

Industrialisation, Inequalities, and Inclusive Development: Lessons from Global Experiences

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This policy brief summarises key policy discussions from the ISID-UNU-WIDER Policy Roundtable on *Industrialisation, Inequalities, and Inclusive Development: Lessons from Global Experiences* held on February 24, 2023. The discussion was centered largely around the recently published book, *The Developer's Dilemma*, authored by Alisjahbana, A S; K Sen; A Sumner; and A A Yusuf (2022). The roundtable was addressed by **Prof Nagesh Kumar**, Director, ISID; **Prof Kunal Sen**, Director, UNU-WIDER; **Prof Deepak Nayyar**, Professor Emeritus, JNU and former VC, University of Delhi; **Dr Sudipto Mundell**, Chairman, CDS Trivandrum and Professor Emeritus, NIPFP; **Prof Saon Ray**, Visiting Professor, ICRIER and **Prof Sabyasachi Kar**, Professor, Institute of Economic Growth; **Ms Rupa Dutta**, Principal Adviser, Office of Economic Adviser, DPIIT; **Prof Jayan Jose Thomas**, Professor, IIT Delhi, and **Dr Satyaki Roy**, Associate Professor, ISID. The two parts of the roundtable was moderated by **Mr Ajay Shankar**, former Industry Secretary and **Prof Nagesh Kumar**, Director, ISID. Click for the YouTube links of the [Inaugural, Session I](#) & [Session II](#).

Industrialisation has been central to the structural transformation for both advanced economies of the North as well as for the late industrialisers of the South. Structural transformation entails a process of transitioning from low to high productivity economic activities and from labour intensive to skill intensive activities. The driving force behind the process of structural transformation is the fast changing productivity of the modern sectors, namely, manufacturing and services. Generally speaking, structural transformation has often been accompanied by rising inequality, which is known as the Kuznetian Tension. Kuznets (1955)¹ hypothesis suggests an inverted U-shaped relationship between growth and inequality as the structural transformation is likely to fuel inequality at the beginning. The above relationship is a result of two effects, namely, the difference in labour productivity within sectors caused by growth and the difference in labour productivity caused by the structural

¹ See Kuznets, S (1955). 'Economic Growth and Income Inequality', *American Economic Review*, 45(1): 1–28.

change between sectors. During the process of industrialization people move from agriculture to industry or services where the former is supposed to have relatively low income and also a low variance of income compared to industry and that in urban areas. Therefore, movement of people from agriculture to other sectors is bound to enhance inequality in the initial stage but it declines as urban sector wages tend to rise and productivity differences between sectors decline over time.

The recent UNU-WIDER studies edited² by A S Alisjahbana; K Sen; A Sumner; and A A Yusuf however argues that rising inequality is not the inevitable consequence of structural

² See Alisjahbana, A S; K Sen; A Sumner; and A A Yusuf (2022). *The Developer's Dilemma*. OUP.

*Rising inequality is not the
inevitable consequence of
structural transformation*

transformation, instead, evidence shows that countries experienced not so high or stable inequality in phases of growth enhancing structural transformation. In reference to developing countries from East Asia, South Asia, Sub-Saharan Africa and Latin America, including India discussing different phases of structural transformation in varying trajectories of countries, it has been shown that inequality can be kept under check with necessary intervention by the state through appropriate set of industrial policies. In case of India alike many other developing countries, structural transformation overlaps with a shift in regime from Import Substituting Industrialisation (ISI) to liberalisation, privatisation and global economic integration. Hence the nature of structural transformation may be seen in relation to opening up of the economy as well. Similar to many developing countries, India's structural transformation marks a radical shift from agriculture to services bypassing industry, especially, the manufacturing sector. During the period of high growth, India also experienced rising inequality which has to be linked with this peculiar trajectory of structural transformation towards a service led growth.

