the later developments in the international economics modern theories, environmental concerns are yet to be systematically incorporated.

Recently, however, there has been increasing awareness that trade could have detrimental effects on the environment of member countries. These in turn could have negative repercussions on their growth performance. Following the growth imbalances of the seventies and eighties, trade was in many circles regarded as one aspect of a country's means of recovery, and hence the trade sector was in many countries accorded due importance in the economic growth.

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Countries that have experienced economic hardships seem to implement, willingly or otherwise, the International Monetary Fund (IMF) and World Bank (Bank) sponsored Structural Adjustment Programmes (SAPs). A number of Eastern European as well as Latin American countries have embraced SAPs with differing levels of outcome. Since 1981 up to 1991, a total of twenty nine Sub-Sahara African Countries (SSA) have, in different periods, undertaken structural adjustment reforms (World Bank Report, 1994).

The economic pay-off in adjusting SSA countries has, like in other regions differed. The 1994 World Bank report shows, for example, that for some SSA countries that are considered to be success stories, the reforms have been able to register increases in annual GDP per capita, improvements in industrial growth, rises in export growth, significant rises in domestic savings and domestic investment, and decline in inflation rates (World Bank, 1994).

However, in the course of economic adjustment, most SSA countries have experienced negative pay-offs mainly in the social and environmental spheres. In Tanzania, for example, the adjustment process has recorded modest success in a variety of macroeconomic indicators ranging from improvement in GDP growth to inflation reduction (ERP II, 1990). Socially however, the adjustments have translated into untold social hardships with the poorer, and the most vulnerable sections of the population being negatively affected by the reforms. A number of researchers have pointed out the need for Less Developed Countries LDCs to carry on with the reforms that take into consideration the needs of the vulnerable groups, or in their terminology, the need to "adjust with a human face" (Cornia, 1987).

While many researchers have substantially dealt with the impact of SAPs on the social front, not much has been done on the impact of the reforms, particularly the international trade on the environment in Tanzania. This article attempts to address this seemingly important but somehow forgotten aspect. It further highlights the relationship between external trade and the environment in Tanzania. The efforts of the government to improve the balance of payments position included the trade liberalisation measures undertaken since 1986. These measures have in turn resulted into environmental concerns which need to be analysed.

2. Trade Liberalization and the Performance of Export Commodities

The dismal performance of the Tanzanian economy that was an aftermath of the economic crisis has been well documented (Lipumba *et. al.*, 1984). Even the efforts undertaken by Tanzania to address the crisis have been adequately documented (Lipumba *et. al.*, 1984 and Bagachwa *et al*, 1993). Researchers, however, generally agree that where the 1986 trade liberalization policies are concerned, they have to a

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considerable extent, been effective in improving export earnings to Tanzania. The major objectives of the recovery programme, where the export sector was (directly) concerned were to:

- (a) restore internal and external balances by pursuing prudent fiscal, monetary, and trade policies;
- (b) increase the output of food and export crops through appropriate incentives for production, improving marketing structures and increasing the resources available to agriculture (ERPI: 14).

For example, ERPII reports that the reforms which were implemented in the external sector helped to stimulate exports particularly those of non-traditional products and, together with increased external support, resulted in improvement of the foreign exchange situation (ERPII: 4). The restoration of internal and external balance was, according to the reforms, to be attained through various incentives.

2.1. Export Incentives

Export incentives combine all measures that increase the profitability of exports by reducing costs or increase revenue. Prior to the 1986 reforms, the government of Tanzania had few export incentives. The adoption of ERPI in 1986 introduced significant export incentives applicable to both traditional and non-traditional exports.¹

Where Non-Traditional Exports (NTEs) were concerned, the incentives aimed at providing exporters of NTEs with an automatic access to foreign exchange. The reforms also sought to provide exporters with access to partial equilibrium market exchange rate. Three broad export incentives were introduced in the areas of (i) exchange rate management, and (ii) trade liberalization and promotional measures.

