

Chapter 14

Industrial Development: The Past, Present and Future

Provident Dimoso, Hosea Mpogole and Hozen Mayaya

“As I inaugurated this Parliament in 2015, I remember promising that my government would continue the efforts of previous administrations to boost the economy as well as to tackle the problems of poverty and unemployment. So, over the past five years, we have worked hard to keep that promise, especially by promoting our main sectors of the economy and production, including manufacturing, agriculture, trade, mining as well as tourism. In terms of manufacturing, we have established 8,477 new industries, of which 201 are large, 460 medium, 3,406 small, and 4,410 minor industries. This has increased the number of industries in the country from 52,633 in 2015 to 61,110 in 2020. The newly established industries have helped make our country self-sufficient in some products, including cement, steel and iron sheets. In addition, the new industries have created 482,601 jobs.”

His Excellency President Dr John Pombe Joseph Magufuli's given speech during the dissolution of the 11th Parliament on 16th June 2020 in Dodoma, Tanzania

1. Introduction

Although industrialization has not been considered in the success story of Tanzania, it is critical in the transition to the middle-income economy. The industrial sector, including manufacturing, agro-industry and tradable services, is a highly productive sector that potentially employs many modestly skilled workers, accelerates poverty reduction, and diversifies the economy.¹ Industrialization compliments the agricultural sector, which is paramount to increasing the value of agricultural produce in the value chain and enhancing rural development. To enable Tanzania achieve a semi-industrial economy, the Fifth-Phase Government under His Excellency President Dr John Pombe Magufuli developed the Five-Year Development Plan 2016/2017–2020/2021 (FYDP II) to guide the industrialization agenda. The Magufuli administration sees rapid industrialization as key to reducing dependency and insecurity as well as to eliminating income poverty.²

Since coming to power in 2015, Magufuli has taken various decisive measures to build the necessary infrastructure for industrialization. The infrastructure includes the standard gauge railway, the energy generation plant at Stiegler's Gorge, bridges, roads and flyovers, ports, and many others. Besides, the Magufuli administration has fearlessly fought against grand corruption, removed ghost workers, and restored discipline and accountability in public office. By any standards, the Magufuli administration has applied a unique approach, compared to the previous administrations. This paper analyses recent developments and achievements of the first term of the Magufuli administration concerning industrialization as a drive for the middle-income economy. Specifically, the paper analyzes whether the recent developments and achievements of the Magufuli administration are 'game

1 Page, J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

2 Maliyamkono, T. and Mason, H., 2019, *Vivanda Moving Tanzania Forward*. TEMA Publishers, Dar es Salaam.

changers' that will lead to a rapid transition to a semi-industrialized economy, which the Tanzania Development Vision (TDV 2025) and FYDP II seek to achieve. First, because the industrialization agenda has existed since independence, albeit with limited success, the paper starts by reviewing previous policy and implementation challenges. Second, the paper outlines and discusses the efforts, recent developments, and achievements of the Magufuli administration and their impacts on the industrialization landscape. Third, as Tanzania has transitioned to the lower-middle-income status, the paper discusses basic issues for the rapid achievement of the semi-industrial economy. Fourth, the paper concludes on industrialization efforts by the Magufuli administration and provides recommendations for future policy decisions.

2. The challenges facing post-independence industrial development in Tanzania

The industrialization agenda is a common concept in Tanzania. Since independence in 1961, previous administrations, including Mwalimu Julius Nyerere's, viewed industrialization as an important means to transform Tanzania and reduce dependence on the former colonial powers.³ However, for the most part, the industrial performance was not successful, giving rise to a major question as to why so little industrialization has been achieved after nearly 60 years of independence. Available statistics show that the GDP share of the manufacturing sector declined from 22% in 1975 to about 10% in 1990. Due to this decline, several initiatives have been taken to redress the situation. Some of these include the establishment of the Tanzania Industrial Research Development Organization (TIRDO) in 1978 to support the functioning of the Economic Recovery Program (ERP). The TIRDO was formed to conduct industrial research, offer consultancy services to industry, and promote the use of technology as well as local

³ Page. J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

resources. In 1996, the Mkapa administration established the Sustainable Industrial Development Policy (SIDP) 1996-2020 to enhance sustainable development of the industrial sector. Besides, the Mkapa administration established the Export Processing Zones (EPZ) Act in April 2002 to attract and promote investment for export-led industrialization. In 2010, the Kikwete administration established the Integrated Industrial Development Strategy (IIDS) 2025 to promote efforts to achieve the SIDP goal of bringing the economy to a sustainable industrial development state.⁴ Despite these efforts, industrialization remained relatively low. In this section, various challenges of the post-independence industrialization efforts are discussed.

The first is the challenge related to the shortage of qualified human resources. Quality human resource is one of the requirements for promoting the industrial agenda in the country.⁵ Human resource takes into account both the mental and physical abilities of a person to produce.⁶ Tanzania has for so long suffered the shortage of qualified personnel to run industries. For instance, the Mwalimu Nyerere administration inherited the country from colonial rulers with only one engineer. During this period, there was a serious shortage of both managerial and technical human resources.⁷ To address the shortage of trained personnel, Tanzania chose to widen education access, from primary to university levels. However, based on input and output in assessing quality education for primary school, Tanzanian students appear to be disadvantaged in regional or global comparison.⁸ Increase

4 Msami, J. and Wangwe, S. (2016). Industrial Development in Tanzania. In C. Newman *et al.* (eds), *Manufacturing Transformation: Comparative Studies of Industrial Development in Africa and Emerging Asia*. Oxford University Press, UK, pp155-173.

5 Maliyamkono, T.L. and Mason, H., 2006, *The Promise*. TEMA Publishers, Dar es Salaam.

6 Morkovkin, D.E. *et al.* (2016). Factors and Material Conditions for Space-Intensive Economic Development of Region. *International Review of Management and Marketing*, 6(51): 67-72.

7 Skarstein, R. and Wangwe, S. (1986). *Industrial Development in Tanzania: Some Critical Issues*. Scandnavian Institute of African Studies in Cooperation with Tanzania Publishing House, Dar es Salaam.

8 Semali M. L. (2014). *Rethinking Quality Education in Tanzanian's Classrooms*.

in enrollment did not guarantee quality graduates. It was further reported that more than half of the workers in an average company were low skilled, nearly one-third were medium-skilled, and only 16 per cent were highly skilled. Furthermore, 66 per cent of industrial employers disclosed that only a few of their workers were literate; 80 per cent of employers claimed that none or few of their workers were numerate, and 90 per cent of them stated that few of their workers had IT skills.⁹ These figures signal unsatisfactory human resources to sustain industrialization in Tanzania. Low skilled human resources may translate into limited innovation and technology development.

