SSRG International Journal of Humanities and Social Science
ISSN: 2394-2703/ https://doi.org/10.14445/23942703/IJHSS-V10I3P106

Volume 10 Issue 3, 35-43, May-Jun 2023

Original Article

Economic Planning in Practice: Indian Experience and NITI Aayog

Nalin Ranjan

Department of Economics, Ganga Singh College (Jaiprakash University), Bihar, India

Received: 20 April 2023 Revised: 30 May 2023 Accepted: 18 June 2023 Published: 30 June 2023

Abstract *- The idea of economic planning has again found takers on the global stage, especially in the wake of UN Agenda 30 and the pursuit of Sustainable Development Goals (SDGs). India also revamped its planning machinery in 2015 and established NITI (National Institute of Transforming India) Aayog. In the wake of these developments, it will be relevant to have a relook at the history of ideas and experience related to Indian economic planning. The article first discusses the ideas of planning in India before the 1950s and then goes on to discuss major planning models for Indian plans. After relooking at the ideas and models of planning in India, the paper presents critical reflections on the Indian experience of economic planning and discusses the role of NITI Aayog. Drawing on Adolph Lowe's method of instrumental inference, it is argued that successful SDG planning needs a decentralized orientation to establish successful controls to achieve the desired planning goals.*

Keywords *- Planning, Sustainable Development Goals, NITI Aayog, Decentralized planning, Instrumental inference, India.*

1. Introduction

The issue of poverty removal has existed in the Indian political and economic discourse since the late 19th century. Dadabhai Naoroji presented "Poverty of India" before the Bombay branch of the East India Association in 1876 and highlighted poverty using the necessary cost of living, which he estimated using jail cost of living (Parmar, 2001). Since the overriding sentiment of the prevailing dispensation in the late 19th century was to get freedom from the yolk of British rule, the questions raised by the grand old man of India (Dadabhai Naoroji) remained subdued under patriotic feelings. Poverty came into discussion in a big way at the dawn of independence when India started discussing and debating the planning ideas. In the 21st century, the world has thrown more environmental, sanitation, and health challenges.

There is a global effort towards achieving Sustainable Development Goals (SDG), which give a shared vision of our prosperous future. National planning has revived globally in the wake of UN Agenda 30 related to SDG. India has also adopted a different approach to planning through NITI Aayog. In this light, this article reviews Indian plan models and presents a critique of Indian plan models. Further, while discussing NITI Aayog, the article argues that India has witnessed a paradigm shift in planning. However, there is still much work to be done to achieve collaborative planning in the true sense, which is required to establish successful controls to achieve planning goals.

2. Indian Planning in Practice

The focus of newly independent countries in the post-war world was economic growth, and India was no exception. Though India was ushered in an era of planned development with the advent of its first five-year plan in 1951, the historical roots of planning went back to debates and ideas which took birth during the pre-independence years of the National Planning Committee set up by the Indian National Congress (1938) and Bombay Plan (1944) proposed by J.R.D. Tata and other industrialists. There were other plans also, e.g., the Gandhian Plan (1944) by S.N. Agrawal, the People's Plan (1945) by M.N. Roy, chairman of the post-war reconstruction committee of the Indian Trade Union and the Sarvodaya Plan (1950) by Jaiprakash Narayan.

National Planning Committee and Bombay Plan focused on large-scale industrialization, while other plans focused on Gandhian development techniques through cottage industries and agriculture. However, the Gandhian method did not gain much traction among the educated Indian elites, and the dominant perception favoured the Nehruvian approach of modernising India through massive industrialisation under the influence of socialist ideology. The socialist influence was palpable in a big way in Indian political discourse after the 1927 Brussels conference of oppressed nationalities, which Nehru attended. Added to the impressive Russian model, there was almost unanimous support for industrialisation among contemporary economists.

The first five-year plan had put different projects covering every part of the country into a well-knit scheme for economic and social rejuvenation of the country. The first five-year plan was mainly an elaborate production plan, but any well-thought focus on enhancing the social impact of production through a radical transformation of the production system was absent. Agricultural development was left to the village development councils, which were inadequate to operate at the macro level. The first plan had lost focus on social policy and was even marked by the absence of operative price policies in the agriculture and industrial sector (Gadgil, 1951).

The first plan did not explicitly adopt a model. However, the plan's analysis suggested the use of a simple variant of the Harrod-Domar growth model in which the average propensity to save and marginal propensity to save were not equal, thus facilitating an increasing growth rate from period to period (Bhagwati and Chakravarty, 1969). The first plan achieved more than the targeted growth rate, started many big irrigation and power projects, and established many research institutions without any radical social transformation.

Despite the recognition that the goal of economic development needed a radical social transformation, the first five-year plan avoided it, fearing class hatred and the accepted idea was that the society could be transformed as an integral whole gradually with the expansion of the public sector and reorientation of the private sector towards goals of planning (Planning Commission of India, 1951).