Structural Transformation, Industrialisation & Global Experience

Over the last fifty years, development in Asia, Latin America and less so in Africa has been associated with structural transformation. In the process of economic growth and rising per capita income the relative importance in the composition of demand gradually shifts in favour of manufacturing goods compared to agricultural products and subsequently to services. On the supply side the structural change manifests itself in reallocation of resources, particularly shifting of labour from low productivity segments to higher productivity activities. In the 1970s agricultural sector was dominant in the developing world

and in 2020 it is the services sector which emerged to be the dominant sector. All these countries experienced exit of labour from primary activities over this long period. In some cases, people moved out of agriculture to manufacturing epitomising success stories of industrialisation, while for others movements were not towards manufacturing and industrialisation was stunted. For example, construction in Asia, mining in Africa and Latin America, and services became the destination in many countries for people who exited from agriculture. At the early stages of economic development, such labour transfers between sectors are growth promoting but at the later stages enhancing productivity within sectors assumes greater importance in promoting growth.

Structural changes as a shift from agrarian economy to a more industrialised economy have largely been driven by mechanised production. Early industrialisation has always been marked by technological advancement, large scale investment in industrial infrastructure, and shifting of labour from agriculture to the manufacturing sector. Given the positive spillovers that the dynamic process of industrialisation facilitates, the accompanying movement of labour from low to high productivity segments leads to growth enhancing structural change. A similar pattern was observed in the case of Asia, where labour moved out from lower to higher labour productivity sectors. However, the experience of the Sub-Saharan Africa and Latin America was opposite to that of early industrialisers of Europe and late industrialisers of Asia. In case of Sub-Saharan Africa and Latin America, labour moved out from higher to lower productive sector that resulted in limited success in terms of growth. Hence structural transformation experiences of different regions suggest diverse patterns and results in varying outcomes in terms of labour productivity and economic growth.

Considering the changes in the share of agriculture as a proxy for mapping the extent of structural transformation, a recent study by Alisjahbana et.al (2022) found that high income countries in East Asia and Latin America experienced "de-agriculturization" between 1980 and 2010. The study shows that India and China experienced sharp reduction

Inequality can be kept under check through appropriate industrial policies

in the share of their agriculture value added during the same time period. On the other hand, countries in the Sub-Saharan African region did not exhibit de-agriculturization during the same time period. The study while mapping the extent of industrialisation exhibited through changes in manufacturing value added and employment shares between 1990 and 2010 suggests that China, India and developing East Asian countries experienced significant expansion in their manufacturing value added and employment share during the 1980s.

Between 1980 and 2010, while in Asia the manufacturing sector was found to be the major driver of structural transformation, in Sub Saharan Africa it played a lesser role. Looking into the patterns of manufacturing value added and employment shares, Alisjahbana et.al. (2022) highlights five types of industrialisation in Asia between 1980 and 2010. These are 'primary industrialisation', 'upgrading industrialisation', 'advanced industrialisation', 'stalled industrialisation', and 'secular deindustrialisation' based on the different combinations of direction of change in the share manufacturing employment and value added. During 1980s, most of the countries in Asia were in the 'upgrading industrialisation' category because both manufacturing value added and employment shares were rising in that period. However, during 2000s, the pattern of industrialisation in Asia underwent a change. While high income East Asian region witnessed 'advanced industrialisation' accompanied by declining manufacturing employment share while value added rising, developing Asia experienced 'stalled industrialisation', where neither the manufacturing value added nor employment shares registered any significant change. China experienced upgrading industrialisation in the 2000s while India experienced primary industrialisation marked by rise in the manufacturing employment share together with decline in the share of manufacturing value added. The sub Saharan Africa also experienced a similar pattern of primary industrialisation during 2000s. And, during the same time period, the Latin American region experienced secular deindustrialisation, where both manufacturing value added and employment shares declined.

Employment creation is critical for growth enhancing structural change

Structural Transformation and Kuznetian Tension

Creation of employment is critical to structural change as it transforms economic growth into meaningful development by providing livelihood. Inequality mitigation becomes difficult if growth is not accompanied by employment and the quality of employment has to graduate, otherwise inequality is driven by rising earnings gap. Compared to earlier decades the relationship between GDP growth and employment growth has weakened during the period of neoliberal reforms. The structural transformation experience of different regions in Asia, Africa and Latin America suggest that the degree of Kuznetian tension would depend on the nature of the structural formation occurred in those regions. While Kuznetian tension between structural was not so evident in the case of the Sub Saharan Africa as the region experienced weak structural transformation, strong Kuznetian tension was observed in case of India and China. The inequality in these two countries increased considerably with growth enhancing structural transformation.