To revamp human resources, the Magufuli administration geared towards the provision of fee-free primary and secondary education. In the period of four years, from December 2017 to February 2020, the government had spent TZS 1.01 trillion to provide free primary education. The number of primary schools has risen from 16,857 to 17,771, and the number of students has risen from 10,201,972 to 12,034,599 in the same period. The number of secondary schools has increased from 4,773 to 5,001 from December 2015 to February 2020, and the number of secondary school students has risen from 1,806,955 to 2,023,457 in the same period. The increase in the number of secondary schools enabled students who pass their primary school examination to proceed to secondary schools.¹⁰

In the same line, the Magufuli administration has been promoting Vocational Education and Training Authority (VETA), which was established in 1994 to enable Tanzania to have a sufficient number of competent artisans to build more training centres.

Pennsylvania State University, USA.

9 UNIDO and URT (2012). Tanzania Industrial Competitiveness Report. Ministry of Industry and Trade, https://www.unido.org/sites/default/files/2013-08/TanzaniaIndustrialCompetitivenessReport2012-ebook_0.pdf.

10 URT (2020).PO-RALG Budget Speech, Dodoma, Tanzania

Currently, VETA is coordinating over 700 VET institutions throughout the country. On the side of higher learning institutions, the National Council for Technical Education (NACTE) has accredited over 400 institutions, and the Tanzania Commission for Universities has accredited 43 universities. These institutions are expected to enable Tanzania to register an ideal workforce pattern of at least 12 per cent of high-skilled workers and 33 per cent of medium-skilled workers and leave at most 55 per cent low-skilled or unskilled workers.¹¹ However, the current workforce is comprised of 84 per cent of low-skilled or unskilled workers. The larger number of low skilled and unskilled human resources has been a challenge for industrialization in Tanzania.

The second is concerned with policy-related challenges. As mentioned above, industrialization in Tanzania has been guided by different policies based on specific periods. It started with a mixed economy 1961 – 1965, then state-led import substitution industrialization (1967-85), followed by Structural Adjustment Programmes (SAPs), and trade liberalization between 1986 and 1995. Thereafter, from 1996 to 2020, the government established the Sustainable Industrial Development Policy (SIDP) 1996-2020 to shift the economy's engine of growth from the public to the private sector. These periods were characterized by different incubation and protection policies. For example, just after independence, the government did not make an abrupt change; therefore, the focus was on import substitution and growth, with little interest in structural change and ownership. In the same line, the government passed the Foreign Investment Protection Act of 1963 to attract Foreign Direct Investment (FDI). It provided tax incentives to encourage investment and attract capital from both local and foreign business communities.¹²

11 Bella Bird, World Bank Country Representative, in T. Maliyamkono and H. Mason, 2019.

12 Wangwe, S. *et al.* (2014). The Performance of Manufacturing Sector: Challenges and the Way Forward. World Institute for Development Economics, WIDER Working Paper 2014/085.

However, it appears that foreign investors felt uncomfortable; therefore, they did not support the idea. It was probably against their interest. Consequently, the policy did not lead to the expected results. Relatively low investments were done in this policy life span.

In this context, an opposite policy was employed, which is state-led import substitution industrialization. The policy to incubate industrialization was anchored in the Arusha Declaration and the education for self-reliance policy. The period between 1967 and 1985 was characterized by a state-planned economy guided by socialism and self-reliance philosophy. Strict guidelines on the ownership of the major means of production were introduced. The foreign and private local investment was no longer entertained. This period was characterised by the nationalization of investments and other properties. The government exercised more control over the industrialization process, including the introduction of an industrial licensing procedure under the National Industries Licensing and Registration Act of 1967.

The Government took part in industrialization and business operations through the National Development Cooperation (NDC) and the State Trading Corporation. State controls in industries and main economic activities were enhanced. During this period, the controls went up to regulating prices of commodities through the Price Control Act of 1973. This was a completely different incubation and protection policy as compared to the early years of independence. The economic crisis of the 1970s to the early 1980s resulted in the global fuel crisis in 1973, the abolishment of cooperatives that were an important route to markets for agricultural products in 1973,¹³ villagization in 1974 and the subsequent famine in 1975.

13 Van Arkadie, B. (1995). Economic Strategy and Structural Adjustment in Tanzania. Private Sector Development Department, Occasional Paper No. 18, World Bank. <http://documents1.worldbank.org/curated/en/649601468765032908/pdf/multi0page.pdf>

The expansion of military expenditure and the war against Uganda in 1979 frustrated industrial development. In an economic crisis such as wars, the government, which is responsible for the capital provision, industrial investment and business operations, is likely to fail in business because it will automatically concentrate on wars and consequently lose control of industrial investments.

Following the 1980s' economic crisis, the governments subscribed to the Structural Adjustment Programmes of the International Financial Institutions between 1986 and 1995. Specifically, it implemented the Economic Recovery Programme to revamp industrialization. The efforts include financial policy reforms, parastatal restructuring, trade liberalization and privatization, to reduce the financial burden of the government and enhance profitability. Additionally, it removed government subsidies to garments industries. The industries started to suffer from the effects of trade liberalization. Better quality clothes were imported at relatively lower prices; therefore, they outsmarted garments made by domestic firms in the market. Used clothes "Mitumba" were imported and sold at lower prices than the new clothes made by the local industries. In 2002, Mitumba composed 35.2 per cent of all imported garments.

SAPs, ERP and Trade liberalization had detrimental effects on local industries. For example, in garments industries, 22 out of the country's 24 textile factories were closed by the year 1990. The change of policy failed to protect local industries. Most of the government-owned garment industries were shut down by the late 1990s. Superimposed SAPs were not useful in incubating local industries.

In 1996, the government introduced the Sustainable Industrial Development Policy (SIDP) which was supposed to be implemented from 1996 to 2020. Tanzania is also guided by the Development Vision 2025 to reach a semi-industrialized

nation by 2025. Sector for development to ultimately make the nation semi-industrialized by 2025. The SIDP allows both the private sector and the government to inject capital for industrialization. The government creates an enabling environment for the private sector to invest and run Industries.

Also, the government may invest in industries, where necessary. In 2015, the Magufuli administration introduced the motto "*Tanzania ya Viwanda*" to promote industrial investment and development. The government has been inviting both local and international business communities to invest and run their industries in Tanzania, given that they pay tax and respect the laws of the Land. The Magufuli administration has also been strict on illegal importation and exportation of goods. These policy actions appear to be appropriate for incubation of local industries; however, they have come a bit late. Industrial development depends on consistent incubation and protection policy. If the policy that guides industrial investments is constantly changing, such as from a mixed economy to a state-planned economy, to privatization and liberalization and back to the mixed economy, investors find the environment tricky for investment.