2.1. Feldman's Model

In the winter session of 1954, Lok Sabha adopted a motion after a long debate that the "objective of our economic policy should be a socialistic pattern of society and towards the end, the tempo of economic activity in general and the industrial development, in particular, should be stepped up to the maximum possible extent" (Mahalanobis, 1955). The second five-year plan was formulated with the discussions of unemployment and poverty in the backdrop and adopted the two-sector model developed by P.C. Mahalanobis, similar to Feldman's model.

G A Feldman's 1928 paper 'Theory of growth rate of national income' formalised the concept of capital goods sector investment as the prerequisite for high growth. The mathematical model of Feldman envisaged a certain investment rate and growth of the capital sector for a certain future growth rate of consumption and productive capacity (Dobb, 1967). Feldman's model was a pioneer in development thinking as, for the first time, it brought focus on the investment strategy into the capital sector and declared it as an inevitable prerequisite of growth.

2.2. Mahalanobis' Two and Four Sectors Model

Macroeconomic framework of the second five-year plan was given by Mahalanobis' two-sector model with the consumer goods sector and the investment goods sector. The model was similar to Feldman's model, but Mahalanobis was not aware of Feldman's model, and he developed the model independently. In 1953, Mahalanobis proposed a two-sector model, which later became the mainstay of India's second five-year plan from 1956-61 (Mahalanobis, 1953).

Many assumptions of the two-sector Mahalanobis model seem doubtful and sometimes obscure the achievable in the operational framework. It was not easy to clearly distinguish between consumer goods and capital goods industry when a large number of intermediate goods industries supply both capital and consumer goods industries. This problem was circumvented in the second plan framework by assigning the investment in the intermediate goods sector roughly to get the net outputs as a final product in both sectors (Raj, 1961). The choice of the proportion of investment going to different sectors has not been addressed by Mahalanobis except for pointing out that the time horizon of planning is essential when deciding on the proportion of investment in the capital goods sector.

Another issue relates to the supply of wage goods. In an economy with disguised unemployment where the manpower can be put to work with a certain amount of capital, good wage scarcity can suffocate growth. This constraint was brought to attention by C.N. Vakil and P.R. Brahmananda in their book *Planning for Expanding Economy,* which was published in 1956.

While forwarding the idea of the two-sector model in his 1953 paper *Some Observations on the Process of Growth of Income,* Mahalanobis recognised that although the questions of distribution and patterns of consumption expenditure were of great social significance, it was only feasible to examine the process of increasing the national income rapidly and the social considerations were left out of consideration at first. The second plan bolstered the industrial plan at the cost of agriculture. Eminent agricultural economist Dr. S.R. Sen, in his 1959 presidential address to the All India Agricultural Economics Conference, identified agriculture as a 'Bargain Sector' in the Indian economy, which had a great potential to produce a surplus with relatively little investment given a certain level of infrastructure development.

Mahalanobis, too in his four-sector model, evidently recognised the potential of agriculture and small-scale and household industries. For an underdeveloped country where the scope for mopping up investment by radical increment in saving is much less, expanding the production of household and small-scale industry and agriculture can be a promising alternative to generate employment and income with a relatively low capital base. This strategy can work effectively if ample demand is generated via the development process so that the small-scale and household industries can thrive.

Mahalanobis' four-sector model divides the consumer goods sector into three different sectors, namely, factory production (C1), consumer goods produced in small-scale and household industries, including agriculture (C2) and services such as education and health etc. (C3).

This model comes as a set of simultaneous equations enabling us to understand the impact of various allocations and adjust those according to plan goals. However, this model has not put separate sectoral targets and clubbed three sectors comprising the consumer goods sector with different assumptions for capital-output and labour-output ratios. The model could not specify a methodical approach to specify the investments in three consumer goods sectors. Komiya has pointed out that while finding the optimal allocation in the four-sector model, one may find that optimizing employment may lead to a non-positive fraction of investment in some sectors (Komiya, 1959). The model must be given credit for recognising the potential of households and the agricultural sector for employment creation at a low capital cost. It might have solutions for Brahmananda's wage goods conundrum.

2.3. Other Models

In the 1960s, the Plan-modelling exercise in India was effervescent, with many separate modelling efforts, optimisation, and consistency models projected for the third and fourth five-year plans. Sandee's model, Pant-Little exercise, Manne-Rudra Model, and CELP (Chakravarty-Eckhaus-Lefeber-Parikh) model were the four main models projected for the third and fourth five-year plans. CELP model, Sandee's model and Pant-Little exercise were developed for the third five-year plan, while the Manne-Rudra model was developed in connection with the fourth plan. Among all these plan models, CELP was the most elaborate and the most important optimisation model developed in the context of Indian planning.

The model described the intertemporally optimal development path from the initial to the final or terminal year. CELP model elaborately treated capital formation introducing three years lag, and it also permitted to assume of investment uniform or different among different sectors. Apart from all these, two novel introductions in the model were the equation for inventory accumulation and the expansive treatment of foreign trade problems. Export demand levels were given exogenously, and imports were divided into two categories, namely competitive and non-competitive imports. Non-competitive and competitive imports were related to sectoral production levels through fixed proportions and the device of import ceilings, respectively (Chakravarty and Lefeber, 1965; Bhagwati and Chakravarty, 1969).

