Chapter 8: The Management of Industrial Reforms in Tanzania: Perspectives and New Challenges

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1. Introduction: The Rationale for Economic Reforms in Tanzania

1.1 Macroeconomic Environment

The economic crisis which persisted in Tanzania between the late 1970s and mid 1980s was mainly attributed to inappropriate and in some cases bad domestic policies, institutional failures and poor economic management. The economy was operating under massive government controls, regulations, frequent interventions (even interferences) and with public sector domination.[1] The end result of all these was the creation of distortions (e.g. through rent seeking activities) which prevented efficient allocation of resources. However while the internal factors were the main factors, the situation was compounded by the external factors such as oil price hikes. droughts, the Tanzania-Uganda war and the collapse of the East African Community

The inappropriate macroeconomic environment in particular was to be addressed through according a greater role to market forces in the allocation of resources and increased role of the private sector. The economy would thus see an improved allocation of resources, right price signals and a climate in which business responds to these signals. The end result is increased return to investment and improved growth. Outward orientation would improve export performance.

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[1] The role of external factors is in no way underrated. See also Chapter 2 of this book by B. Ndulu and S. Wangwe.

1.2 Reforms in the industrial sector

The philosophy behind macroeconomic reforms is that once the macro environment is "right" a trickle down effect to the macro and microlevels will be realized, and improvement in performance of the respective enterprises will be achieved. This, however, does not always seem to be the case. A follow-up of these macroeconomic reforms into action-oriented programmes at the sectoral and micro levels as well as to design sector specific policies within the setting of the macroeconomic framework is essential. Otherwise the trickle-down effect will not be realized - recovery, growth and a solid foundation for sustainable growth will continue being elusive.

The industrial sector in Tanzania[2] is an example of the contradiction between a "right" macroeconomic environment and a disappointing sectoral performance. Emerging from being the worst affected during the economic crisis, despite massive investments, the industrial sector has not recovered to pre-crisis performance. Further, the full potential of this sector is far from being exploited.

The main reforms in the industrial sector within the macro economic environment have evolved around restructuring activities, and liberalizing the investment climate.

From a mainly state-dominated structure the industrial sector is slowly passing to the private sector through a restructuring process with the (Presidential) Parastatal Sector Reform Commission (PSRC) overseeing the exercise. Further improvements in the operating environment of the sector have been made in areas of import duties for industrial inputs and streamlining certain procedures with regard to importing and exporting, as well as liberalization of the domestic market.

1.3 The Problem

Mild achievements have been realized for the past decade. Positive output growth rates have been restored, improvements in capacity utilization rates, productivity and competitiveness as well as in export

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[2] When we refer to the industrial sector we mean activities falling under the International Standard Industrial Classification (ISIC) major division 3 (i.e. manufacturing).

performance have been recorded. Of major concern, however, are the facts that these achievements show no sign of being sustained apart from being mere mild. Also, the mild achievements are still concentrated in few industries - the rest are either facing stagnation or are worse off. Performance in some indicators shows that the achievements are still below the pre-crisis levels. The potentials for output growth and export performance are far from being exhausted. Why then is the industrial sector responding so sluggishly to the reforms?

This chapter examines the performance of the industrial sector with a view to identifying the constraints to industrial recovery in the setting of a reformed macroeconomic environment.

It is organized into five sections. The introduction, just concluded, is followed by a brief review of industrial performance before reforms while section 3 reviews performance in the era of reforms. Section 4 identifies the missed aspects of industrial management during the reform period. The final section is devoted to concluding remarks.

2. Industrial Performance Prior to Economic Reforms in Tanzania

2.1 Preamble

The performance of the industrial sector in the pre-reform period was characterized by gross inefficiencies, low (and sometimes negative) output growth, low capacity utilization rates, low productivity and poor export performance (Shitundu and Mjema, 1995). As noted above such a performance is mainly attributed to internal factors i.e. the highly regulated environment (in terms of policies and institutions) in which the sector was operating, as well as to external factors..