The third is the challenges related to transport and communication infrastructure. Infrastructure is one of the most important prerequisites for industrial development. As for Tanzania, which is an agrarian society, most of her industries are agro-processing; therefore, they access raw material from farms. The market for the products is mainly in urban areas. In this situation, industrialization cannot flourish without good transport and communication infrastructure. The Tanzanian economic reforms made it possible for market forces to determine prices. In this context, having good transport infrastructure is important. Otherwise, poor transport and communication infrastructure will retard industrial growth since the final products will reach the market

with unnecessarily high prices due to hiked transport costs for both raw materials to the industry and the final products to the market.

The Tanzanian road network comprises 145,204.2 km of roads in the formal records, of which 12,221.88 km are classified as trunk roads, 24,035.74 km as Regional roads and the remaining 108,946.2 km as District roads.¹⁴ A larger part (75 per cent) of the road network is comprised of district (collector, urban and feeder) roads where raw materials are coming from, of which not all is tarmac or paved. This poses a challenge to industrialization. These roads need to be improved to lower transport costs, facilitate cost-effective access to raw material and markets, and enable competitive final product prices. Recognizing this, the Magufuli administration has paid a lot of attention in the construction of transport infrastructures such as bridges, roads, flyovers, railways as well as air and marine ports.

Fourthly, there are challenges related to the multiplicity of regulatory authorities, fees and taxes. The multiplicity of taxes and duplication of regulations and regulatory authorities were some of the impediments for industrialization. Some products were regulated by more than one Authority.

For example, foods must be checked and approved by the Tanzania Food and Drugs Authority (TFDA) and the Tanzania Bureau of Standard (TBS). Additionally, to invest in the food industry, the investor has to get clearance from the National Environment Management Council. Several regulatory authorities make investments and the formalization of products bureaucratic and unfriendly. For foreign investments, for example, one should acquire a certificate of compliance for foreign companies or certify of incorporation

¹⁴ URT (2017) Transport and Meteorology Statistics, Ministry of Works, Transport and Communication, Transport Sector available in <https://www.mwtc.go.tz/publications/7> accessed on 13th August 2020

for private and public companies from the Tanzania Business Registration and Licensing Agency (BRELA). The industry must also be registered by the Tanzania Revenue Authority (TRA), the Ministry of Industry, Trade and Investment (MITI) or Municipal or City Council, Tanzania Bureau of Standards and a Pension Scheme. Additionally, the investor and their foreign workers must apply and pay for a specified-time working permit. These registrations would involve payments for different certificates, licenses and permits for operations and would take some time to complete.

Furthermore, the same investor has to pay several taxes and fees. It is important to pay tax; however, the estimate methods and the tax amount must be predictable.¹⁵ Besides, the tax payment process must be smooth. The Magufuli administration made a good attempt to allow tax payment through online methods; however, there are noticeable situations where the online payment system is down. Also, through the Tanzania Investment Center (TIC), the administration has changed the game. The TIC has now established a one-stop centre to ensure that investors can handle all investment requirements at one point. This has reduced bureaucracy and the time spent to establish a business in Tanzania.

This is a commendable initiative; it needs to go to different levels, including the Local Government Authorities. Referring to the World Bank Easy of Doing Business Report of 2019, Tanzania has recorded +0.34 points, an improvement in scores as compared to the score of 2016/17, which is a positive change.¹⁶ Regarding tax, various reforms and campaigns including the most popular one by President Magufuli himself "*Ukinunua dai risiti*" translating to "*When you buy, claim your receipt*" has greatly enhanced tax collection. For example, the tax collected in the fourth quarter of 2018/2019 from direct

15 Maliyamkono T. and Mason H. (2019). *Viwanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

16 World Bank Group (2019.) *Doing Business 2019: Training for Reform*.

tax, indirect tax, customs and excise, and the large taxpayers' department was TZS 3.7 trillion as compared to TZS 2.5 trillion collected in the fourth quarter of 2014/15.¹⁷ This is an increment of nearly 50 per cent in the four years.

The fifth is the issue of energy. Three important dimensions have to be considered in analyzing energy and its effect on industrialization. The dimensions are the availability of energy (production and distribution), reliability, and price.

The availability of reliable and affordable energy has a great contribution to industrial development in a nation. For many years, Tanzania relied on inadequate hydroelectric power as the main source of electricity since independence. For the last 20 years, hydroelectric power plants contributed about 80% of electricity supplies before the commercialization of natural gas in 2004. The total capacity of hydroelectric power plants was 561.84MW from six power stations, namely Kihansi, Pangani, Mtera, Kidatu, Nyumba ya Mungu station and Hale.¹⁸ Next to hydropower is natural gas due to the installation of five power plants that are capable of producing 495.44 MW in total. However, the old age of the hydro-electric power plants (Four out of six plants were installed before 1980), increased demand (growth in demand is 10 to 15 per cent per annum) as compared to the production capacity, and long dry seasons contributed to unreliability and raised electricity prices. In some years, the nation was experiencing electricity rationing and long power cuts, reaching up to 20 hours a day¹⁹.

17 TRA Tax reports for the Fourth Quarters of the Year 2014/2015 and 2018/19. <https://www.tra.go.tz/index.php/116-tax-collection-statistics>

18 Mdee J. O, Nielsen T. K, Kimambo C. Z. and Kihedu J. (2018). Assessment of Hydropower Resources in Tanzania. *Renewable Energy and Environmental Sustainability Journal*, 2(4). www.res-journal.org

19 Msyani, C. M. (2013). Current Status of Energy Sector in Tanzania: Executive Exchange on Developing Ancillary Service Market, USEA - Washington, 25th February - 2nd March 2013. <https://usea.org/sites/default/files/event-/Tanzania%20Power%20Sector.pdf>.

For example, from 2003 to 2005 and from 2009 to 2012, notable droughts affected the major hydropower reservoirs in Tanzania. Such droughts affected the production of electricity. The country thus experienced unscheduled load-shedding and expensive electricity prices.

Consequently, the government was forced to sign an expensive contract for alternative power production with the Independent Power Tanzania Limited (IPTL), which included lease charges regardless of production. This made electricity prices very expensive. Individuals, entrepreneurs and industrial investors had to look for alternative sources of energy as backups. These included solar panels and diesel generators. Generally, the cost of production skyrocketed, making the prices of final products expensive and less competitive in the market. Industrial investors started to withdraw their investments. Ultimately, the economy was affected. The environment for industrial investments became very turbulent. One of the extreme effects of the shortage of electricity is the resignation of the then Prime Minister Hon. Edward Lowassa for his involvement in the scandal.