The fourth plan model considered sectoral balances and foreign trade but at a more disaggregated level than the CELP model. Unlike the CELP model's eleven sectors, there were seventy-seven in the fourth plan. The sectoral allocations of output targets were fixed using an exercise on the lines of Leontief's static inter-industry model, and material balances for sectors in physical and monetary terms were worked out for terminal as well as some intervening years to maintain some inter-temporal consistency (Parikh et al., 2009).

Well before the planned development started in India, when almost every economist advocated industrial development, Prof. Gyanchand, in his 1935 article, argued that the objective of planning should have been the vast majority of people enjoying the fruit of surpluses, collective security and creative social activities. He rejected the gradualist path of development and advocated the total social and economic reconstruction of the national life, howsoever radical it was (Gyanchand, 1935).

The focus on poverty and redistribution aspects of planning increased in the 1960s. Accordingly, a committee under the chairmanship of P.C. Mahalanobis was formed in October 1960 to assess the changes in levels of living and concentration of wealth in the first and second five-year plans. The committee took a surprisingly long time to submit the report, which was also in two parts. Dr. P.S. Lokanathan, who was also a committee member, expressed in a dissent note the little value of part II of the report owing to the enormous delay in the submission (Planning Commission of India, 1969).

In Sukhamoy Chakravarty's words, the report came out with the Scottish verdict of 'Not Proven' (Chakravarty, 1987, 30). The plans failed to create enough employment, which is inevitably linked with poverty and the upliftment of the masses. Prof. Patnaik has pointed out that Mahalanobis' conception of development failed to consider the possibility of interlinked movements in production structure and income distribution and also was wrong in assuming that production structure could remain rigid against the changes in demand structure thrown by the income distribution generated by it (Patnaik, 1998). The Mahalanobis' model focused heavily on structural planning, ignoring the political economy of development; thus, most of the assumptions of Mahalanobis' model fell flat in the real world.

3. Economic Planning and Reforms

The economic reforms of the 1990s gave a new direction to economic planning in India. There was a shift from comprehensive planning to indicative planning in India after economic reforms. Until reforms started, the character of planning in India was comprehensive, although not as centralised as Soviet planning. Multisectoral models were employed for comprehensive planning with input-output balancing. With a move towards liberalization and privatization, the structure of various commands and controls was done away with. Economic planning was not required to be comprehensive, and input-output balancing was not required as foreign trade was to play a role in that (Nayar, 2020). Although the planning took a turn away from being comprehensive, detailed planning for sectors like infrastructure, labour, and employment, where the public sector had a greater role, was still prevalent. The noticeable difference between the era of comprehensive planning and indicative planning was that the role of the private sector was clearly greater in indicative planning, and the role of government was envisaged as the facilitator for the private sector to achieve the indicated targets.

4. Reflections on Indian Planning

The development process in India had to go hand in hand with creating and sustaining robust democratic processes, institutions, and an inclusive vision of development. Planning in India ought to be imperatively ingrained in a sophisticated social inquiry. However, ultimately the abstract mathematical models of Indian plans relished a heavy dose of abstract mathematical approach obsessed with investment and output. The planning and policy establishments did not have space for social sciences other than economics.

Planning in India has successes as well as failures. Remarkable planning successes were self-sufficiency in agriculture, defence, space science and atomic energy development, building a diversified industrial complex, creating a pool of skills and institutions of high quality, and facilitating technology development and absorption. Nonetheless, the planning failures were also spectacular; it failed to keep its fundamental promise of growth with equity, redistribution and enough employment, created an inefficient and overprotected industrial sector, and the benefits of the development process failed to percolate to the lower strata. Growth in employment failed to keep pace with the labour force. As employment is inextricably linked to poverty, the plan failed to make a serious dent in poverty and inequality. Despite the methods and priorities of planning changing several times with the emerging realities but social enquiry and the resultant change in policy design never became a priority in planning. Neglect of any social planning for employment creation and capability formation has led to a burgeoning informal sector and income inequality. Growth has trickled down but has not benefitted the poor or other deprived social categories much (Ghosh 2014, Motiram and Narparaju 2014).

The criticism of Indian planning comes from various quarters. From the initial enthusiasm to a noticeable disillusionment, the causes of certain grave failures of planning in India cannot be demonstrably articulated through a single explanation. Any assessment of failures and successes of planning needs an elaborate discussion drawing upon the variegated intellectual resources and development paradigms. The story of Indian development started with Mahalanobis's strategy adopting an inward-looking industrial development strategy, essentially the then-popular strategy of import-substituting industrialisation (ISI). This strategy essentially draws upon the idea of the infant industry argument given by Friedrich List in his theory of productive forces outlined in the book *The System of National Political Economy* (1841). This inward-looking strategy was similar to what Raul Prebisch advocated basing his argument on a historical fact of declining terms of trade of primary producing countries; however, Mahalanobis's strategy was based upon his mathematical planning model similar to the Russian plan model of Feldman (Prebisch, 1955; Chakravarty, 2008). Ragnar Nurkse was another pioneer of export pessimism, and for Nurkse, export pessimism was a means towards achieving balanced growth. Nurkse advocated initiating industrialization oriented towards home market production in a protected regime and then moving on to exporting to other countries (Nurkse, 1959).