The impeding policy instruments included an overvalued exchange rate, high lending rates, high and complex tax structures, price controls, restricted trade regime and largely government interventions (and sometimes interferences) in industrial activities (production and distribution systems). Lall et al (1992) point out that such an environment impedes competition and growth and contributed to the crisis experienced by most African countries including Tanzania.

2.2 Performance during the pre-reform period

There is ample literature on the performance of the industrial sector in Tanzania before the country embarked on economic reforms. Such works include Wangwe (1983) Mbelle (1988). Most of such studies concentrated much of the analysis on the aggregate behaviour of this sector. While adequate, such studies may overlook the subsector specific experiences within the manufacturing sector.

The pre-reform period is, however, not uniform. It covers the period since independence (1961) to 1985 (the mild and partial reforms of 1984 are usually not considered as "true" reforms). Within this period, two distinct policy stances are distinguished: periods of strict controls (roughly 1979-1985) and the rest, a period of liberal policies. When we talk of the pre-reform period we mainly mean this sub-period.

Our analysis of industrial performance in this sub-period will be brief and will cover sub-sectors within the manufacturing sector. Table 8.1 gives the experience of sub-sectors within manufacturing, during the pre-reform period (last decade).

Table 8.1: Performance of Manufacturing Sub-sectors During the Pre Reform Period: Proportion which improved performance (+) and which did not (-)

	Gross Output		Value Added		Changes propensities in export	
	+	-	+	-	+	-
% of sub-sectors	55.6	44.4	33.3	66.7	33.3	66.7

Source: Extracted from Appendix 8.1.

From Table 1 it can be discerned that in terms of gross output 55.6% or 5 of the 9 sub-sectors experienced an improvement. The activities which showed this trend included wood and wood products, paper and printing, chemicals, metals and machinery and other manufacturing. Total manufacturing showed an improvement by 43.7% (Appendix 8.1).

In terms of value added, however, only 33.3% or 3 of the 9 sub-sectors recorded an improvement - food and beverages, paper and printing and basic metals. Similar performance was recorded in terms of changes in the export orientation. Only 33.3 per cent of the sub-sectors (paper and printing, non metallic products and metals and machinery) showed improvement. Overall manufacturing recorded a fall of 42.3% (Appendix 8.1) of the proportion of output exported. Paper and printing sub-sector performed best probably due to excessive protection.

The multitude of problems confronting the manufacturing sector included foreign exchange shortage (for importation of raw materials), problems related to basic utilities (water and electricity), inadequate credit facilities, etc.

It should be pointed out that since most activities were undertaken by parastatals, the latter continued to enjoy a "soft budget constraint".

3. Industrial Performance During Economic Reforms in Tanzania

3.1 Preamble

As pointed out in Section 1, Tanzania moved into full-scale economic reform programmes to address imbalances in the economy. The industrial sector was to be addressed at two levels: macroeconomic framework and specific policies tailored to the sector.

(a) Reforms aimed at improving the macroeconomic environment

The group of policy instruments at this level aimed at setting the macro-environment "right" for economic agents to be guided mainly by market forces and hence improve their performance.

(i) In the external sector the major reforms centred around reforming the exchange rate towards an equilibrium. The rate was "set free" and subsequent policies e.g. the 1992 Act, left determination to market forces. Exporters were expected to gain by this move.

Secondly, an improvement in foreign exchange availability was enhanced through increasing windows. Although the origin is traced to the introduction of the Own Funds Window in 1984, reintroduction of the Open General Licence in 1988 (formerly suspended in 1982) and allowing foreign exchange bureaux to operate in 1993 (though their activities have now been limited to money changers) led to a great improvement in the availability of forex on demand.

(ii) The domestic environment was reformed through liberalizing interest rates, allowing private bank operators, liberalizing the domestic market (prices decontrolled, markets deconfined, etc.)

