

The Impact of Current Industrialization and Development Process on Health Sector in Tanzania

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ABSTRACT: The aim of this paper is to explore the positive impact of the current industrialization and development process on the health sector. It is descriptive in nature. It explores the historical background of industrialization in Tanzania. It also reviews the new health policy and sorts out the positive impact of industrialization on the health sector. The paper demonstrates that progressive industrialization is a necessary condition to sustain the multi facets achievements so far recorded in health sector in Tanzania.

KEY WORDS: *Impact, industrialization, development, health sector.*

I. INTRODUCTION

Industrialization refers to the course of transition from the preceding dominantly agricultural society towards an industrial one. In the course of this transition large scale industry becomes the best means of production and the most efficient economic catalyze. This is characterized by the simplification of work to make it more manageable(rationalization), the replacement of manual labor with machines(mechanization), and the shift of control, correction and feedback activities from humans to machines(automation).Rationalization, mechanization, and automation usually go hand in hand, with the concentration of labor in larger working units. Concurrent with a shift from manual-based agriculture to large scale industry, far reaching changes take place in almost all spheres of life(Lappare,1992). Industrialization plays a vital role in the economic and social development of nations. History shows that modern industrialization started off in the 18th century Industrial Revolution in Great Britain and spread all over the north of America and other parts of the Western Europe in early 19th century. These parts of the world broke the vicious cycle of poverty by targeting higher level of industrialization, rather than remaining bound to hand-manufactured agricultural productions. Industrial development has had an important role in the economic growth of countries like China, the Republic of Korea (South Korea), Taiwan, and Indonesia (Matleena,2002).

In Africa, Mauritius, under a series of coalition governments, moved from agriculture to industrial manufacture. It implemented trade policies that boosted exports. When outside shocks hit, such as loss of trade preferences in 2005, and overwhelming competition from Chinese textiles in the last 15 years, this country was able to adapt with business-friendly policies. From being a mono-economy relying on sugar, the island has nowadays diversified its national income, extending it to tourism, textile, financial services and high-end technology (Mbae, 2014).

In Nigeria the process of industrialization generated employment. It reduced poverty in the country, increased industrial output and improved the living standards of the population (Eugene, 2015). Ethiopia has achieved outstanding economic success in recent years because of the process of industrialization and is regarded as a leader in Africa (Yu Zheng et al., 2017). Industrialization cannot be considered as a luxury, but a necessity for continent's development (Zuma quoted by Mbae, 2014).

Modern industrialization, along with the increase of Gross Domestic Production (GDP), has impacted the social development of peoples. This rise in income raises the standing of life for ordinary people (Saif,

2018). Throughout the world, industrialization has indeed become the magic word of the mid twentieth century.”(Shitidas, 2019)

Health is one of the social components which have been affected positively by industrialization. It is obvious that there is a mutual dependence between economic growth and health improvement, in the sense that when the economic development is achieved, the health sector will be developed as well, and a better health policy is conducive to harmonious economic growth. Improving the health of citizens can directly result in economic growth, because there will be more healthy labor force(Collins, 2015).

The United Republic of Tanzania, under its current government, has planned to achieve an industrial revolution by 2025. The current government is determined to turn Tanzania into a middle-class economic nation by focusing industrial development. This process of industrialization has already been triggered since 2015. The questions that can be raised are: to which extent do these first steps into industrializing Tanzania impact the health sector in the country? Has this sector been left aside like a spare tyre of a car or is it also a target in the scope? These questions express the problem this paper would like to tackle. Far from being a political perspective, the content of this paper constitutes a descriptive analysis of the industrial ground for the development of health sector as a construct of social growth. This paper is a contribution to the development of social studies based on public health concerns in Tanzania. It is structured in three major points. The first point is a historical glance at industrialization in Tanzania. The second point scrutinizes the Tanzania New Health Policy. And the last point demonstrates and assesses the amplitude with which public health issues have been involved in the national strategic plan destined to elevate Tanzania to the level of an industrialized nation.