Mainstream critiques of the ISI point to the inefficient allocation of investment resources, overprotection of industries, rent-seeking and lack of comparative advantage. Although theoretically convincing, the ISI strategy does not tell us the direction of investment. ISI strategy gives less learning experiences to develop along the lines of comparative advantage. In contrast, Export-led growth helps us realise the country's growth potential as it helps us realise the economies of scale and other dynamic factors at work in the process (Krueger, 1984).

The protection and licensing give rise to unproductive rent-seeking and essentially hampers the resource allocation conducive to development, wastes entrepreneurial energy and results in welfare loss (Krueger, 1974). The strategy ignores the availability of foreign exchange while coping with the rising demand for capital importation.

Balassa has divided the total cost of protection into static and dynamic terms. Static costs arise from the high effective rate of protection, which may be absorbed by the high profit or high manufacturing cost, generally the latter. On the other hand, dynamic costs arise from the opportunities forgone by the country by protecting an inefficient industrial complex. Static costs are generally borne in the hope of the future incurring benefits from a robust industrial sector. However, according to some economists, generally, countries end up with highly protected inefficient industrial structures (Balassa, 1970; Krueger, 1982).

In the Indian planning scenario, pessimism ruled over optimism. The Planning commission believed that the foreign trade and exchange scenario was not conducive to the export-led strategy in the Indian case. One political argument for adopting the ISI strategy is always about being self-reliant, but the dominant economic logic behind adopting the strategy had to do with coping with the need for capital imports. It was understood that more foreign exchange needs could be met by insulating the domestic economy through strict import controls and developing heavy industry for the future. This strategy gained currency as export earnings were perceived to be limited owing to the slow growth of world exports. This premise was also implicit in the Mahalanobis model, which assumed a closed economy. On the other hand, the proponents of export-led growth were of the view that the Planning Commission never considered export sector investment seriously and thinking of fewer earnings in exports even before investing sufficiently in the sector was uncalled for. They were more critical of unduly greater investment allocation towards the public sector, which contributed much less to the output in comparison to the share of investment allocation (Patel, 1959; Krueger, 1961).

Unutilised capacity has been noticeable in the Indian industry since the 1960s. Demand deficiency due to the lack of growth of agriculture and the lack of imported capital due to insufficient foreign exchange were identified as the main driver of the unutilised capacity in Indian industrial development. However, the export promotion strategy never gained traction among Indian economists as they were sceptical of the suitable export strategy which could lead to favourable terms of trade and enough foreign exchange earnings. The Indian economists beleived that outlines of a favourable export policy could not be easily drawn, and the existing pieces of evidence of the successes of the strategy were developed under some exceptional circumstances (Raj, 1976; Chakravarty, 1979; Vaidyanathan, 1977). Economists supporting reforms have blamed planning failures on bureaucratic controls, stifling import policy and an inefficient public sector. Public sector enterprises evolved into high-wage inefficient structures among widely pervasive informal low-wage employment. The creation of a high-cost, inefficient and large public sector also added to the country's financial woes. Accordingly, the failures of Indian economic policies were the result of fallacious premises on which the policy architecture was based (Bhagwati and Srinivasan, 1984; Bhagwati, 1993; Bhagwati and Srinivasan, 1993; Joshi and Little, 1994).

Another line of critique apart from the critiques of ISI strategy comes from Prof. Gadgil's thought-provoking criticism of Indian Planning as lacking any concrete framework connecting various dots across economic sectors and especially lacking any price policy (Gadgil, 1967). Gadgil was not the opponent of ISI strategy, he was well in support of a self-reliant economy with a well-diversified industrial structure, but his idea of planning was about employment creation and rural industrialisation. The diversified industrial structure, in his view, was not devoid of rural industrialisation, which needed three-pronged action, namely: (1) technical and economic reorganisation to make rural cottage industries more efficient without losing their social character, (2) Investment in capital and technical training and (3) a sheltered market for a given time period (Gadgil, 1951). The excessive focus on heavy industries led to the neglect of these necessary policy actions pertinent to the social aspects of economic development.