(b) Industrial sector-targeted reforms

(i) The investment climate was greatly improved through the enactment of the National Investment Promotion and Protection Act (NIPPA) of 1990, further revised in 1992 and 1994. It was hoped that investors both foreign and local would feel attracted to invest in Tanzania (including in manufacturing activities). Indeed by 1996 about 52 per cent of the projects *approved* (not commenced) were manufacturing projects.

Further, Tanzania is a signatory to the MIGA framework which gives further guarantees especially to foreign investors. The main target of this effort is to attract private investments.

(ii) Industrial Restructuring: this is mainly an exercise concerning the public sector involving the removal of protection, subsidies and other forms of support; commercialization of the public sector, privatization, closure of certain parastatals and retrenchment of workers.

The Parastatal Sector Reform Commission (PSRC) formed in 1992 was charged with the responsibilities of overseeing the reform process as well as improvements in efficiency in the activities remaining in the public sector. By June 1996 PSRC had successfully concluded 43 divestitures, bringing the overall programme total to 138 companies divested (out of over 300 candidates).

(iii) Reforming tariffs and sales tax structure: Remarkable reforms have been implemented in this area with rates being lowered and in fewer groups. The latest reforms effected since July 1996 set free many groups of intermediate inputs. The industrial sector is expected to gain further.

(iv) Streamlining procedures: This has occurred in areas related to licencing and export/import procedures. The industrial sector is expected to benefit through reduced transaction cost.

3.2 Review of Industrial Performance in the Period of Reforms (1986-1996) in Tanzania

Table 8.2 shows the performance of the manufacturing sector in terms of selected indicators of performance (share in GDP, growth and export performance).

Table 8.2: Selected Performance Indicators of the Manufacturing Sector in Tanzania During the Reform Period (Percent)

YEAR	Share in GDP (1985 Prices)	Man. Growth (1985 Prices)	Share in Tot. Exports	Share in NT Exports	Manufactured Exp. growth
1986	9.0	-0.2	10.7	45.5	+ 19.2
1987	9.6	+12.9	17.8	43.1	+16.1
1988	9.2	+1.6	18.9	48.8	+14.4
1989	9.5	+6.7	21.2	51.4	+18.9
1990	9.1	+0.9	23.8	48.9	+13.3
1991	8.6	+0.3	19.4	43.7	-27.7
1992	7.6	-8.3	16.0	38.8	-8.7
1993	7.4	+0.6	11.8	28.4	-19.0
1994	6.8	-4.9	14.8	42.2	+48.1
1995	6.5	-1.0	16.0	36.5	+41.9
1996	n.a	n.a	14.5	35.3	+1.4
Average	8.3	+0.9	16.8	42.1	+42.8

Key: n.a. data not available Tot. = Total. Exp. = export
NT non traditional. Man. = manufacturing.

Sources: 1. URT Economic Survey (1995) for column 2.
2. Own computations from various official government documents for rest of percentages.

In terms of contribution to GDP the performance of the manufacturing sector has been rather modest averaging about 8 per cent for the period 1986 to 1995. A general decline is observed from 9.0 per cent in 1986 to 6.5 per cent in 1995. A paltry achievement is reflected in terms of real growth having recorded only a positive growth of 0.9 per cent. The years after 1991 have seen disappointing performance, with a negative growth rate of (-) 8.3 per cent in 1992 marking the bottom. Sustained positive growth rates were only achieved between 1987 and 1991.

Export shares of manufacturing present a mixed picture. In terms of total exports it has averaged 16.8 per cent with an increase from 10.7 per cent in 1986 to 14.5 per cent in 1996 (peaking 23.8 per cent in 1990). There is a marked decline of the share in non-traditional exports from 45.5 per cent in 1986 to 35.3 per cent in 1996 with an annual average share of 42.1 per cent.

The growth of manufacturing exports shows a general positive trend (except for 1991-1993). The average annual growth rate for the period 1986-1996 is (+) 14.8 per cent[3]. A review of total performance of the sector only gives a general picture which may have less policy utility at the level of sub-sectors. Table 8.3 shows subsectoral performance.