The East Asia went through a different experience of benign Kuznetian tension as structural transform led to productivity gains together with significant increase in manufacturing employment and a decline in inequality. In East Asian countries like Indonesia and Thailand, strong policy focus on rural and agricultural development with special emphasis on food prices and availability, public investments in technology, policies ensuring initially primary and later secondary education, reduced potential income divergences across urban-rural incomes and between higher-skilled-lower-skilled workers. A large number of jobs created in manufacturing in Thailand and Indonesia provided people higher incomes and an equalizing effect, although people

Structural transformation in India is more successful in value added and less in employment shares

moved from lower economic activities to higher productivity segments. Latin America, on the contrary, experienced ambiguous Kuznetian tension where inequality was found to be relatively stable and with not so growth enhancing structural transformation. However very few countries such as Chile in Latin America experienced benign Kuznetian tension. Between 1960 and 1973, Chile experienced benign transformation mainly due to the strong labour union movement in the 1960s and early 1970s, as well as the launch of agrarian reforms between mid-1960s and 1973. During this period social services provisions were universalized ensuring access to public education, public health, housing, and social security schemes for the middle and working class which helped easing out Kuznetian tension.

India's Story of Structural Transformation & Kuznetian Tension

India has undergone two distinct phases with respect to structural transformation and inclusive growth since independence. The first phase, from 1960 till 1980, can be characterized as period of inclusion without growth. And, the second phase, from 1980 to 2010, as the period of growth without inclusion. During this phase, inequality increased with increase in the value added and employment share of the manufacturing and non-business services sector, thereby manifesting Kuznetian tension. Between 1960 and 2010, while the agriculture sector witnessed a continuous fall in its share in value added, from 52.7% in 1960 to 15.3% in 2010, the share of non-business services sector experienced an upward movement, from 21.9% in 1960 to 41.8% in 2010. Manufacturing value added rose from 11.6% in 1960 to 17.7% in 2010, thereby suggesting not so significant industrial transformation

(Ray & Kar 2022³). Similarly, in terms of employment, while the share of agricultural employed fell considerably from 71.8% in 1960 to 54.6% in 2010, the employment shares of utilities and construction and non-business services sector increased significantly. Hence, structural transformation in India seems to be more successful in terms of value added share and less in terms of employment share. For example, in case of agriculture sector, the fall in value added was significant *vis-à-vis* modest fall in employment share. Industrialisation witnessed limited expansion as reflected in manufacturing value added and employment. On the other hand, there has been tertiarization of the economy with increased value added and employment share of services.

Studies conducted in recent years argue that growth in India was accompanied by structural changes, however, it was not as rapid structural change as witnessed in China or Vietnam. Similarly, studies also suggest that India was able to attain limited success in multi-dimensional structural transformation. What is also important that with the dominance of services in value added there hasn't been commensurate shift in the employment absorption in these sectors. The manufacturing sector also was found to be less labour absorbing *vis-à-vis* other countries owing to the nature of industrialisation in India, which is skill intensive rather than labour intensive. In India, in the non-agricultural sector the major absorbers of employment have been construction, utilities, non-business services and a thin segment of business services. In case of India, it is observed that structural transformation from agriculture to manufacturing has been found to be inclusive in nature as inequality declines with rising growth. On the other hand, when it is from agriculture to services it gives rise to growth accompanied by higher inequality. With the rising sectoral value added share of both manufacturing and non-business services, inequality was seen to be stable between 1960 to 1980 while after 1980, inequality rose with increase in their sectoral share. The story

³ See Ray, S & S Kar (2022). Inclusive Structural Transformation in India: Past Episodes and Future Trajectories. In Alisjahbana, A S; K Sen; A Sumner; and A A Yusuf (2022) edited, *The Developer's Dilemma*. OUP.

remains almost similar in case of changing employment share and inequality. During the second period, the inequality increased as structural transformation was driven by high productive sectors like business services.