Reforms in the exchange rate were geared towards: shifting of resources towards productive sectors and stimulation of exports. More important, there was need to look for an appropriate exchange rate capable of unifying both the official and the parallel exchange rates.

As a way of dealing with emerging shortages of consumer goods, the government saw it fitting in 1984 to introduce trade liberalization through the "own funds" imports. Several other programmes were made available as incentives for promotion of non-traditional exports. Among the major export incentives introduced were the export retention, and seed capital revolving schemes (Mbatia, 1993).

Whereas the retention scheme introduced in 1986 offered a retention of 50 percent to all non-traditional exports, the seed capital revolving scheme of 1985 aimed at

providing exporters of NTE an automatic access to foreign exchange out of own export proceeds.

Another export incentive introduced in 1990 was export credit guarantee scheme (ECGS), whose aim was to encourage financial institutions to provide pre- and post-shipment credit to exporters with less stringent conditions. A summary of the incentives and their intended impact on the promotion of NTEs is shown in Table 1.

Table 1. Product-wise Impact of NTEs Incentives

A: Petroleum Product	(i) 100% retention (ii) Sales tax exemption (iii) ECGS	(i) Enhance Export Profitability
B: Minerals	(i) 100% Retention (ii) ECGS	(i) Enhance Profitability
C: Manufactured Products	(i) 100% retention (ii) SCRS (iii) ECGS	(i) Easy access to foreign exchange (ii) Enhance export profitability
D: Miscellaneous (including forest products)	(i) 100% retention (ii) ECGS (iii) SCRS	(i) Enhance Profitability (ii) Promote Exports

Source: Survey Data.

Notes: ECGS = Export Credit Guarantee Scheme

SCRS =Seed capital revolving scheme

Various studies, including those by Bol (1993), Bagachwa (1993) and Mbatia (1993) show that boosting measures and other export incentives have proved to be an effective tool for promoting non-traditional exports. Though in general there appears to be a positive response to export incentives, examination on the impact of increase in traditional and non-traditional exports on the environment in Tanzania has not been made thoroughly.

3. Trade Liberalization and Environmental Concerns in Tanzania

Whereas there are indications that some traditional and non-traditional exports have significantly improved since 1986, it is unfortunate that in some commodities the increase in exports have been made at the expense of serious environmental degradation.

While it is accepted in many circles that trade liberalization pressures have resulted into environmental degradation the focus of this article is to assess the impact of foreign trade on primary products especially where agricultural and forest-based products are concerned.

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Agricultural and forest-based products were singled out for analysis because their promotion, either through prices or other incentives, has serious implications on the environment. Some of these products -- like for example forest-based products -- when depleted, affect the environment through deforestation. Intensive cultivation of crops like cotton and tobacco on the other hand have erosive effects on the soil. Furthermore, intensive cultivation of agricultural crops like tea and tobacco use fuelwood for the purpose of drying and curing respectively. This in turn, means the increased demand of fuelwood, with the end result of removal of vegetative tree cover.

Tables 2 and 3 indicate how some selected agricultural and forest-based products have responded to the export incentives in quantity and value terms, respectively.

Table 2: Exports of Selected Commodities: Quantities (Tones)

	1986	1987	1988	1989	1991	1992	1993	1994	1995
Cotton	31,259	42,233	51,670	54,367	44,661	72,797	61150	6000	70860
Tea	11,418	11,929	11,247	16,251	17,321	20,373	19750	21670	21600
Tobacco	7,699	7,398	8,208	7,125	7,067	12,706	10620	15400	17080
Timber	2,914	1,908	24,055	77,568	130,854	158,183	157,888	192,142	162,112

Source: Bureau of Statistics (1994), *Statistical Abstract: 1992*. Economic Survey, 1996.

Table 3: Trends in the Performance of Selected Forest and Agro-based Export Crops (US \$m).