II. HISTORICAL OVERVIEW OF INDUSTRIALIZATION IN TANZANIA

Industrialization in Tanzania has been characterized by shifts in role from state-led process to private sector-led initiatives. Up to mid-1960's, as reflected in the first five year-development plan (1964-1969), the industrial development was overridden by the private sector. From 1967 up to mid-1980's, as an application of African socialism (Ujamaa ideology propounded by the late Mwalimu Julius Kambarage Nyerere), the state took over ownership of all industries and led the process of industrial development. This is evident in the Second and third five year-development plans (respectively 1969 – 1974 and 1976 – 1981). Under the Economic Recovery Program (ERP) applied between 1986 and 1989, the private sector was given back the liberty of owning industries and controlled the industrial development in the country. This trend came to be reinforced by the Economic and Social Action Program (1989 - 1992), which finalized the process of liberalization and privatization in Tanzania. Industrial development since then entered definitely the agenda of the Sustainable Industrial Development Program (SIDP) of 1996-2020 and the Integrated Industrial Development of 2011(Msami and Wangwe, 2016).

For the case of pharmaceutical industries, the earliest pharmaceutical manufacturing firm in Tanzania seems to have been Mansoor Daya Chemicals Ltd, a privately owned firm. Mr. Daya, a pharmacist, began with a retail pharmacy in Dar es Salaam in 1959. He set up his own firm in 1962, originally in a small godown, later moving to his current production site. In the 1960s and early 1970s, the Nyerere government in Tanzania turned to the promotion of industrial development through public investment. It was also a period of state-led industrialization, including public sector investments in manufacturing plants. Two public sector pharmaceutical firms were established to provide essential medicines to a rapidly expanding public health sector, Keko Pharmaceuticals was opened as a production unit within the Ministry of Health in 1968 to supply tablets, capsules and large-volume parenterals for distribution to public sector health care facilities. Tanzania Pharmaceutical Industries Ltd (TPI) began as a public enterprise in 1978 with assistance from the Finnish government. The Shelys Pharmaceuticals company began production in 1979 and in 1984, it was bought by the Tanzanian Sumaria Group of companies and built up into the largest pharmaceutical firm in the country. When Tanzania was hit by economic crisis in 1980s, as a result, the two government firms, Keko and TPI, ceased to be able to compete with imported medicines, lost their markets, and closed in the early 1990s. However, the two private pharmaceutical producers, Mansoor Daya Chemicals and Shelys survived the economic crisis years. Shelys in particular was built up into a successful business as the largest pharmaceutical firm in Tanzania and expanded exports to the region. Another privately owned local firm, Interchem Pharmaceuticals was set up in 1989 in Moshi, part-owned by the IPP group of companies(Mackintosh, 2016).

III. THE NEW NATIONAL DEVELOPMENT PLAN

In 2016, a new national five year-development plan (2016 - 2021) was launched in Tanzania. It is commonly known as *Tanzaniyaviwanda*¹. This plan addresses industrial revolution for economic growth as well as poverty reduction by improving livelihoods in a way that will transform society and its people. It aims at transforming Tanzania into a middle-class economy and semi industrialized country by 2025, characterized by high quality

¹ Swahili expression for 'Industrial Tanzania'

and sustainable livelihoods, peace, stability, unity, good governance, the rule of law, an educated society, strong, and competitive economy.

Among issues addressed in the five-year development plan, there is that of pharmaceutical industries. The plan targets pharmaceutical industries in so far as industrial production of health supplies can improve health care, which is necessary for a healthy and productive population. The plan notes that, local production could enhance access to medicines. The share of local supplies on the domestic markets was declining. It has dropped from 35% in 2009 to less than 20% in 2015, and exports have been flat-lining. Even though the East African health supplies market was large and expanding, it has not benefitted locally based manufacturers of pharmaceuticals. There is high demand for items such as medicines, diagnostic test kits (such as syringes and needles, gloves and cotton wool, infection control items), medical equipment (such as microscopes, blood pressure machines, glucometers), and laboratory supplies (such as reagents and slides, disinfectants; bed nets, bed sheets, and medical furniture).

The local share of medicines market has been declining because of barriers related to custom policies, a prohibitive tax structure (on one hand discouraging local production and, on the other, encouraging imports), increasing price-based competition from imports, most of which having been subsidized in their countries of origin, power and infrastructure constraints, skills requirements, delays in local registration, and unfavorable procurement procedures. Other challenges facing the pharmaceutical industry include the constant refinement of products required to meet competitive and regulatory standards and low quality of locally manufactured health-related items.