The crux of this critique was that the social was inseparable from the economic, and the development planning process must then envisage a framework that, apart from economic growth, also brings social justice and equality. Distributional aspects cannot be separated from production, and a plan which cares about distributional equity needs a policy frame. For example, overall growth in agricultural production and the subsequent stability in farmers' income needs an agricultural price policy which in turn also may help to stabilise the manufacturers' prices. Price policy should help check inflationary forces, while income policy is needed to keep incomes stable and augmentation of incomes for the disadvantaged; however, Gadgil also talks of some radical policy measures, e.g., Agricultural tax, consolidation of land holdings without transforming the small landholder into landless labour, land ceiling contingent upon the ceiling on non-agricultural income etc., which in his opinion, were necessary policy measures to counter income concentration (Gadgil, 1961; Raz, 1961; Chandra, 2001). Some of his ideas of rural rejuvenation can well be debated. Presumably, the questions of the productive employability of disguised labour and harnessing of the related savings potential raised by Vakil-Brahmanda's wage-goods strategy could be addressed with a proper policy frame discussed by Gadgil. Not to say, the goals of both critics are the same, absorption of expanding labour force in productive employment.

Marxist critique of planning in India puts the onus of failure of planning on the government's failure to address the inequality rooted in the institutions and structures which help perpetuate it. The failure of Indian planning to achieve the goals of reducing income concentration and generating employment lies precisely in the unwillingness to understand this link and act. Thriving on this link, income concentration led to the change in demand structure over time which was not conducive to indigenous technology and employment creation. Land reforms were the most important in reforming the production structure, and the government could not take this up in a decisive way. The goal of radical reform on the social front was always articulated in policy documents but never pursued with credible intent (Raj, 1979; Bagchi, 1990; Bagchi, 1991).

5. NITI Aayog and the "New Age Planning"

State-led centralised planning saw a decline in the 1980s; the 1980s were years of Structural Adjustment Plans (SAPs) designed to help heavily indebted developing countries under the directions of the IMF and the World Bank. Of late, there has been a rise in global interest in national planning, especially in the wake of UN Agenda 30 and sustainable development goals. The number of countries with a national plan has more than doubled, from 62 to 134 between 2006 and 2018, and 80 percent of the world's population now lives in a country with a national development plan Chimhowu et al. (2019). Chimhowu et al. (2019) have called this recent spurt in national planning "new national planning". India revamped its own planning machinery in 2014 and established 'NITI Aayog', which was the advent of India's "new national planning". While reviewing the Indian plan experience, we have seen that major criticism of Indian planning was the heavy reliance on technocratic modelling, disconnect from social reality and excessive focus on investment. In light of these critiques, this section reflects on the role of NITI aayog in the new national planning in India.

While commenting on the problems in plan implementation in his book *Development Planning: The Indian Experience*, Sukhamoy Chakravarty brings Adolph Lowe's instrumental inference to notice. Adolph Lowe proposed his political economics and the method of instrumental inference in his book *On Economic Knowledge* (1965) as an alternative approach to the neoclassical economic method. Adolph Lowe's political economics and method of instrumental inference provide a sound epistemological basis for doing economics in modern capitalism (mature industrialism, as Lowe calls). The instrumental inference is also called the instrumental-deductive method, which may be seen as two separate methods of reasoning but interconnected. Firstly, starting from a known macro-goal behavioural pattern and technical relations are discovered, connecting it to the initial state (which is also known) through regressive reasoning. Secondly, taking the discovered behavioural and technical patterns (initially unknown, which became known through regressive reasoning) as premises, different paths connecting initial and final states are discovered (Ranjan, 2018). While Indian plans focused on goal-adequate paths, Indian plans lacked in establishing behavioural patterns for goal-adequate paths (Chakravarty 1987, 42). An important aspect of Lowe's instrumental inference is the establishment of controls to keep various economic agents on the goal of adequate paths. Lowe has not used control in a socialist sense; rather, control in Lowe's instrumental inference is there to direct decentralised decisions in a capitalist market on the chosen goal adequate path. In light of the above ideas, three objectives of NITI Aayog, among others, stand out as stated in the gazette notification. These objectives are, fostering cooperative federalism, aggregation of village plans to higher levels and its role as a think tank. These objectives clearly make NITI Aayog a less technocratic and more democratic institution and will help India focus on behavioural aspects of planning which were earlier ignored. Cooperative federalism and aggregation of village-level plans will help discover goal-adequate paths for achieving a macro goal. Cooperative federalism and village-level plan signify the emphasis on decentralisation in the new age planning through NITI Aayog.

Chimhowu et al. (2019) identify two planning paradigms; the first is a classical planning paradigm based on the theories of linear rationality, where planning is a rational science driven from the top. The second paradigm is based on more recent communication, negotiation, or instrumental rationality theories. The establishment of NITI Aayog may be seen as a paradigmatic shift in Indian planning in that sense. With the emphasized decentralised approach, Indian planning will be more instrumental with a goal-seeking approach as opposed to the technocratic plans of the planning commission. This paradigm shift in planning will also help establish controls for achieving a macro goal in an effective manner, as plan implementation and the successful implementation of control needs decentralisation at every level of planning (Ranjan, 2018). Controls are the most important aspect of a plan based on negotiation, communication, and coordination, as well-devised controls help steer different expectations, micro-goals, and motivations towards a macro-goal.