The commendable decision made by the Forth-Phase Government to invest in gas exploitation in Mtwara contributed to the diversification energy sources. Moreover, the powerful decision made by Magufuli to invest in Stiegler's Gorge is going to be a game-changer in ensuring reliable and affordable electricity. Despite a lot of criticism and discouragements, the Magufuli administration courageously started to implement the hydro-electric power plant which is expected to produce 2100 MW, which is about 150 per cent of the total electricity produced in 2015. The electric production address the electricity needs for Tanzania to industrialize and meet the national development vision 2025 of becoming an industrialized economy. The water reservoir lake for this purpose will be the largest man-made lake in Africa, with the

1,350 square km and 34 billion cubic meters of water. This project is going to be a landmark and game-changing one, once finished. The project, which is valued at the tone of US\$ 2.9 billion, is expected to make Tanzania self-sufficient in terms of electricity. It will also make electricity cheap and available for sale abroad. This will most likely enable Tanzania to fight against poverty.²⁰ The government expects to complete the project by 2022. No wonder the project faced many hurdles, since its inception during the First-Phase Government under Mwalimu Nyerere.

The sixth is connected to the land tenure system. Land availability and security in ownership are very important in industrialization. Any serious uncertainty in land ownership may keep away investors or may sometimes affect capital formation. Land title deeds are useful documents for collateral evidence, bank loan, or any other endeavour in search of capital. In Tanzania, the land is governed by two acts, namely the Land Act No. 4 and the Village Land Act No.5 of 1999. The Tanzanian land is categorized into three classes: general land, village land, and reserved land.

The Land Act No. 4 guides the general land and the reserved land. The village land is governed by the Village Land Act No. 5 of 1999, which recognizes the rights of villages to land held collectively by village residents under the customary law. The village land can include communal land and land that has been individualized. Villages have rights to the land that their residents have traditionally used and that are considered within the ambit of the village land under customary principles, including grazing land, fallow land and unoccupied land.

Under the two Acts, a person who wants to occupy land can apply and be issued the granted right of occupancy (urban area) or customary right of occupancy (village), subject to

²⁰ Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

fulfilling the required conditions. The terms of the right of occupancy are between 33 years and 99 years. The Land Act is very clear that a non-Tanzanian is not allowed to own land for investment. Instead, they are given either of the following: a derivative right under the Tanzania Investment Act, long lease, and joint ventures.²¹ Nevertheless, the derivative right has several challenges.

These include the reluctance of most banks in Tanzania to take derivative right titles as security since TIC has the right to re-acquire the property, mistiming of issuance of the title especially when an investor purchases a property from a Tanzania individual or registered entity, too long approval process at the local government and ministry level. Besides, there have been incidences in which part of the land may be revoked as a way to address conflicts between investors and villagers. The uncertainties in land governance make it risky for investors to acquire land. Moreover, some investors acquire land for speculative purposes, which raises conflicts as villagers attempt to get back the unutilized land. The Magufuli administration has addressed most of the land conflicts between and among farmers, pastoralists and investors by revoking some title deeds, conducting land titling, and surveying land, among others.

3. Current efforts for industrial development

The Magufuli administration has taken concerted efforts to promote industrialization as a development agenda. During the inauguration of the 11th parliament of the United Republic of Tanzania, President Magufuli highlighted three key issues for industrialization. First, the President promised that his administration would promote industries that produce goods for mass consumptions such as clothes, textiles and edible oil. Second, the government focuses on the energy sector, which is necessary for industrialization. Third, it enhances a conducive

21 Lovells H. (2016). Acquisition of Land by Foreigners in Tanzania.

business environment to promote industrial investment including building infrastructure, establishing the industrial development bank, strengthening the Tanzania Investment Bank (TIB), and reducing multiple taxes on locally-produced goods.

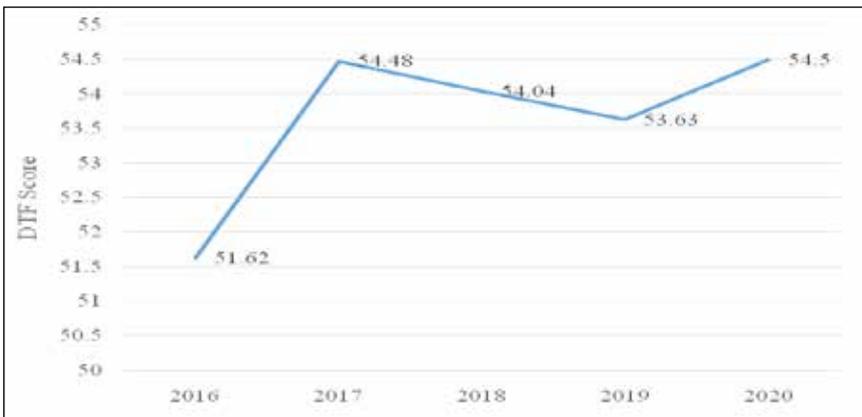
Given that the economy of Tanzania is predominantly agrarian, the Magufuli administration sought to bring rapid industrialization as a way to propel the country into the middle-income status and provide a solid basis for improved living standards.²² The Magufuli administration aimed to take a step further from agricultural dependency nation to industrial-based one, from a low-income country to middle-income one. Since 2015, one of the priorities was industrialization to foster economic growth and human development. The plans and efforts of the Magufuli administration on industrialization are reflected in FYDP II.

FYDP II, with the theme “Nurturing Industrialization for Economic Transformation and Human Development,” has laid out a long-term vision and strategy for industrialization. The plan outlines five priority areas: promoting industrial growth, fostering human development, improving the business environment, social transformation, and ensuring effective and efficient implementation. Effective and efficient implementation requires good governance. For industrialization to be successful, the government should address corruption and bureaucracy issues, which would otherwise retard the process. In line with this, the Magufuli administration has strictly and fearlessly fought against corruption and improved the environment for doing business by, among other things, addressing issues of land titling, removing multiple and unnecessary taxes and introducing online business registration.

²² Maliyamkono, T. and Mason, H., 2019, *Vivanda Moving Tanzania Forward*. TEMA Publishers, Dar es Salaam.

The World Bank Ease of Doing Business Reports (Figure 1) show that the Magufuli administration has taken considerable initiatives to facilitate a conducive environment to attract investments. For instance, in 2016, the Magufuli administration’s Property and Business Formalization Program was a landmark initiative to bring street vendors into the formal business sector.²³ In terms of cross border trade, the Magufuli administration reduced the time for both exporting and importing by implementing the Tanzania Customs Integrated System (TANCIS), an online system for downloading and processing customs documents. Besides, Tanzania made various reforms aimed to improve credit information systems and expanded borrower coverage from 4.97% to 6.48% of the adult population. In 2018, the Magufuli administration streamlined the permitting process by improving the efficiency of one-stop centres, reducing time for processing permit applications, and increasing the frequency of building permit council meetings from once per quarter to once per month. On a similar note, the Magufuli administration through BRELA made starting a business easier by launching online company registrations.

Figure 1: Ease of Doing Business in Tanzania



Source: World Bank Ease of Doing Business Reports

²³ World Bank (2016). Doing Business 2016: Measuring Regulatory Quality and Efficiency.