Table 8.3: Performance of Industrial Sub-sectors During the Reform Period in Tanzania: Proposition of sectors which improved (+) and declined (-)

	Gross Output		Value Added		Changes in propensities export	
	+	-	+	-	+	-
% of sub-sectors	11.1	89.9	33.3	66.7	100	0

Source: Computed from Appendix 8.1.

[3] See also chapter 5 on export management by D. Bol and N. Luvanga.

In terms of gross output only one sub-sector (food and beverages) gained. About 90 per cent of the sub-sectors end up as losers. This can be explained by a remarkable revival of output in two main industries: - cigarette and beer brewing - following "successful privatization" of Tanzania Cigarette Company and Tanzania Breweries Ltd. In the case of the beer industry new firms have also entered the market. It should be noted however, that the success of these two cases is also attributed to the fact that they were profitable and also benefited from being resource-based. Moreover, these are just examples of the few other successful cases. But generally it is noted that the firms which were doing well (profitable) have attracted foreign investors and not those making losses, and hence have recorded success in their privatization process. Despite such few successful cases total manufacturing recorded a decline of (-) 355 per cent. With regard to value added only 33 per cent of the sub-sectors gained (food and beverages leading). The total for manufacturing is a decline of (-) 768.4 per cent.

The only global success story is in terms of export propensities. All sub sectors recorded a positive growth in terms of the proportion of output destined to export markets. The main driving force for exports has been found to be the exchange rate where some empirical studies in Tanzania found elasticities of over 2%[4]. Despite these drastic increases between 1986 and 1996 the share in total exports remained more or less constant especially after 1991.

From the above brief analysis it emerges unambiguously clear that the sub-sector of food and beverages (ISIC 31) is the only one which gained in all three aspects, followed by the sub sector of textiles, leather (ISIC 32) which gained in terms of value added and export performance[5].

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[4] See Tarimo, B. (1995) "The Economic Impact of Structural Adjustment Programmes (SAP): The Tanzanian Experience" Unpublished Ph.D. Thesis.

[5] Due to a disappointing performance in finished textiles, the textiles subsector per se (ISIC code 3211) has resorted to production and export of unfinished products, mainly yarn. At present there is only one private textile mill engaged in finished products.

Explaining the mixed performance of manufacturing sub-sectors during the reform period

The performance of the subsectors during the reform period can be explained by the following factors:

(i) Initial conditions at the onset of reforms played a great role in determining subsequent performance. Activities which seemed still viable easily attracted joint ventures and benefited from foreign capital in terms of rehabilitation. Such cases include Tanzania Breweries Ltd. and Tanzania Cigarette Company.

(ii) Extent of industrial concentration - industries in which concentration of firms was high performed better. This worked in favour of brewing and cigarette industries and against industries like textiles. It is easier to improve production conditions in fewer firms than in numerous ones.

(iii) Extent of upgrading and diversification:
The liberalization of external trade led to an inflow of competing products. Firms which invested in upgrading their products (improved quality control) and undertook diversification performed better than those which could not respond flexibly to trade liberation. This is of course a function of technological capabilities at the firm level. As a consequence subsectors with many such firms (or highly concentrated firms) improved further.

(iv) Response to chronic erratic supplies of basic utilities. Few firms have found lasting solutions to this problem through constructing own water reservoirs and installing stand-by power infrastructure. In this way they have managed to maintain smooth production.

(v) Availability of competing imported substitutes where imports of close substitutes managed to compete with local manufactures, such local manufactures performed poorly. It has been pointed out that problems with the system of tax administration is largely to blame for this "unfair competition" compounded by the "Zanzibar route", a product of failure to harmonize fiscal policies within the United Republic.

(vi) Flexibility with respect to substitution of inputs. Some activities with high import content have managed to respond flexibly by diversifying to local inputs and hence cushioning the effect of high costs due to devaluation. Those which have not (e.g. chemical subsector), did not perform very well.