After eight years of establishment, NITI Aayog has promoted cooperative federalism, e.g., its role in GST and competitive federalism through various indices promoting innovation, health, sustainable development goals etc., among states. NITI Aayog has also fared well as a think tank and research center. However, a lack of action is noticeable as far as the aggregation of village-level planning and formulation of adequate controls are concerned. Controls can be broadly of two types, namely command controls and manipulative controls. For example, a production-linked incentive scheme can be seen as a type of manipulative control to steer manufacturers towards achieving certain macro goals, i.e., making India a manufacturing hub. Lowe says command controls should be kept at a minimum in a market economy. Certain behavioural controls are also needed for citizens and bureaucracy. However, effective controls in the case of citizens and bureaucracy may remain a distant possibility without village-level planning and decentralisation. Here, the role of state governments has become crucial, and thus the new age planning in India cannot achieve its potential without a certain degree of cooperation from the states.

A decentralized approach to planning is necessary to establish goal-adequate controls. In erstwhile technocratic planning, controls were established using licenses, regulations, and administered prices; however, with the advent of 'New age planning', along with price-based and regulatory controls, controls related to administration, policy implementation and behaviour of the citizenship become important. The success of policies, howsoever robustly designed, largely depends upon the street-level bureaucracy, which is the public's first contact with the government as policy implementation is often subjected to nudges and twitches of street-level bureaucracy (Lipsky, 2013). With decentralization, community and political leadership are expected to frame incentives and punishments for the street-level bureaucracy to perform. This may require strengthening Panchayati Raj Institutions (PRIs) and other community-based organisations, which may further help us design village development plans and their aggregation. Recent research has recognised the importance of decentralised and community-based planning in achieving sustainable development goals while aligning local planning with national and global goals (Szetey et al., 2021).

The novel approach of NITI Aayog towards a macro goal can be seen in India's pursuit of SDG goals. NITI Aayog has contributed significantly to the pursuit of SDGs by sensitising different stakeholders, monitoring and evaluation, providing need-based technical support, facilitating mutual learning among States/UTs and ranking the performance of States/UTs on SDGs on a set of select indicators (Jain and Mishra, 2019). NITI Aayog has brought a paradigmatic shift in Indian planning as planning has become an exercise towards achieving a macro goal as opposed to rational science in the top-down model of yesteryears.

6. Conclusion

National planning has revived globally in recent years, especially in the wake of UN Agenda 30. India also established NITI Ayog 2015 as a think tank to steer India towards stated national macro-goals. In this background, the article reviewed the historical planning experience of India and argued that the formation of NITI Aayog is a paradigmatic shift in Indian national planning. The new institution has approached national planning in a more democratic and decentralised way. This change can be seen as a move towards collaborative rationality in planning, which posits a different heuristic for decision-making. The approach views planning as a more decentralised process of negotiation and communication across different stakeholders (Chimhowu et al. 2019). The efficient decentralisation and well-designed controls in Indian planning need more decentralisation towards village democracy, with village development plans at the village level aggregating into a national plan. Then, in a true sense, India will have a collaborative plan. NITI Aayog is the first and vital step towards the same.

References

[1] Amiya Kumar Bagchi, "Planning for Employment," *Economic and Political Weekly,* vol. 25, no. 16, p. 819, 1990. [Publisher Link]

[2] Amiya Kumar Bagchi, "From a Fractured Compromise to a Democratic Consensus: Planning and Political Economy in Post-Colonial India," *Economic and Political Weekly,* vol. 26, no. 11/12, pp. 611-628, 1991. [Google Scholar] [Publisher Link]

[3] Bela Balassa, "Industrial Protection in Developing Countries," Report no. EC-175, IBRD IDA, 1970. [Google Scholar] [Publisher Link]

[4] Jagdish N. Bhagwati, and Sukhamoy Chakravarty, "Contributions to Indian Economic Analysis: A survey," *The American Economic Review,* Supplement, Surveys of National Economic Policy Issues and Research, vol. 59, no. 4, pp. 1-73, 1969. [Google Scholar] [Publisher Link]

[5] Jagdish N. Bhagwati, and T. N. Srinivasan, "Indian Development Strategy; Some Comments," *Economic and Political Weekly*, vol. 19, no. 47, pp. 2006-2008, 1984. [Google Scholar] [Publisher Link]

[6] Jagdish Bhagwati, and T.N. Srinivasan, *India's Economic Reforms,* New Delhi: Associated Chambers of Commerce and Industry of India, 1993. [Google Scholar] [Publisher Link]

[7] Jagdish Bhagwati, *India in Transition: Freeing the Economy,* Delhi: Oxford University Press, 1993. [Google Scholar] [Publisher Link]

[8] Sukhamoy Chakravarty and Louis Lefeber, "An Optimizing Planning Model," *The Economic Weekly,* vol. 17, no. 5, pp. 237-52, 1965. [Google Scholar] [Publisher Link]