Despite fluctuation as shown in Figure 1, the distance to frontier (DTF) score has been improving. On a scale of 0 to 100 of DTF, Tanzania scored 54.5 in 2020 compared to 51.62 in 2016. On the DTF scale, 0 represents the lowest performance and 100 represents the frontier (or best performance). The score of 54.5 implies that, despite the current efforts of the Magufuli administration, a lot more needs to be done to enhance the ease of doing business. This is especially for the private sector, which is the main driver of the industrialization process.

The role of the government would be to win the confidence of investors and to attract them to invest in the country by creating a friendly and conducive environment for doing business. The Magufuli administration's FYDP II sought to address five key business regulatory challenges. These include the existence of high compliance costs in monetary terms and time in starting and operating a business, cumbersome pre-approval procedures to create rent-seeking opportunities, and the presence of a multiplicity and duplicity of processes. It also includes detrimental loopholes in some of the laws and regulations that are applied during inspections and the prevalence of high costs in enforcing the implementation of regulations, both at the central and local levels.²⁴

Another area to enhance an enabling environment for industrialization is modernizing and integrating the whole economy, including improvement in infrastructure for production and transportation, energy, hands-on skills, agriculture, and the growth of small and medium enterprises (SMEs). Infrastructure development is one of the areas in which the Magufuli administration has heavily invested. Examples of such infrastructural projects are the Mwalimu Nyerere Hydroelectric Power (2,115 MW) in Rufiji, the Standard Gauge Railway (SGR), the construction of the new Terminal III at Julius Nyerere International Airport

²⁴ United Republic of Tanzania 2018a, XI

in Dar es Salaam, the expansion of Mwanza airport, and the design of the Msalato International Airport in Dodoma. Others include the revival of the state-owned Air Tanzania Company Limited (ATCL) with the purchase of new planes, including a Boeing 787 Dreamliner, the expansion of ports, the expansion of the Karanga leather factory in Moshi (Plate 1), and the construction of bridges and roads. Regarding the road infrastructure, 2,624.27 km of tar roads have been constructed; besides, 1,298.44 km of trunk roads are currently constructed throughout the country.²⁵

To improve basic infrastructure for industrialization, the Magufuli administration has used fiscal measures to increase the development budget and to strengthen revenue collection. For instance, in the 2020/2021 budget, TZS 12.87 trillion (37% of the total budget of TZS 34.88 trillion) was set for development projects.²⁶ Comparatively, in 2015/2016, about TZS 5 trillion (21.7%) out of the total budget of TZS 23 trillion was set as the development budget. FYDP II envisioned increasing development budget to 40% of the total budget to finance priority projects. 37% of the total 2020/2021 budget set by the Magufuli administration for development is certainly encouraging.

25 Speech by the Minister of Finance and Planning, Hon Dr. Philip I. Mpango (MP), Presenting to the National Assembly the Estimates of Government Revenue and Expenditure for 2020/21.

26 HabariLeo (2020, June 12). *Bajeti EAC kutatuachangamotozawananchi*. <https://habarileo.co.tz/habari/2020-06-125ee2b12c488ed.aspx#>

Plate 1: A View of the New Karanga Leather Factory in Moshi



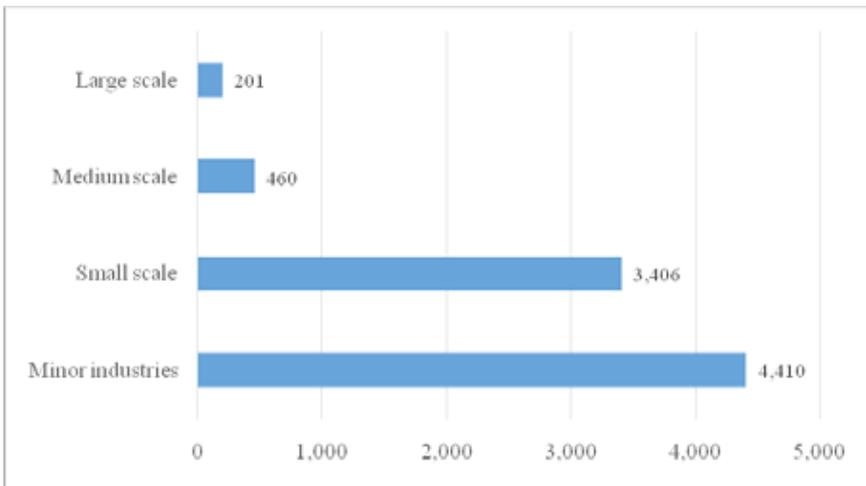
Source: Public Service Social Security Fund – PSSSF (8th June 2020)

In five years, the Magufuli administration has promoted industries by developing industrial parks, including TAMCO in Kibaha, Leather Industrial Park in Dodoma, and the Special Economic Zone (SEZ) in Bunda and Dodoma. It has also strengthened the research and technology centres of CAMARTEC, TIRDO, TEMDO and SIDO which have greatly improved the industrial sector through designing various machines, including a prototype for processing cashew nuts, sunflower, cassava, maize; a machine for making concrete bricks; and installation of biogas systems.²⁷ The Ministry of Industry, Trade and Investment (MITI) report on microeconomic performance in 2019/2020 shows that 8,477 new industries were established in various regions in the 2016-2020 period. Figure 2 shows that there have been several new industries, including large, medium, small-scale and minor industries. For instance, during the five years, the country

²⁷ PWC (June 2019). Sustaining the Momentum. National Budget Bulletin 2019/20

has witnessed 201 new large-scale industries, 460 medium-scale industries, 3,406 small-scale industries, and 4,410 minor industries. These industries have increased the employment rate by 20.2%, from 254,786 in 2015 to 306,180 in 2018. The established industries include manufacturing industries for construction (cement, tiles, and steel bars) and agriculture, in particular processing fruits, oil, and skin.

Figure 2: The Number of New Industries in the 2016-2020 Period



Apart from the establishment of new industries, the Magufuli administration has enhanced a conducive business environment for the existing industries. For instance, it introduced the new Animal Diseases and Animal Products Movement Control Regulations of 2018, which raised milk import fees from TZS 150 to TZS 2,000 per kilogram. This initiative has increased the production of the local dairy industries from 167,620 litres per day in 2015 to 194,335 in 2015. Besides, cement industries have increased their installed production capacity from 4.7 million tonnes in 2015 to 9.1 million tonnes in 2019. This capacity exceeds the local consumption requirement in the country, which has provided a room for increased exportation

to neighbouring countries such as Rwanda, Malawi, Zambia, DRC Congo and Mozambique. This puts Tanzania in the map of productive countries in East Africa.²⁸