Commodity/ year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Cotton	29.60	30.40	43.92	35.26	69.90	39.3	65.8	97.6	78.38	105.12	120.15	137.65	116.46
Tea	17.0	13.61	17.67	16.03	16.16	16.8	17.9	22.4	38.03	39.52	23/36	26.32	30.06
Tobacco	13.60	12.70	11.94	15.35	12.02	6.0	12.2	27.20	17.07	20.56	27.13	47.01	12.91
Forestry Products	1.14	1.89	4.48	6.13	8.00	11.64	8.94						

Source: (1) TET, (1993) Vol. 5, No. 3 and Vol. 5, No.4 pp 39-40.
(2) URT (1998) Hali ya Uchumi wa Taifa Katika Mwaka 1997

Export quantities of cotton show a consistently rising trend from 1986 through 1989 (Table 2), and declining thereafter. Export quantities of tea and timber on the other hand show a consistent increase throughout the period for which data has been available, with timber assuming quite an important position. Tobacco exports show a fluctuating trend, which might partly be explained by marketing and other bottlenecks.²

Table 3 shows among other things that, except for tobacco, all the other products registered a significant improvement in the value of their exports between 1986 and

1987. It is not certain which incentive or policy was responsible for this increase in the value of the products shown. Altogether, one cannot rule out the possibility of the increase in the value of the exports cited being caused by the 1986 introduced price incentives.

Table 4 shows that, the announced (nominal) producer prices for the selected agricultural based products increased significantly since 1986/87 season. However, the real producer prices for these products (Table 5) have shown some variations, except for the 1991/92 season, when the real prices for most of the commodities under consideration increased.

Table 4. Announced producer (nominal) prices for major export crops (T.shs/kg).

	1984/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	92/93	93/94	94/95	95/96	96/97
Cotton													
AR	8.40	13.00	16.90	19.45	22.35	28.00	41.00	70.00	60	80	1.20	200	168
BR	4.50	7.00	9.10	9.10	10.00	11.00	14.00	22.00	-	-	-	-	-
Tobacco													
Flue	25.20	37.90	49.25	63.00	75.60	90.00	117.00	245.00	221.28	253.00	353.30	955.48	551.31
Fire	16.10	23.30	30.30	39.00	48.75	70.00	91.00	168.00	234.20	286.00	373.22	-	-
Tea													
Green Leaf	4.10	4.90	7.60	9.90	13.40	17.00	28.00	40.00	45.00	45.00	50.00	55.0	

Sources (1) TET (1992) vol. 5, Nos. 1 and 2
 (2) URT (1998) Hali ya Uchumi wa Taifa Katika Mwaka 1997

Table 5: Announced producer (real^a) prices for major export crops shs/kg

	1984/85	85/86	86/87	87/88	88/89	89/90	90/91	91/92	
Cotton									
AR		29.9	36.0	35.4	31.1	27.9	28.0	30.7	45.1
BR		16.0	19.4	19.0	14.6	12.5	11.0	10.9	14.2
Tobacco									
Flue		89.6	105.0	103.1	100.9	94.5	90.0	87.5	158.0
Fire		57.2	64.6	63.4	62.5	60.9	70.0	68.1	108.4
Tea Green Leaf		14.6	13.6	15.9	15.9	16.8	17.0	20.0	25.8

Source: Tanzania Economic Trends (TET) Vol. 5 No. 1 & 2 (1992).

Taking into account the performance of production of these crops for the same period, we may conclude that, among other factors, producers respond to nominal (relative to real prices) price announcements for their production decisions (i.e., influenced by money illusion).

A rise in the export of timber means, among other things, that trees are cut and land is left bare. Some of the trees that are exported (e.g., teak or ebony) take long

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periods of time to mature. As these are cleared for export, the land is deforested and the desertification process is set in motion. This in turn, has another impact on the environment as catchment areas are destroyed, and hence the sources of water are negatively affected.