This ongoing national development plan intends to strengthen both primary and referral health systems, to endow district, regional, and referral hospitals with modern equipment, better trained and training staff, and more efficient management of non-communicable diseases. It aims also at improving working environment for health personnel, and speeding up comprehensive health care system focusing proactive preventive medicine and timely effective control of epidemic diseases, and provision of quality health insurance so that citizens can participate effectively in productive economic activities.

So far, Tanzania has made significant progress in reducing child mortality, combating malaria, addressing non-communicable diseases, just to mention a few. These gains must be consolidated and sustained. However, in some other areas, e.g. maternal mortality, progress has been slow and more efforts are required ("www.mof.go.tz", 2019).

IV. THE NEW NATIONAL HEALTH POLICY

The current government focuses industrialization promotion for economic transformation and social development. As the country strives to attain a middle-income goal, the new health sector policy is expected to give more strategic attention to the quality of health services in tandem with the pursuit of universal access. Health issues should occupy the center of any policy. Moreover, changes occurring in the regional and international health policies require a change in domestic strategies so as to achieve sustainable health services goals at large.

The 2017 New National Health Policy (and Its Implementation Strategy) was needed in order to address the following specific health sector weaknesses and challenges: a) unavailability of medicines, medical supplies, and modern equipment in health facilities continues to affect provision of quality services. b) Unskilled human resources for health in various places have remained chronic at all levels. c) Pace of reduction of maternal mortality does not meet the Millennium Development Goals / Sustainable Development Goals as expected. d) Continued changes in society lifestyles and behavior have contributed to increase in communicable and non-communicable diseases, accidents, and disasters while existing services do not sufficiently have the capacity to respond to that. e) Underfunding of the health sector makes it difficult to achieve international protocols and resolutions to which Tanzania is also party and signatory e.g. Abuja Declaration. f) Protecting the people especially the poor and vulnerable groups in accessing the health services in terms of financial barriers. g) Changing from input base to output base i.e., performance oriented to get value for money for Investment ("www.nhp.gov.in", 2019)

V. INDUSTRIALIZATION AND HEALTH SECTOR IN TANZANIA

The impact of the current industrialization and development policy on the health sector in Tanzania is rooted from the results of the research that was conducted in Tanzania and Kenya from 2012 to 2015, the project studied the supply chains of essential medicines, medical equipment, and supplies from local industries and imports into the health system in Tanzania and Kenya, the results indicated that conditions for domestic manufacturers were becoming more competitive, most manufacturers pointed to a growing need for technological advancement and innovation, in return the researchers began to craft a set of policy proposals for each country that could both improve health care and stimulate local industry (Mackintosh, 2016). In response to that the Tanzanian government integrated the recommendations of the research into its national five year development plan (2016), it was easy to integrate the recommendations into the policy because the researchers

shared the results with policy makers, government officials and other stake holders through round table discussions, seminars, public lectures e.t.c(Madeline,2017).Among issues addressed in the National five- year strategic plan was the issue of pharmaco-industries, The Plan targeted pharmaceutical industries because industrial production of health supplies can improve health care, which is necessary for a healthy, productive population. The Plan noted that, local production could enhance access to medicines(pp.49) but procurement and tax regimes in Tanzania specifically disadvantaged local firms in pharmaceuticals, as compared to other industrial sectors, taxes and duties on imported inputs therefore specifically disadvantaged local pharmaceutical manufacturers by raising their materials costs of production(Paula,2016),then in order to address this matter, the Ministry of Health and Social Welfare in collaboration with the Ministry of Industries and Trade, Tanzania Investment Center and the Medical Stores Department have prepared the guideline that shows the investment opportunities in the pharmaceutical industries, the guideline has attracted some investors in the country and eight(8) pharmaceutical industries are under construction, these companies are **Kairuki Pharmaceuticals, Biotech Laboratories, Vista Pharma, Afravet/Novel Vaccines and Biological, Hester Biosciences Africa, Afrikana Pharmaceuticals, Alfa Pharmaceuticals and Pharm Access**. This was a government strategy to make sure that it increased the internal production of medicines and drugs as well as increasing the availability and supply of medical related equipment, hence addressing the challenge of lack of medicines and medical equipment as stipulated in the new health policy(pg.20), relying on importing drugs and medical supplies is too expensive, currently Tanzania imports 94% of its medicines outside, when these industries will be completed will also create jobs and reduce governments expenditure on importing drugs and in return will improve health, Improving the health of citizens can directly result in economic growth, because there will be more healthy labor force (Collins, 2015).