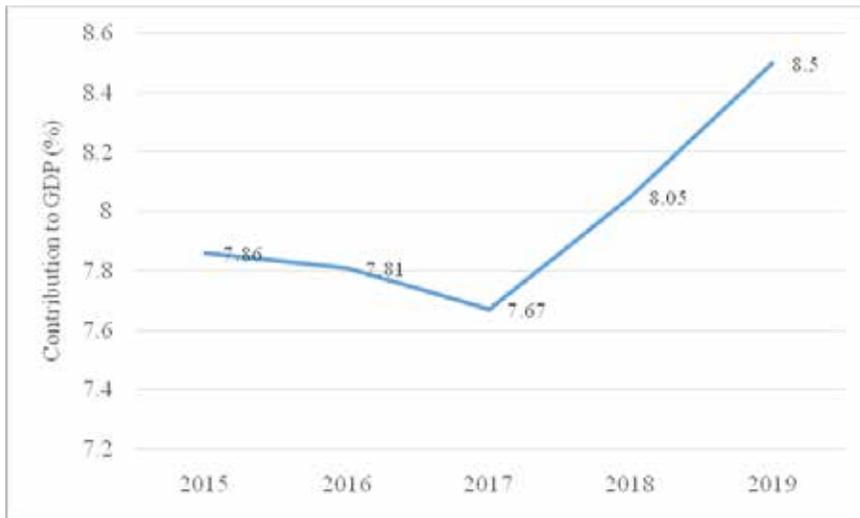
The industrial sector has been growing over the past five years. As shown in Figure 3, the contribution of the industrial sector to GDP increased from 7.86% in 2015 to 8.5% in 2019. Such an increase is attributed to an upsurge of industrial production activities. The growth of the industrial sector has shown a significant decrease in the importation of products from outside the country. The importation rate has decreased from all major importers including China, Japan, India and Kenya for the 2015-2019 period. For example, imported goods from China decreased from about USD 2.15 billion in 2015 to 1.99 billion in 2019. Besides, the value of imported goods from East Africa decreased from USD 322.8 million to 302.93 million in 2018.

The increase in production and the decrease in importation have enabled Tanzania to compete with neighbouring countries such as Kenya which was leading in selling its products within the East African Community. Enhancing local production is particularly essential in these confusing new coronavirus (COVID-19) times. The outbreak of COVID-19 has witnessed restrictions on international trade and transport services. With limited international transport, there will be an acute shortage of imported materials, especially from India and China. This calls for continuous improvement in local production, including the provision of incentives for investments and other support services.²⁹

28 URT (2020), Budget Speech for the financial year 2020/2021.

29 NBS, *Biasharakatiya Tanzania na Jumuiyambalimbali kwamwaka 2009-2019*.

Figure 3: Contribution of Industries to GDP



Source: National Bureau of Statistics

In terms of the policy framework for the industrialization drive, the Magufuli administration is reviewing the Sustainable Industrial Development Policy (SIDP 1996-2020) and the Integrated Industrial Development Strategy (IIDS 2025). The government through MITI has developed specific sectoral strategies selected based on the potential to develop a long value chain, create more jobs, and utilize locally available raw materials. These strategies are the Leather Sector Development Strategy, the Sunflower Sector Strategy, the C2C Strategy and the Pulses Roadmap.³⁰ The Long-Term Perspective Plan 2011/12–2025/26 was prepared to facilitate the achievement of Tanzania Development Vision (TDV 2025). It paved the way for three strategies, each covering five years: FYDP I (to establish the prerequisite infrastructure and energy necessary for industrialization); the Magufuli administration FYDP II (to promote industrialization as an engine for economic growth); and the forthcoming FYDP III (Competitiveness

³⁰ Kweka J. (2018). Monitoring Policies to Support Industrialisation in Tanzania; An update and policy recommendations.

led Export Growth).³¹ To spur implementation and address the coordination challenge, the government prepared a joint inter-ministerial program to support the implementation of the industrialization agenda. The program aimed to push the implementation of the industrialization strategy, for which each ministry will take action in its respective area. This represents an important step towards improving coordination in support of the industrialization agenda.

The foregoing discussion shows that the Magufuli administration has achieved a lot in terms of fostering industrialization for the first five years. As discussed, some of the key factors for industrialization include the good transport network (roads, railway, airways, ports) and the availability of adequate water supply, electricity and communications. Other factors include the availability of a skilled and healthy workforce as well as the security of the country to allow stable industrial productions. In general, the Magufuli administration has been emphasizing unlocking the potential of industrialization in the country by strategically investing in improving and promoting a good transport network and stable supply and distribution of electricity. It has also focused on strengthening the service provision sector, which is responsible for training a healthy and quality workforce. Besides, the country has stable security, skilled workforce and health services; several health facilities have been constructed. Furthermore, the National Health Insurance Fund (NHIF) has increased the number of its products to ensure wide coverage of health services to a wider population. Drawing on such efforts, many achievements have been registered in the industrial sector.

Since Tanzania has transitioned to the lower-middle-income economy in July 2020, our challenge is to ensure continued

31 Tanzania Development Plan, Vision and Investment Priorities to Achieve Middle Income Status by 2025 <https://www.mcci.org/media/154357/tanzania-developemnt-plan-booklet.pdf>

growth so that the country does not fall back to the low-income status. This is discussed in more detail in the following section.

4. Industrialization in the transition to the middle-income economy

Tanzania Development Vision (TDV 2025), which was developed in 1999, sought to move the country to the middle-income economy status by 2025. Building on the previous administrations, the Magufuli government facilitated the country to transition to the lower-middle-income economy in early July 2020. In the course of this transition, the country will have to undergo thoughtful changes in its economic structure. While the industry has been the main driver of structural change in many economies, the Tanzanian situation is different.

Its economy is predominantly agrarian, employing about 70% of the workforce. For instance, while the manufacturing sector in other low and lower-middle-income economies employed 12-14% of the workforce in 2010, the Tanzania manufacturing sector employed only about 2.7%.³² Although this rate has recently increased to 3.1%, it is relatively low. To achieve equitable and sustainable development, there is a dire need to promote industries that create additional job opportunities for the working class as envisaged in FYDP II. There is also a need to review the training system for the industry, which has always been complained about the mismatch in skills between the graduates and the requirements of the labour market. This section discusses policy decisions that can promote the manufacturing base, foster industries without smokestacks, promote private sector investments, emphasize vocational and technical skills, promote commercial agriculture, and other relevant requirements for industrial growth. Although Tanzania largely depends on minerals and tourism for

³² Page. J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

foreign exchange earnings, there is a need to expand the manufacturing industry. Minerals and tourism are prone to frequent fluctuations, and they are based on finite resources, which threaten their sustainability. The efforts of the Magufuli administration to revive the manufacturing industry as spelt out in FYDP II are particularly encouraged. Given the stiff competition from neighbouring SADC and EAC countries, mainly Kenya and partly Uganda and Rwanda, which have plans to develop their manufacturing sectors, there is a need to examine the potential products for growth in which Tanzania has a comparative advantage. As spelt in FYDP II, potential products could include the development of iron and steel plants due to the abundance of iron and coal from Liganga and Mchuchuma.³³

However, to be successful the steel and iron plants depend on associated transport infrastructure such as the standard gauge railway in and around the Mtwara corridor. Other potential industries in which Tanzania has a comparative advantage include garment and textiles due to the availability of quality cotton and leather products due to large stock of cattle and other animals. Others include food and other agro-processing industries due to increasing agricultural production and productivity, edible oils, tea and coffee, cashew nut and cocoa; sugar industry as well as wood and furniture. For instance, despite having the third-largest stock of cattle in Africa, Tanzania's production of leather and leather products is limited. Nearly three-quarters of locally produced raw hides and skin are exported, and 95% of the remainder is exported after limited processing.³⁴ In this regard, the initiative of the Magufuli administration to promote leather industries in Karanga Moshi, as well as the special leather product zone in Dodoma, is commendable.