The periodization with respect to structural transformation and inequality in India may not be conclusive. The assertion that the first phase, from 1960 and 1980, is a period with inclusion and without any structural change may not be tenable as during 1960 and 1975, industrial production in India quadrupled and between 1950-51 and 1980-81, agriculture share in GVA declined from 60 to about 42%. During the 1960's there was industrial stagnation in India largely due to low private investment. It became difficult to squeeze and transfer surplus from the agrarian sector to industrial sector because of already low incomes which could not be further squeezed to mobilise resources for investment. Low private investment in the industrial sector persisted mainly due to inequality causing a demand constraint. Also it is hard to assert that structural change in the liberalisation phase was driven by targeted policies. During this phase, policies were largely aimed to facilitate market assuming that growth can be maximised through spontaneous functioning of the market. Hence, instead of policies strategizing for necessary structural transformation, India's policies were designed to sync with the global structural adjustment programme.

The differential outcome in terms of Kuznetian tension can be attributed to the economic policies and industrialization approach pursued during these periods. In the first period, between 1960 and 1980 inequality was kept in check due to concerted effort of the state. On the other hand, during the second period, between 1980 and 2010, with lesser intervention by the state and structural transformation largely taking place in high productive sectors having less labour absorption capacity, inequality increased considerably. Therefore, the strategic role of state is critical to keep inequality under check and to make growth inclusive. The limited success of capital intensive industrialization during the first period in India can be attributed to the fact that industrialization

framework did not adequately address different varieties of inequalities, including inequality among social groups and adequate focus was not given to rural income growth. As has been confirmed by the Chinese experience, reducing inequality and raising rural income has been critical to structural transformation for any developing economy. Low inequality and rural economic growth in China provided a launching pad for future growth enhancing structural transformation by creating a workforce which could support and drive export and technology based industrialization. In the first decade of 2000s, China changed its focus from home or rural based industrialization to export based industrialization and from labour intensive industrialization to technology intensive industrialization. The process was led by active intervention of the Chinese state through a robust industrial policy. This partly explains why although India and China were at par with each other in 1990, China went far ahead of India in terms of income growth and technological prowess in subsequent decades.

Concluding Remarks

In the pursuit of inclusive growth developing countries often faced the Kuznetian tension of growth enhancing structural transformation coupled with rising inequality. The structural transformation and industrialization experience of countries suggest that there are multiple pathways of structural transformation and inequality dynamics specific to each country. Varieties of structural transformation are defined by their increasing or declining trends in value-added and employment share in different periods. Structural transformation would not necessarily result in rising inequality and inequality can be contained through policy interventions by the state. Therefore, a policy agenda for broad-based growth is very much needed specific to the varieties of structural changes that each country undergoes and their likely impacts on inequality. To conclude, the economic development of each country is

Role of state is critical for inclusive growth

a unique experience shaped by its peculiar circumstances, resource endowments, policy and governance framework. If there is any pattern that emerges from the experience of countries those have undergone successful structural change is precisely that they are outcomes of well-crafted policies. Public policies continue to be crucial in strategizing inclusive growth. These include a strong policy focus on rural and agricultural development through public investments, technology, along with a focus on food prices and availability to minimise urban-rural income divergence and upward pressure on inequality during structural transformation. Public provisioning can help ensuring access to quality education and impart necessary skills to the young entrants in the labour force. Provisions for healthcare, housing, and social security had been effective in restraining inequality. In case of India, broad-based inclusive growth has to be driven by growth in agricultural productivity, initially driven by agriculture-induced industrial development followed

by appropriate sequencing of industry and services growth so that growth enhancing structural transformation can take place along with stable or decreasing inequality.

Economic growth cannot sustain and structural transformation cannot be completed if one of the sectors becomes a weak link in the chain and that necessarily demands corrective interventions. For example, transformation in the agricultural sector requires institutional reforms, rural infrastructure, supportive policies such that markets and governments complement to each other. There is hardly any need to re-emphasise the role of manufacturing in directly and indirectly creating employment particularly in developing countries that are endowed with huge labour force. No country has sustained high income growth without industrialising itself and manufacturing and services sector should not be seen in dichotomies, rather increasing interdependence and synergies seem to be evolving between these sectors.

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