(vii) Dependence on agro-based inputs: the reform programme has led to increased producer prices of certain agricultural outputs as an incentive. Activities that derive their bulk of inputs from such outputs (and are unable to diversify) have suffered. Such activities include textile manufacturing with cotton accounting for about 70 per cent of total input costs. It should be recalled that some textile firms had initially managed to diversify their inputs from imported yarn to locally produced yarn from (local) cotton.

(viii) Ability to source finance outside the formal domestic financial institutions. Firms with limited possibilities of raising and attracting finance from outside the domestic formal financial institutions have faced an acute capitalization problem. Non-bankable activities have not gained access to the liberalized financial sector credit. This partly relates to point (i) - how the activities have maintained "fitness" over the years.

To sum up, what distinguishes subsectoral performances is the ability to respond flexibly to the new macroeconomic environment dubbed hostile by some domestic manufacturers. High concentrated activities have managed to do so, and the key factor has surrounded the issue of technology.

Reliance on trickle down effects from the macroeconomic environment is an elusive factor. In deed experience shows that this has proved a failure attributed to inherent contradictions within the same framework and outdatedness of some of the key instruments e.g. heavy reliance on fiscal incentives.

4. Assessing The Potency of Tanzania's Reform Instruments and Strategies in Promoting Sustained Industrial Growth

In this sub section we attempt an assessment of the virility of the policies and strategies of managing the industrial reform process in Tanzania.

4.1 Policy instruments and strategies already deployed

(a)Reforming the macroeconomic environment:

The main areas that have been covered include the exchange rate, interest rate and inflation (currently estimated at 14%). These policy instruments have largely worked in favour of the industrial sector especially in stimulating exports. They have hurt the sector in terms of high lending rates. This is an area which needs further work especially given the low rate of inflation.

(b) Trade liberalization

This measure has sharpened competition and is perhaps the most criticized policy by local manufacturers in terms of failure of the government to promote "fair" competition. While it is well intended to promote efficiency, quality and availability of varieties, the form of trade liberalization pursued in Tanzania has seen the promotion of an influx of non- essential imports (thus taxing the foreign exchange base of the Nation); and loopholes and leakages (deliberate misspecification of imports and under-declaration). This has put competing domestic manufactures at a disadvantage. The "Zanzibar route" is such a source of leakages. The formation of the Tanzania Revenue Authority is a welcome counterpoise.

(c) Privatization

This measure, overseen by the PSRC, was well intended to address failures of the state in managing public enterprises. The manufacturing sector was to benefit from forthcoming sales and joint ventures through restructuring and rehabilitation programmes. The slow progress has been mainly attributed to lack of effective demand by potential local buyers and less attraction to foreign buyers due to accumulated debts and non-viability of the candidate enterprises. Further, the exercise has been popularly criticized for overlooking the nationals, low price offers, etc. Further, the full range of alternatives open has not been exhausted. Socially, the issue of retrenched workers is a potential crack in the social fabric.

(d) *Investment Climate*

While it is true that the investment climate has radically improved (enough to attract foreign and local investors), there are shortfalls which inhibit the full realization of benefits. The issue of capital for local investors has been ignored; facilitation of procedures is far from being achieved. Investors are often entangled in the web of bureaucracy. Reliance on incentives like tax holidays, etc. which Tanzania relies greatly on, is now proving outdated the world over. However low an investment climate can stoop in terms of concessions, if procedures are still itchy, the response of investors, especially foreign, will remain elusive or else very cautious (starting with hotels, trading facilities, consultancy firms).

4.2 *Instruments and strategies in deployment*

(a) *Export Processing Zones (EPZ)*

Tanzania has already adopted the EPZ strategy as a special measure for promoting exports and as an instrument for economic and technological development (SIDP, p. 22). It is one of the strategies for achieving the mission and objective of SIDP.

The EPZ strategy relies on a host of incentives (duty-free imported inputs, infrastructure, subsidized utilities, tax holidays designation of area or activity) etc. The expected benefits include employment creation, their demonstration effect, technology transfer and foreign exchange earnings mainly through selling to industrial country markets (Lindauer and Roemer, 1994).