33 Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

34 Page. J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

Related to manufacturing are industries without smokestacks such as food processing and horticulture.³⁵ Industries without smokestacks are light and green manufacturing that have prospects for job creation, strong linkages to the agricultural sector, and potential for exports and private sector investment. In Tanzania, industries without smokestacks have begun to emerge especially in avocado and other horticultural products. Examples are the Rungwe Avocado Company (RAC) and KUZA Africa in Mbeya, which offer an export opportunity of avocado. Focusing on these industries could offer a unique advantage in global trade.³⁶

Since most Tanzanians are still employed in subsistence agriculture, another important aspect is the promotion of commercial agriculture for industrial growth. Agriculture provides 100% of food needs for the productive workforce, 70% of all employment, nearly 30% of GD, and about 25% of foreign earnings, which can be used for the importation of industrial technology. Moreover, agriculture provides 65% of industrial raw materials. This makes agriculture to be the main and one of the most important sources of raw materials such as tea, coffee, cotton, tobacco, sugarcane, sisal, sunflower and cashew nuts for industries. Among the existing manufacturing industries in Tanzania, the agro-processing is the most dominant sub-sector. Agro-processing accounts for about 55% of the total manufacturing output and about 65% of the total employment in manufacturing. About 80% of agro-processing industries are small, and they mostly serve the domestic market.³⁷ During the first term of the Magufuli administration, the agro-processing sub-sector has expanded; 189 agro-industries have been established. For instance, the increase in cashew-nut production from 155,416 tons in 2015/16 to 320,000 in 2019/20 has increased heavy and medium-sized

35 Page, J. (2018). 'Industrial' policy in the 21st century. UNU-WIDER Blog

36 Salonen, H. (2018). The ins and outs of African industrialization. UNU-WIDER Blog

37 Page, J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

processing industries from 22 in 2015/16 to 31 in 2019/20. The new industries located in Mtwara (6), Pwani (2), and Dar es Salaam (1) have an installed capacity of processing 25,000 tons per annum. Similarly, sisal production has contributed to the establishment of 11 heavy industries with an installed capacity of over 7,000 tons per annum and 70 small-scale sisal processing industries with the capacity of over 7,300 tons per annum. These agro-industries have produced about 40,000 employment opportunities.³⁸

While agriculture is the main source of raw materials for industries, it also provides markets for industrial products such as equipment, fertilizers, and other inputs. Besides, agricultural surplus and savings are useful for industrial investment. What we note here is that there is a reciprocal relationship between agriculture and industries. Like agriculture, industries provide markets for agricultural products and provide necessary inputs to the agricultural sector, including machines, pesticides, fertilizers, packaging, and transport facilities. This means that, for a strong industrial sector, it is important to have a well-performing agricultural sector. However, the current subsistence production with traditional technology cannot guarantee a sustainable supply of food and raw materials for the industry. Thus, it is essential to promote commercial agriculture for three main reasons: to provide the required raw materials to industry, food for the industrial workforce, and the market for industrial products.

Another equally important aspect of industrialization is the modernization of training and the education system. Since heavy manual-labour has been replaced by automation and clerical work by computer-based systems, jobs in industries increasingly require skills and competencies, which cannot be learned on the job as was the case in the past.³⁹ However,

³⁸ Budget speech 2020/2021

³⁹ Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

the current education systems, which was inherited at independence does not produce skilled and competent graduates. The Inter-University Council for East Africa graduate survey of 2014 showed that 61% of graduates from Tanzania were lacking in 'job market skills.' Besides, such graduates lacked experience in teamwork, leadership and general enterprising skills, which were considered essential in the labour market. There is a need, therefore, to reconsider our education and employment systems. The current employment system, especially in the public sector, in which the majority of graduates seek, gives weight more to certificates than to skills and experience. This situation makes a good proportion of youths to use all means necessary to obtain certificates rather than to attempt gaining skills and competences.

The envisaged industrial development will not happen without the involvement of the private sector. The private sector is recognized as the main vehicle for making investments in industries while the government focuses on large capital projects, infrastructure and an enabling business environment. The government should continue to improve the business environment and increase its engagement with and support the private sector to invest in industries. Small and Medium Enterprises (SMEs), which dominate agro-industries, should be supported to be more productive on a sustainable basis and be competitive in the international markets.

International markets are important if we are to increase export earnings from industrial products. To succeed, the government has to pursue an active foreign policy. It is widely believed that no nation will prosper in the 21st-century world if it seeks total self-sufficiency. It is thus important for the government to sustain its international relations and links for long-term prosperity and growth.⁴⁰The government should tap huge domestic and regional markets that would

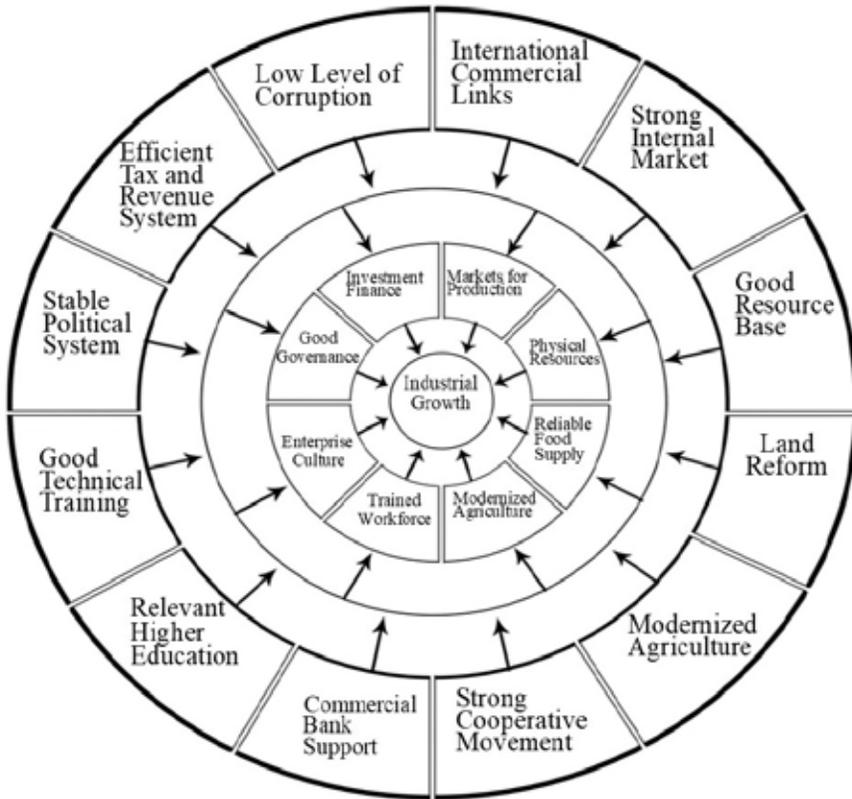
40 Maliyamkono, T.L. and Mason, H., 2006, *The Promise*. TEMA Publishers, Dar es Salaam.

