

Industrialization for growth and poverty alleviation in Tanzania: a strategy for skills development

Research Organization (STIPRO)

Bitrina Diyamett
Science, Technology and Innovation Policy

Outline of the Presentation

STIPRO STIPRO

- Introduction
 - what is industrialization
 - What is poverty enhancing growth?
 - Where does it come from?
- Situation of the manufacturing sector in Tanzania
- What should be the strategy to address the situation?
 - Sectors to target and strategies
- Matching the proposed strategy with current Tanzania industrial strategy
 - Is it on the right track?
- Existing skills gaps
- Some recommendations for skill development.

Introduction



- In general (in national accounts) the industrial sector refers to three subsectors of mining, manufacturing and construction.
 - Manufacturing is about value addition- it is any business that uses components, parts or raw materials to make a finished goods
- The concept of industrialization refers to the manufacturing sector, defined as is the process in which a society or country (or world) transforms itself from a primarily agricultural society into one based on the manufacturing of goods and services.
- It is manufacturing sector that is important for poverty eradication

Introduction cont...

- a
- First, it ensures sustainable growth of the country (a necessary condition for poverty alleviation):
 - Bulk of world export (about 70% in 2010) is on manufactured goods.
 - The price of manufactured goods tends to be more stable than that of commodities, and therefore stable and sustainable growth
- Employment generation: no sector in an economy is as employment generating as the manufacturing sector:
- Huge potential for employment generation:
 - the development of the manufacturing sector, apart from its huge potential for employment, stimulates demand for more and better services, including banking, insurance, communication and transport, which leads to further job creation.

Situation of the manufacturing sector in Tanzania

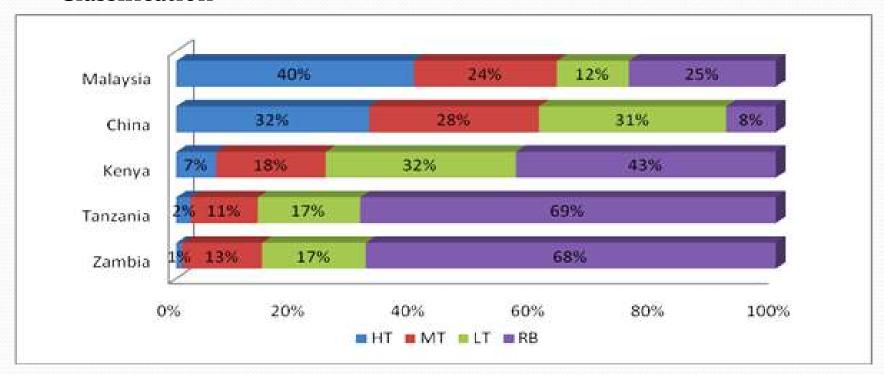


- For Tanzania to achieve a middle income status by 2025, it requires a contribution of the manufacturing sector to GDP to be 23%; it is currently about 9%.
- The sector is very small in size, and largely low tech and resource based, with very low value addition – in comparison with selected countries
- The below picture demonstrate these

Situation of the manufacturing sector in Tanzania cont..



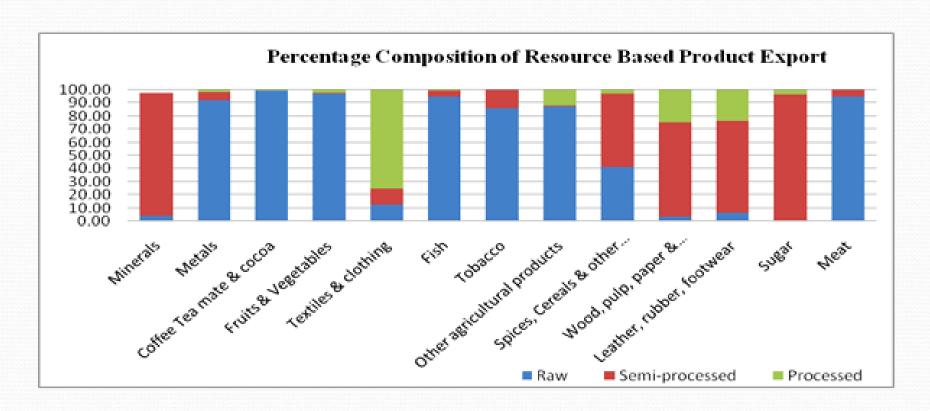
Figure : Structure of Manufactured Exports by Technology Classification



Situation of the manufacturing sector in Tanzania cont..



Fig: Processing Degree of Resource-Based Exports



What should be a strategy to grow the manufacturing sector?



- Should be in short, medium and long terms
- In the short term
 - Tanzania must grow its low tech sectors, e.g. and especially the agro-processing; developing linkage with the agricultural sector
 - At the same time increase agricultural productivity
- In the medium term,
 - help low-tech and labour-intensive sectors gradually move up the innovation capability ladder by deepening their technological and innovation capabilities
 - Move into high value mineral processing

Strategy to grow the manufacturing sector cont..



- In the long-term,
 - In the long-term, the target should be to move towards a more diversified, sophisticated and internationally competitive national manufacturing sector
 - It is important to recognize Tanzania's comparative advantage in this, and to achieve a competitive advantage around it by building a secure physical and knowledge infrastructure

Matching the proposed strategy and current Tanzania industrial strategy.



- Right direction at the macro level decisions in terms of short term:
- For instance in terms of priority sectors: fertilizer and chemicals industry, agro-processing (edible oil, cashew nuts, fruits, milk and dairy products), the textile industry subsector, leather and leather goods industry, light industry manufacturing, iron and steel industry.
- But a number of weaknesses at the meso and micro levels
 - Micro: little emphasis on follow up of innovation strategies, opportunities and challenges of individual firms
 - Meso: poor governance of the systems of innovation.





- Skilled human power is one important component for innovation and growth of the manufacturing sector
- Skills gap? Not very sure whether there is a comprehensive recent survey on this, but:
 - Older surveys did it wrongly looking it from the perspective of the surveyor, rather than from that of a company
 - Our (STIPRO) studies on innovation (agro-processing and metal sector), indicate inadequate skill is third most important constraints to innovation; first is markets and second is technology itself.
 - Our studies also indicate that VET has not been helpful because it is based on theoretical learning only.



Existing skill gaps cont..

- Requirement of skills is not only limited to the micro level at the firm levels, but also meso level in terms of governance of the ST&I system and policy making and coordination
 - Knowledge on the right institutions, their responsibilities and arrangements.
 - Policy making process the concept of ST&I is inadequately understood, leading to ambiguities in policies.
 - In adequate expertise in innovation and development; and therefore researchers who can produce evidence in decision making

Some recommendations for skill development.



- Basically targeted at addressing the mentioned challenges towards strategic actions:
 - At the short term we have low tech sector: emphasis on technical and vocational training, rather than university education.
 - This sector is very small it needs to grow through growth of existing ventures and opening up of new ones, especially in rural areas: emphasis on incremental innovation capability building and technological entrepreneurship.
 - Train the existing policy bureaucrats on the concept of ST&I and its policy making process
 - Provide courses on innovation and development in universities.
 - Build national capacity for technology foresight and future studies

 to enable move in the right direction in terms of education –
 towards more longer term industrialization strategy.



Thank you very much for your kind attention For more, please visit us at www.stipro.or.tz