Tanzania is not likely to gain much from this strategy given the current state of the operating environment - poor infrastructure and underdeveloped economy-wide linkages for both inputs and technology. In addition, the potential for leakages is great. Lastly, for those activities already established under this strategy (e.g. garment manufacturing) criticisms have already surfaced with respect to labour relations and the activities being environmentally unfriendly - and suspicions of leakages.

(b) Sustainable Industrial Development Policy (SIDP, 1996-2020)

The Ministry of Industries and Trade recently launched this strategy. Two factors prompted the launching - the end of the Basic Industry Strategy in 1995, *hence* the need to have a new vision (long term); and the phasing out of government major role in productive activities. The approach adopts a "harmonious partnership" and "strategic alliance" between the government and the private sector.

The "mission" of SIDP is two-pronged (pp. 2-6): to contribute towards the achievement of the national long term development goals and to enhance sustainable development of the industrial sector. The objectives are: to contribute to human resources development and creation of employment; to contribute to economic transformation for achieving sustainable economic growth and contribution to (improving) the external balance and equitable development.

While the policy is timely, the strategies lack action programmes. In addition, the chronic problems of infrastructural inputs have not been adequately addressed. Further, financing aspect is far from being addressed. Studies are called forth in identifying actual priority areas (p. 11) when they should have been known by now. Like in the past, the policy lacks sub-sector specific policies. As we saw in section 3 what happens at the sectoral level may be quite different from what happens at the subsectoral level (just like at the macro and sectoral levels). The implementation strategy is in three phases: the first five years being devoted to rehabilitation and consolidation of existing capacities; the next ten years for creating new capacities and the last ten for creating capital goods industries. The loss of the initial fifteen years will prove very costly.

4.3 Instruments and Strategies Missed

(a) New technologies policies (and technological capabilities)

The ushering in of liberal reforms in 1986 was supposed to go hand-in-hand with strategies of new technologies and capabilities. The only way exports can compete in the world economy is through new technologies (see Mbelle and

Bagachwa 1995). In Tanzania this has come as an after thought almost a decade later, thus denying the country full benefits for about a decade. Even the Science and Technology Policy (1996) does not address adequately how sectors, sub-sectors or firms could be helped to gain capabilities in crucial areas such as process and engineering design, standardization and quality control, packaging, technology adaptation and innovation.

(b) *Human resources development*

SIDP acknowledges that the labour force in manufacturing is of poor quality, with inadequate technical, managerial and entrepreneurial skills to meet the challenges of an advanced industrial culture (pp. 25-26) and further that human resources development has not been given emphasis in national strategies. This was basically an error. The East Asian experience provides enough lessons.

(c) *Environmental considerations*

We are concerned with industrial pollution for two main reasons: socially because of the serious damage to human health and the ecosystem; and economically in order to promote efficiency (to equate costs and benefits) - higher costs will affect industry and domestic consumption. A combination of the two leads to a frequently sick labour force and high operation costs.

The main determinants of industrial pollution are processing technologies, scale of industrial activity and sectoral composition. The experience of Tanzania in this area is very poor. Awareness of the damages is just a recent phenomenon and the legal system has only general interpretations. Environmental Impact Assessment (EIA) for new projects has just started (and is now incorporated in SIDP, pp., 37-39).

Despite incorporation in SIDP, concrete measures are lacking. Needed is the creation of an infrastructure to start monitoring effluents in factories (including EPZs) - measuring environmental parameters at firm level. Thus while trying to put action on the industrial policy (SIDP), stress must also be put on environmental conservation. There are already many laws in that regard and what is required is enforcement of the laws. To do this we need national standards set to serve as ganging devices otherwise it is not easy to enforce. The Industrial Pollution Projection System (IPPS) which has proved successful application in Latin American Countries could easily be adopted in Tanzania, to create industrial pollution data and subsequently assist in laying strategies for environmental conservation.

It is true that marginal abatement cost varies with sector, pollutant and firm size. There is thus need to urgently institute sector-specific measures.