consequently attract more investors and, at the same time, allow economic growth, offer competitive employment to citizens, and reduce the importation of goods and services. Hence, the country would spend less foreign currency on importing goods. As mentioned above, engagement with the private sector and the establishment of various institutions is essential. Some of the existing platforms for engagement with the private sector include the Tanzania National Business Council (TNBC), Tanzania Private Sector Foundation (TPSF), Confederation of Tanzania Industries (CTI), Tanzania Chambers of Commerce, Industry and Agriculture (TCCIA), and the Agriculture Council of Tanzania (ACT). The purpose of such institutions is to create an enabling environment to realize the industrialization agenda.

Besides the private sector's involvement, vocational and technical skills, agriculture and markets, other requirements for industrial growth are good governance, quality human resources, financial services, land tenure, peace and security, economic diplomacy and improved infrastructure (transport, power, communication, water, and sanitation). What is required is not only to ensure that all the requirements are in place but also to ensure that they are developed in parallel. If some of the requirements are missing, the industrialization process may be retarded. Integration of all requirements is essential if industrialization is to meet its full potential.⁴¹ Figure 4 summarizes the nature of integration and interaction of some of the elements for rapid industrial growth.

41 Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

Figure 4: Responsible Sectors for Supporting Industrial Development



Source: Adapted from Maliyamkono and Mason (2019; 73)⁴²

The inner-circle in Figure 4 represents the elements that are immediately and directly relevant to the industrial strategy. The outer circle represents the less immediate but essential elements in facilitating rapid industrial growth. Indeed, the industrial sector depends on good performances by other sectors. This is one of the main reasons that the Magufuli administration, in line with FYDP II, has spent the first five years to establish and strengthen the necessary infrastructure and other requirements for rapid industrial growth.

⁴² Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

As mentioned above, some of the basic requirements addressed include power production, roads, railways, security, communication, and training through providing basic education and building markets through strategic revenue projects. It is envisaged that the forthcoming Third Five Year Development Plan 2021/22 – 2025/26 (FYDP III) will focus on both domestic and export markets, which are necessary for the increased agricultural and industrial products. The Magufuli administration has already started to strengthen the transport and communication infrastructure as a means to open up markets. Some notable efforts are the expansion of the Mwanza International Airport for the exportation of fish products and the expansion of the Kilimanjaro International and Songwe airports for the exportation of horticultural crops. Besides, the development of the SGR for transporting goods within the country as well as to and from locked countries such as Uganda, Rwanda, Burundi, Malawi, Zambia, and the DRC is worth mentioning.

For more rapid and stable industrialization, efforts need to be directed towards developing policies that will sustain our economic growth. However, Tanzania has had industrial policies since independence. What was lacking was dedicated leadership for effective implementation. As experienced during the past administrations, having policies without dedicated leadership makes all efforts for industrialization ineffective. This is where the Magufuli administration has demonstrated a significant difference from the previous administrations. Dedicated leadership is needed to back up the industrialization agenda by protecting domestic markets, opening up regional markets through international trade, and creating a conducive investment environment for the industrial sector.

5. Conclusion

After nearly 60 years of independence, Tanzania has not yet achieved a robust industrial sector. Accordingly, the Magufuli administration has since coming to power in November 2015 created an atmosphere of rapid progress to achieve a semi-industrialized economy by 2025. Over the past five years, the Magufuli administration has undertaken various efforts and reforms to revive the industrial sector. The efforts and reforms of the Magufuli administration have established 8,477 new industries in about four years. Based on this, we can reasonably conclude that indeed President Dr Magufuli is a 'Game Changer.' Nonetheless, our conclusion does not imply that Tanzania has reached its targets to the semi-industrialized economy. We argue that, given the pace of the Magufuli administration, Tanzania has the potential to achieve its aim of rapidly becoming a semi-industrialized country by 2025. Indeed, at present, the industrial sector is heading towards a positive direction. Compared with the previous administrations of the last two decades, there is evidence for new dynamism.⁴³

Since industrial plans and strategies of the Magufuli administration are outlined in FYDP II, which sees industrialization as a tool for human development, there is a need to emphasize creating more employment opportunities. This can be achieved by promoting and supporting such industries that can create the urgently needed jobs. Besides, as outlined by Maliyamkono and Mason, there is a need to meet six other basic conditions for rapid industrialization.⁴⁴ The first condition is to ensure an integrated economy, covering and keeping all important sectors such as infrastructure, agriculture, energy, health, education, SMEs, trade and tourism.

43 Page. J. (2016). Industry in Tanzania: Performance, prospects and public policy. WIDER Working Paper 2016/5.

44 Maliyamkono T. and Mason H. (2019). *Vivanda Moving Tanzania Forward*. Tema Publishers, Dar es Salaam.

This is because the development of the manufacturing sector, for instance, is not mutually exclusive of other sectors. For a robust and sustainable economy, the various sectors have to reinforce each other, like, for example, agriculture provides food for the workforce, raw materials for industries, and a market of industrial products. Indeed, successful industrialization requires good governance, effective workforce, resources, capital, markets and integration of other factors such as electricity, transport infrastructure, extension services and stable financial institutions.

This implies that effective implementation of the industrial agenda requires optimal interaction of various factors. The second condition is to continue the fight against grand corruption, which is one of the main obstacles to development. The third condition is to extend development to all parts of the country and ensure connectivity. Rural areas cannot be developed at the expense of urban areas and the vice versa.

Failure to address the geographical imbalance in development would have not only social but also economic and political consequences. The fourth condition is to reconsider the training and education system to match the needs of the labour market. The fifth condition is to promote and nurture small-scale manufacturers to increase their competitiveness against imported products. The last condition is to create and nurture a strong domestic savings and investment culture to avoid foreign domination of the major parts of the economy.