4. International Market Conditions and Concerns on Environmental Degradation

4.1. *The Tariff Structure in Tanzania's Major Trading Partners*

It has also been observed that the export of environmentally degrading products from Tanzania has partly been encouraged by the tariff structure in Tanzania's major trading partners.

The analysis on tariff structures in at least six major countries that form Tanzania's trading partners (i.e., UK, West Germany, Italy, Netherlands, United States of America, and Japan) show that the tariff structures in those countries actually favoured the production (in Tanzania) of environmentally degrading products. The tariff structures of all the six countries were not obtained. However, it was possible to get data for 3 countries only: USA, Japan, and India. Though not a member of Tanzania's six major trading partners, India imports a considerable amount of Tanzania's agricultural and forest-based products. Tables 6, 7 and 8, show the tariffs applied by USA, Japan, and India for some selected agricultural and forest products.

Table 6a: Trade measures applied to the US to agriculture, forestry

Commodity	Average Tariff	Range	Measures affecting production and trade
Tea	1.5	0.0 - 10.0	Production control, acreage allotment & price control programme
Tobacco	96.3	0 - 1,775	
Unmanufactured	46.5	0 - 536.9	
Manufactured	117.2	0 - 1,775	Labelling regulations Import quota, export subsidy.
Cotton Fibres	3.6	0 - 11.0	
Yarn	9.0	3.7 - 12.0	Export control of unprocessed timber.
Fabrics	13.3	3.4 - 41.6	
Wood & Cork	0.2	0-2.5	
- in the rough	6.7	0-20	
- wood based panels			

Source: GATT (1992a), Trade Policy Review : United States, pp. 230-236.

Table 7: Trade Measures Applied in Japan 1988-89 and 1991-92.

Commodity	1988-88	1991-92	Measures currently affecting trade & production.
Tea	n.a	n.a	State trading-exclusive production rights.
Tobacco:	5.2	5.2	
- unmanufactured	0.0	0.0	
- manufactured	8.4	8.4	
Cotton Fibres	0.0	0.0	Non ad-valorem tariffs, Export restraint to the EC
Cotton Yarn	6.2	6.3	
Cotton Fabrics	7.9	11.6	
Wood & Cork	4.1	4.6	Sanitary & phyto-sanitary regulations.
Wood & Cork in the rough	0.2	0.3	
Wood based pavels	13.4	13.4	Fire & building code.

n.a. = not available

Source: GATT (1992b) Trade Policy Review: Japan. pp 255-269.

Table 8: Trade measures applied in India to agricultural & forestry 1993

Commodity group	Import Tariffs (Average)	Range Imports	Measures affecting production and trade.
Tea	10	10-10	Domestic marketing controls; export licensing, price controls and export requirements.
Tobacco	85	85-85	Domestic marketing controls, floor price scheme, production quotas, export controls.
Cotton	45	45-45	Floor price scheme, export controls & requirements.
Logging	21	15-85	Import licensing (all consumer goods), budgetary support (grants & loans).
Forestry	44	10-85	Import licensing (all consumer goods); export requirements (shellac & most lacs); budgetary support (grant and loans)

Source: GATT (1992c) Trade Policy Review: India pp.260-266.

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Looking at the tariff structures in all the three countries in question, we find that they are all biased against processed or manufactured goods, i.e., cascading tariffs, in favour of unprocessed agricultural and forest-based products. Another observation is that average tariffs are low, and in some cases non-existent.

In Japan for instance, un-manufactured tobacco and cotton fibre had zero tariff rates in both 1988-89 and 1991-92. In Japan and the USA, average tariffs for wood and cork was roughly low and insignificant (see Tables 6 and 7). The impact of such a state of affairs is to encourage exports of those commodities favoured by low import tariffs in the importing countries.

These commodities which include tobacco and wood are among those that affect the environment negatively through their indiscriminate harvesting and expansion in production. Indiscriminate harvesting of wood poses a deforestation threat; while expansion of tobacco production entails clearing of more land, both for agricultural land and fuelwood for tobacco curing. Moreover, the un-manufactured state of these primary exports also deny the poor countries value-added in terms of employment. This has the effect of propagating poverty and its inevitable outcomes on the environment.