In terms of strategies, empirical studies have shown that market-based instruments are superior to command and control ones in terms of checking pollution (both static and dynamic efficiency, flexibility, information intensity and potential for abuse). Tanzania should work out a mixture that is workable in her environment. Failure to take into consideration environmental concerns has resulted into lost work days and continued operation of out-dated technologies.

(d) *Infrastructure*

This refers to the whole range of basic infrastructure (roads, airways, communication, etc.) - and infrastructural inputs (water, power). As the country moves towards the 21st century these remain burning issues. No industry can run smoothly in such an environment - hence a contributing factor to the bad performance of the industrial sector in Tanzania during the reform decade.

5. Concluding Remarks

5.1 An analysis of industrial performance in many developing countries is bound to founder on two methodological hitches. One, the tendency of reporting on public formal sector only; and two, failure to capture informal sector statistics. The liberalized business environment has led to a mushrooming of microenterprises. Given their greater potential for output generation, employment creation and source of entrepreneurial and technological development, this sector should be accorded the highest priority. As Lall (*et al*, 1992) points out, this sector is the seed-bed of modern industry. Fortunately there is hope for this sector as attention has started being directed towards it by recent government policies, foreign donors, NGOs as well as investors.

5.2 The management of the industrial sector during the reform period has seen the application of a mixture of policies that sometimes conflict one another in terms of promoting sustained industrial growth - at the macro level.

5.3 At the level of industry the broad policies spelled out (and sometimes implemented) have not been of much help to many sectors. Sub-sector experiences varied greatly. There is need to design subsector specific programmes and "sub policies" rather than expect the sector reforms to automatically trickle down to subsectoral levels. Such measures can relate to rebates or any other form of compensation for unavoidable costs. For example, this could be worked out for the textiles sub-sector to ameliorate the adverse impact of the price of cotton.

5.4 In order to realize sustainable industrial growth it is important to correct those policies and strategies badly deployed during the reform period, through revisiting "burning issues" like fiscal policies, refine those being deployed (SIDP) through urgently designing work programmes and implementation timetable and financing modalities and incorporate fully those missed aspects (new technologies and technological capabilities, human resources development, environmental considerations and infrastructure). These can be incorporated through according high priority and greater resource allocation to R&D activities (for technology issues); higher allocation of resources to training and learning by doing; enact laws that discourage pollution and explore alternative and supplementing sources to existing stock of infrastructural inputs.

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Appendix 8.1: Selected Indicators of Industrial Performance in the Pre-Reform and Reform Periods in Tanzania (% Change)

ISIC	GROSS OUTPUT		VALUE ADDED		EXPORT PROPENSITIES	
CODE	Preref.	Ref.	Preref.	Ref.	Preref.	Ref.
31	-15.6	+5.2	+2.2	+12.8	-18.6	+32.6
32	-14.9	-40.1	-2.2	+2.9	-63.1	+321.1
33	+10.1	-67.2	-3.7	-99.6	-52.6	+647.8
34	+12.2	-12.8	+17.9	-25.6	+216.7	+256.1
35	+16.5	-12.2	-17.8	-61.1	-41.0	+223.8
36	-12.7	-118.4	-80.6	-543	+172.5	+149.4
37	-11.6	-32.9	+217.9	-37.1	-61.1	+123.8
38	+50.8	-65.2	-17.9	-30.2	+41.7	+33.3
39	+8.9	-11.7	-64.3	+12.5	n.a	n.a
3	+43.7	-355.3	+51.5	-768.4	-42.3	+219.8

Key: ISIC - International Standard Industrial classification.

3	= Manufacturing	36	= Non metallic products
31	= Food, beverages	37	= Basic metals
32	= Textiles, leather	38	= Metals & machinery
33	= Wood, furniture	39	= Other manufacturing.
34	= Paper, printing	Ref	= Reform
35	= Chemicals	Preref	= Pre-reform.

Source: Own computations from URT, Economic Survey (various issues).