[9] Sukhamoy Chakravarty, "On the Question of Home Market and Prospects for Indian Growth" *Economic and Political Weekly,* vol. 14, no. 30/32, pp. 1229-1242, 1979. [Google Scholar] [Publisher Link]

[10] Sukhamoy Chakravarty, "*Development Planning: The Indian Experience*," Oxford: Clarendon Press, 1987. [Google Scholar] [Publisher Link]

[11] Steven N. Durlauf, and Lawrence E. Blume, *The New Palgrave Dictionary of Economics*, vol. 5, pp. 248-49, 2008. [Google Scholar] [Publisher Link]

[12] Nirmal Kumar Chandra, "D R Gadgil on Political Economy of Planning: A Centenary Tribute," *Economic and Political Weekly*, vol. 36, no. 36, pp. 3480-3484, 2001. [Google Scholar] [Publisher Link]

[13] Admos O. Chimhowu, David Hulme, and Lauchlan T. Munro, "The 'New' National Development Planning and Global Development Goals: Processes and Partnerships," *World Development,* vol. 120, pp. 76-89, 2019. [CrossRef] [Google Scholar] [Publisher Link]

[14] Maurice Dobb, *Papers on Capitalism, Development and Planning*, London: Routledge and Kegan, 1967. [Google Scholar] [Publisher Link]
[15] D.R. Gadgil, "Some Requirements for Technical Progress in Asia," *Pacific Affairs*, vol. 24, no. 2, pp. 78-84, 1951. [Google Scholar] [Publisher Link]
[16] D.R. Gadgil, "Notes on Government of India's first Five Year Plan: July 1951," *Economic Development and Cultural Change*, vol. 1, no. 1, pp. 57-72, 1952. [Google Scholar] [Publisher Link]
[17] D.R. Gadgil, "Planning without a Policy Frame," *Economic and Political Weekly*, vol. 2, no. 3/5, pp. 253-264, 1967. [Google Scholar] [Publisher Link]
[18] Jayati Ghosh, "Growth, Industrialisation and Inequality in India," *Journal of Asia Pacific Economy*, vol. 20, no. 1, pp. 42-56, 2015. [CrossRef] [Google Scholar] [Publisher Link]
[19] Joydeep Guha, and Bhaskar Chakrabarti, "Achieving the Sustainable Development Goals (SDGs) through Decentralisation and the Role of Local Governments: A Systematic Review," *Commonwealth Journal of Local Governance*, vol. 22, pp. 1-21, 2019. [Google Scholar] [Publisher Link]
[20] Gyanchand, "The Essentials of Economic Planning in India," *Indian Journal of Economics*, vol. 15, no. 59, pp. 409-22, 1935 reprinted in J.Krishnamurty (ed.) *Towards Development Economics*, pp. 173-83, New Delhi: Oxford, 2009. [Google Scholar] [Publisher Link]
[21] Ashok Kumar Jain, and Sundar Narayan Mishra, "Role of NITI Aayog in the Implementation of the 2030 Agenda," S. Chaturvedi, T C James, Sabyasachi Saha and Prativa Shaw (eds.), *2030 Agenda and India: Moving from Quantity to Quality*, Springer Nature: Singapore, pp. 239-254, 2019. [Google Scholar] [Publisher Link]
[22] Vijay Joshi, and I M D Little, *India: Macroeconomics and Political Economy 1964-1991*, Washington D C: World Bank, 1994. [CrossRef] [Google Scholar] [Publisher Link]
[23] Ryutaro Komiya, "A Note on Prof. Mahalanobis' model of Indian Economic Planning," *The Review of Economics and Statistics*, vol. 41, no. 1, pp. 29-35, 1959. [Google Scholar] [Publisher Link]
[24] Anne Krueger, "Export Prospects and Economic Growth: India: A Comment," *The Economic Journal*, vol. 71, no. 282, pp. 436-442, 1961. [CrossRef] [Google Scholar] [Publisher Link]
[25] Anne O. Krueger, "The Political Economy of the Rent Seeking Society," *The American Economic* Review, vol. 64, no. 3, pp. 291-303, 1974. [Google Scholar] [Publisher Link]
[26] Anne O. Krueger, and Baran Tuncer, "An Empirical Test of Infant Industry Argument," *The American Economic* Review, vol. 72, no. 5, pp. 1142-1152, 1982. [Google Scholar] [Publisher Link]
[27] Anne O. Krueger, "Comparative Advantage and Development Policy 20 Years Later," *Economic Structure and Performance*, London: Academic Press, pp. 135-156, 1984. [CrossRef] [Google Scholar] [Publisher Link]
[28] Michael Lipsky, "Street-Level Bureaucracy- An Introduction," *Policy Process: A Reader*, Oxon and New York: Routledge, pp. 389-392, 2013. [CrossRef] [Google Scholar] [Publisher Link]
[29] Frederick List, *National System of Political Economy*, Translated by G.A. Matile, Philadelphia: J B Lippincott & Co, 1856. [Google Scholar] [Publisher Link]
[30] P.C. Mahalanobis, "Some Observations on the Process of Growth of National Income," *Sankhya: The Indian Journal of* Statistics, vol. 12, no. 4, pp. 307-12, 1953. [Google Scholar] [Publisher Link]
[31] P.C. Mahalanobis, "The Approach of Operational research to Planning in India," *Sankhya: The Indian Journal of* Statistics, vol. 16, no. 1/2, pp. 3-130, 1955. [Google Scholar] [Publisher Link]
[32] Sripad Motiram and Karthikeya Naraparaju, "Growth and Deprivation in India: What does Recent Evidence Suggest on "Inclusiveness"?," *Oxford Development Studies*, vol. 43, no. 2, pp. 145-164, 2014. [CrossRef] [Google Scholar] [Publisher Link]
[33] D.S. Nag, *A Study of Economic Plans for India*, Bombay: Hind Kitabs Ltd, 1949. [Google Scholar]
[34] B. R. Nayar, "Economic Planning after Economic Liberalization," Santosh Mehrotra and Sylvie Guichard (eds.) *Planning in the 20th Century and Beyond: India's Planning Commission and the NITI Aayog*, pp. 132-151, 2020. [CrossRef] [Google Scholar] [Publisher Link]
[35] Ragnar Nurkse, "Patterns of Trade and Development," in Rainer Kattel, Jan A. Kregel, and Erik S. Reinhert (eds.) *Ragnar Nurkse: Trade and Development*, London: Anthem Press, 2011. [Google Scholar] [Publisher Link]
[36] Kirit S. Parikh, K.L. Datta, and Arvinder S. Sachdeva, "Appendix: Mathematical Models used in Five-year Plans," Kirit Parikh (ed.) *Macro-Modelling for the Eleventh Five-year Plan in India*, New Delhi: Academic Foundation, pp. 255-281, 2009. [Google Scholar] [Publisher Link]
[37] H.S. Parmar, "Dadabhai Naoroji on Poverty of India," Prayag Das Hajela (ed.) *Economic Thoughts of Dadabhai Naoroji*, New Delhi: Deep & Deep publications, pp. 337-343, 2001. [Publisher Link]
[38] Surendra J. Patel, "Export Prospects and Economic Growth: India," *The Economic Journal*, vol. 69, no. 275, pp. 490-506, 1959. [Google Scholar] [Publisher Link]