Clearly then, the tariff structures of Tanzania's major trading partners have provided an enabling and favourable external environment for the propagation of trade in these commodities, and hence promoted environmental degradation in the exporting country. The favouring of unprocessed or low level of processing of exports denies the poor countries the badly needed employment opportunities, and hence one source of poverty alleviation. It is also apparent that while developing countries like Tanzania depend on primary exports, the developed countries which are the major markets, do have a deep interest and need these exports for their various uses. Due to this coincidence then, this kind of trade relationship is bound to flourish. Thus, any desire to solve problems emanating from this relationship ought to take this into consideration.

5. Conclusion and Policy Recommendations

5.1 Conclusion

Apparently, there seems to be a conflict between SAP objectives of promoting exports through trade liberalization, and the payoffs of such policies as far as the environment is concerned. This conflict is reflected not only in the domestic economy, but also at the international level. Whereas, for example, the Rio Summit in 1992 nations pledged to conserve and protect the environment through adopting decisive measures, the trade structure of developed nations make it difficult for the

environment protection strategies to be implemented. The prevailing trade relationship among nations -- particularly the north-south trade relations -- make it difficult for immediate implementation of strategies for the desired objectives.

The reality in most LDCs is such that, poverty necessitate the developing countries to fall back on their natural resources as a way of improving their trade with others, and indeed for economic survival. However, there is need for developing countries, Tanzania being among them, to seriously look into the question of sustainable development.³ Environmental degradation has both trans-boundary and locality specific characteristics. Depending on the type of environmental problem, ultimately the local and global communities stand to lose. The loss would, for instance, be in terms of problems of global warming with attendant rising sea levels, ozone layer depletion, and acid rains.

5.2 Recommendations

The relevant authorities in Tanzania and the international community at large are called upon to consider incorporating environmental conservation concerns into economic reform programmes and take up the challenge of trade-offs for sustainable development.

For mutual benefit between developing and developed countries, we recommend that sustainable forest-based products' harvesting be practiced. This requires strong and effective monitoring and enforcement mechanism to be in place. This is an area in which national as well as the international community could lend a hand to developing countries' governments in promotion and support of programmes geared to that effect.

Sustainable harvesting practices include selective harvesting techniques, as opposed to clear cutting and replacement of harvested woodlots.⁴ Replanting or establishment of woodlots is a necessary requirement for those agro-based industries -- such as tobacco curing and tea drying -- to ensure a sustainable supply of the product through natural and artificial regeneration.

For poverty alleviation as a mitigating move towards sustainable development, the trading partners of primary products exporters from developing countries should revise their tariff structures so that the bias against processed commodities is significantly reduced or removed altogether.

Since most environmental factors fall in the public goods category (i.e., the commons), the responsibility of such goods falls into the hands of central or local governments. The implication is that shouldering this responsibility will require

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funds that might end up in increasing the financial burden to the government, something which the previous reform programmes strived to reduce. Like in many other cases, we need to strike a balance between the need to reduce government financial obligations with the need to conserve the environment for sustainable development.

Notes

1. Forest products fall under this category.
2. It should be noted that, for all the primary product, exports listed in the tariff schedule Tables 6 - 7 for tea, tobacco, cotton, logging and forestry, tobacco has the highest tariffs for all the three countries shown.
3. According to the World Commission on Environment and Development (WCED) sustainable development refers to "development that meets the needs of present generations without compromising the ability of future generations to meet their own needs". (Bojo, J. *et al.*, 1992: 14). The WWF defines Sustainable development as "improving the quality of human life within the carrying capacity of supporting ecosystems". Sustainable development must therefore encompass environmental, social and economic factors. (WWF, 1993: 5.).
4. This also involves the selection of wood species to replant for Biodiversity's sake.

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