VI. DEVELOPMENT PARTNERS GROUP FOR TANZANIA AND HEALTH SECTOR

In supporting the government of Tanzania's new strategic development plan towards improving health, the development partners group for Tanzania, which include Denmark, Canada, Ireland, Switzerland, United Nations, UNICEF², UNFPA³ and the World Bank have continued to support efforts against HIV⁴, Malaria, Tuberculosis, and reduce both maternal mortality deaths and infant mortality deaths by injecting 531 million US dollars in the health basket fund (HBF), this fund is to support the budget of the Ministry of Health in fighting against the infectious disease for a period of ten years ("www.tanzaniainvest.com", 2019). In fighting against **malaria**, the government ensures that there is adequate supply of antimalarial to the health facilities and medical stores department, and people have been insisted on testing for malaria before taking drugs so as to prevent drug resistance, in order to prevent malaria the government provides insecticide treated nets to pregnant women for free, and to all children under 9 months of age, and it also provides to primary school children, the government also insisted all pregnant women and children under the age of 5 years to use nets, in order to kill mosquito larvae, the government bought biolarvicides⁵ and spray pumps and these were supplied to five regions in the country with high prevalence of malaria, these regions are Geita, Kigoma, Kagera, Lindi and Mtwara, all these are measures to prevent malaria, and in 2018 the WHO (World Health Organization), represented an award to the Ministry of Health in recognition of the achievements made in malaria control and strong government leadership shown in mobilizing external and domestic resources to support the fight against malaria (www.reliefweb.int, 2019) while the fight against **HIV/AIDS** also has taken a good step whereby, voluntary counselling and testing services are being provided to all people free of charge, the number of people voluntarily testing have increased and also centers for testing, this is because there are campaigns countrywide to sensitize people to test for HIV (index client testing). In order to prevent mother to child transmission of HIV (PMTCT), pregnant women are given voluntary and counseling tests services for HIV, and if found to be HIV infected, anti-retroviral therapy to suppress viral load is initiated, in Tanzania anti-retroviral therapy is provided free. In order for the government to attain the **90-90-90 goals (UNAIDS resolution)**-that means, by 2020 the coverage of the national response HIV and AIDS⁶ will have improved to ensure that 90% of all people living with HIV know their HIV status, 90% of all people diagnosed HIV infection receive antiretroviral therapy (ARV) medication and 90% on ARV have viral load suppression and 100% of pregnant women eligible for PMTCT will receive treatment, the government launched a nationwide campaign for HIV testing, the campaign was launched by the prime minister in June 2018 and it was named "*my pleasure*", the aim was to encourage all Tanzanians especially men and youth to go for testing and start early treatment, if found HIV positive should start treatment immediately, men were encouraged to turn out because their initiatives to such campaigns is usually low compared to their female counterparts and men have poor health seeking behavior

² United Nations International Children's Emergency Fund.

³ United Nations Population Fund

⁴ Human Immunodeficiency Virus

⁵ Insecticides that kill the larval stage of an insect

⁶ Acquired Immunodeficiency Syndrome

which limit them for accessing proper information and HIV prevention services, the government also have been making campaigns countrywide to prevent new HIV infection and reinfection by insisting the use of condoms and avoiding unprotected sex, this is done through social media, radios ,stickers, banners ,television, all these arise the societies awareness on preventive measures against HIV,in a report released in April 2019 by the National Bureau of Statistics revealed that Tanzania has made a progress towards achieving the 90-90-90 targets of the United Nations Program on HIV/AIDS(*Xinhua,2019*).In fighting against **tuberculosis**,the disease is fully integrated into the primary health care services and patients with tuberculosis are provided with free medication, the government also has purchased genexpert⁷ machines to diagnose tuberculosis in a very short time of approximately 2 hours as compared to microscopes which could use up to 48 hours to diagnose the disease, this has helped early initiation of treatment, preventive measures against the disease have been done especially in mining areas, including educational campaigns on tobacco use and their side effects(“*www.moh.go.tz*”,2019).All efforts done by the Tanzanian government in collaboration with development partners group in fighting against HIV/AIDS,Malaria and Tuberculosis aim at having a healthy and productive population that participate fully in social and economic activities that will move Tanzania into a middle income country.