[39] Daniel Wandera Clief Naku, "Failing to Plan is Planning to Fail: The Ugly Truth behind Failed Industrialization Efforts in Africa," *SSRG International Journal of Economics and Management Studies*, vol. 6, no. 10, pp. 41-51, 2019. [CrossRef] [Google Scholar] [Publisher Link]

[40] Prabhat Patnaik, “Critical Reflections on Some Aspects of Structural Change in the Indian Economy,” Terence J. Byres (ed.) *State, Development Planning and Liberalization in India*, New Delhi: Oxford University Press, pp. 104-125, 1998. [Google Scholar]

[41] Planning Commission of India, *First Five-Year Plan*, New Delhi: Government of India, 1951. [Publisher Link]

[42] Planning Commission of India, *Report of the Committee on Distribution of Income and Levels of Living Part II, Changes in Levels of Living*, New Delhi: Government of India, 1969. [Online]. Available: http://library.isical.ac.in:8080/xmlui/handle/10263/2062

[43] Raul Prebisch, “Commercial Policy in Underdeveloped Countries,” *The American Economic Review*, vol. 49, no. 2, pp. 251-73, 1955. [Google Scholar] [Publisher Link]

[44] K.N. Raj, “Growth Models and Indian Planning,” *Indian Economic Review*, Vol. 5, No. 3, pp. 242-61, 1961. [Google Scholar] [Publisher Link]

[45] K.N. Raj, “Growth and Stagnation in Indian Industrial Development,” *Economic and Political weekly*, vol. 11, no. 5/7, pp. 223-236, 1976. [Google Scholar] [Publisher Link]

[46] K. N. Raj, "Hastening Slowly," *Indian Economic Thinking*, Delhi: Seminar Publications, 1979.

[47] M.A. Raz, “Gadgil’s Approach to Indian Planning: A Note” *Economic and Political Weekly*, vol. 13, no. 37, pp. 1474-76, 1961. [Publisher Link]

[48] Nalin Ranjan, Adolph Lowe’s Political Economics: An Argument for Decentralization in New Age Planning, 22nd Annual Conference of European Society for the History of Economic Thought, Madrid, Spain, 2018. [Online]. Available: https://shorturl.at/cvzDM

[49] Katrina Szetey et al., “Participatory Planning for Local Sustainability Guided by the Sustainable Development Goals,” *Ecology and Society*, vol. 26, no. 3, 2021. [CrossRef] [Google Scholar] [Publisher Link]

[50] A. Vaidyanathan, “Constraints on Growth and Policy Options,” *Economic and Political Weekly*, vol. 12, no. 38, pp. 1643-1650, 1977. [Google Scholar] [Publisher link]