VI.ECONOMIC GROWTH AND HEALTH SECTOR

Since this current industrialization and development plan has been being implemented, the Tanzanian economy has continued to grow each year.The national income has grown at the rate of 6.8% in the year 2018 compared to 5% growth rate in the year 2017. The health sector has grown with 13.2% growth rate during the financial year 2017 / 2018,with a notable budgetary increase to the ministry of health(“*www.mof.go.tz*”,2019).As far as the new health policy is concerned,using domestic sources of income the government has managed to construct new 67 district hospitals, 352 health centers and as well as rehabilitating regional and referral hospitals and also supplying them with modern equipment such as x-ray machines, CT⁸scan machines, drugs and other modern equipment. The construction of new health facilities, has in turn brought closer health services to people, especially in rural areas and pregnant women can now attend and deliver safely with skilled birth attendants, this is a very positive impact as it targets reduction of bothmaternal and infant mortality rates as well as ensuring universal health coverage to people, which is the implementation of challenges addressed in the new healthpolicy(pg.20).Using domestic sources of income as product of industrialization and development in the country the government has made efforts in fighting epidemics like Ebola, ; the Ministry of Health has bought and installed “Handheld and Walkthrough thermal scanners” in all borders of the country, and to all airports and harbors ,the aim is to easily detect and diagnose any person with Ebola who enters the country. It has also trained health personnel on dealing with Ebola outbreak in areas bordering Uganda and Democratic Republic of Congo, the government has also supplied equipment for diagnosis of Ebola virus in three central pathology laboratories in the country, it has also continued to cooperate with the international community and educate the society through banners, stickers and local media on preventive measures against Ebola(*www.moh.go.tz,2019*).Despite all these efforts, maternal mortality rate is still a concern in Tanzania. In November 2018 the government initiated a campaign to reduce maternal and infant mortality by engaging the regional and local authorities, lack of access to health facility, poverty, lack of education and poor provision of medical services in the public health bodies were key factors that drive maternal death, also lack of accountability among hospital managements, shortage of skilled medical personnel attributed to maternal deaths. In order to address the challenge, family members and society should effectively participate on the reproductive health so as to acquire knowledge on how to prevent further deaths among women and children. local government were also needed to improve infrastructure such as roads to facilitate various interventions like distribution of essential medicines and medical supplies(*Namkwahe,2018*).

VIII.CONCLUSION

Since the adoption of the industrialization and development plan, the government of Tanzania has made a notable step in improving the health sector; it has continued to make efforts to bring health services closer to people especially in rural areas by constructing and rehabilitating health facilities as well as strengthening its referral system by supplying the referral hospitals with modern equipment, bringing health services closer to people is important in targeting the reduction of maternal and infant mortality rate which are among the millennium development goals.

Tanzania being a poor developing country still depends on donors to support its budget, as seen that the development partners group for Tanzania have continued to support the budget of Ministry of Health in fighting

⁷ modern machine to diagnose tuberculosis.

⁸ Computed topography

infectious diseases like HIV/AIDS, malaria and tuberculosis, which are also millennium development goals, therefore good economic policies are needed towards making Tanzania an independent country economically. The industrial sector is a key to development as it increases the national income and creates employment, as the national income increases then health services are also improved, in return builds a healthy population and society that participates fully in industrial activity, in other words industrialization and health sector depend on each other, the process of industrialization should be a continuous process as far as a society exists. Also good development and health policies adopted by Tanzanian government have been important towards achieving a continuous and sustainable social growth, as seen how the revised industrial policy on pharmaceutical industries has attracted new investors in the industry. Despite all this, Tanzania still has a big problem of unemployment in the health sector, more human resource for health are needed, and this should be the priority now and in future especially in rural areas, more efforts are still needed in improving the health sector in Tanzania in terms of budgetary increase for health sector especially in biomedical research. China, for instance, has developed rapidly in the health sector because it utilizes about 20% of its GDP in biomedical research (Collins, 2015).

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