

Changing dynamics of Socio Economic Planning in the State of Arunachal Pradesh

By

Ashish Kundra¹, G.N.Sinha², Joram Beda³

1.0 Evolution of the Administrative set-up:

The administrative evolution of Arunachal Pradesh can be traced back to British India, with the establishment of the Dibrugarh Frontier Tract in 1882. The legal foundations of this region lie in the Government of India, Foreign and Political Department, Notification of 1914, which promulgated that the Assam Frontier Tracts Regulation of 1880 would extend to the hills inhabited or fragmented by Abors, Miris, Mishmis, Singphos, Nagas, Khamptis, Bhutias, Akas and Nyishis tribes (some of these name have since been changed). For administrative purposes, it was divided into three distinct administrative units– Central and Eastern Section, Lakhimpur Frontier Tract and Western Section.

Under Section 52-A of the Govt. of India Act, 1919, these Frontier Tracts were declared as ‘Backward Tracts’. In 1936, under the Govt. of India Act, 1935, these were declared ‘Excluded Areas’ and were administered by the Governor of Assam. Under Section 92(1) of the Govt. of India Act, 1935, an Act of either the Central or the Provincial Legislature could not be extended to these areas, except under orders of the Governor. In 1943, Tirap Frontier Tract was carved out of the Lakhimpur Frontier Tract, and Shri N.K.Rustomji was appointed as advisor to the Governor of Assam for administration of the North-East Frontier Tract.

In 1950, under the Constitution of India, Balipara Frontier Tract, Tirap Frontier Tract, Abor Hills district and Mishmi Hills district were included in the Sixth Schedule of the Constitution as Part B States. In 1951, the plain (non-hilly) areas of Balipara Frontier Tract, Abor Hill district and Mishmi Hill district were transferred under the administration of Assam. In 1954, all these tracts and districts, together with the Naga Tribal Area, were reconstituted as the North East Frontier Agency (NEFA), which came under the administrative control of the Ministry of External Affairs. In 1957, NEFA administration was structured into 5 administrative divisions –Kameng, Subansiri, Siang, Lohit and Tirap, along the five major river basins. The developmental approach of the Government of India was guided by the “Philosophy of NEFA” authored by Verrier Elwin. About NEFA, Elwin wrote in his autobiography “I found here and in other parts of the Frontier the tribes had retained their ancient culture and were developing their arts in a way that was rare elsewhere in India. Tribal life was still vigorous. It still meant something. It was not a question of reviving anything: it was more a problem of introducing change without being destructive of the best values of the old

¹Ashish Kundra, IAS is Development Commissioner (Planning, Finance & Investment) to Arunachal Pradesh Government.

²G.N. Sinha, IFS (Retd.) is Consultant Advisor to the Government of Arunachal Pradesh on Land Resources and Sustainable Development. He was Secretary (Planning and Tourism) in Arunachal Pradesh from 1998-2001.

³Joram Beda, IAS is Secretary (Planning and Tourism) to the Government of Arunachal Pradesh.

life."N.K.Rustomji wrote "Our workers must ensure, therefore that the good that is inherent in the institutions of the hill people is not tainted or substituted by practices that may be "modern" and "advanced" but are totally unsuited to their economy and way of thinking."There was therefore a clear effort to preserve the cultural traditions of the tribes of the region while charting a course for development.

The Indian Frontier Administrative Service (IFAS) was constituted in 1953 with the objective of manning posts in the border districts of NEFA. Rustomji observes that the original intention had been to recruit a "nucleus of officers" who would specialize in tribal administration and devote the better part of their service to life in tribal areas. However, he notes that "while the officers of IFAS were conscientious, earnest and competent, there were not many among them who would happily reconcile themselves to a protracted tenure of five or more years in a single district." Within a decade of establishment of IFAS, its officers had spread all over the country.

The Chinese aggression of 1962 altered the political dynamic of NEFA, and the administration of NEFA was transferred to the ministry of Home Affairs. On January 21, 1972, these areas were formed into a Union Territory under Section 7 of the North Eastern Areas (Reorganization) Act, 1971 and renamed as Arunachal Pradesh. The territory was now administered under the provisions of the Government of Union Territory Act, 1963 (No. 20 of 1963).The erstwhile Agency Council was converted to a Pradesh Council and served as the provincial legislature. The first election to the legislature of Arunachal Pradesh took place in 1977. Arunachal Pradesh was declared as a state of the Indian Union on 20th February, 1987.

2.0 Development under Five Year Plans:

The socio economic development of Arunachal Pradesh immediately after India's independence was at a very nascent stage. Rustomji observes that in 1950 there was not a single jeepable road leading from the Assam foothills into the interior regions of NEFA's northern districts. He noted, "In fact it was only in the post 1962 period that the attention of Government of India was drawn on the imperative of improving connectivity in NEFA. By the end of 1962, the communication network had radically changed. Jeepable, even truckable roads had been constructed upto each of the district headquarters, in some cases even beyond, as well as air strips for Dakotas landing".

Elwin's approach of gradualism bordering on *laissez faire* was premised on a philosophy of continuity with change. The Government of India commissioned NCAER in 1967 to conduct a study of NEFA. It recommended that the immediate focus of development should be on meeting basic needs of food, water, medical support. Local industrial development based on wood based industry, paper and pulp industry was suggested, apart from hydro power development. It observed that the 'normal yardstick of costs and benefits will be inappropriate in charting a programme of development of NEFA. Because of shortage of manpower and inaccessible terrain, the cost of practically every scheme is bound to be higher compared to a similar scheme in rest of India'. There was a discernible shift in these recommendations from Elwin's approach, and focus was laid on

investments in physical capital. The post 1962 period saw an increasing thrust on modernization, and there was a large flow of central funds for infrastructure building. These changes also saw an alteration in the fundamental relations of communities, and emergence of individual property rights and money based economy, apart from improvement in literacy rates and health indices.

It would be instructive to ponder over the decadal trends of key socio economic indicators of Arunachal Pradesh, outlined below in Table 1.

Table1: Socio economic indicators(Source: Statistical handbooks of state)

Parameter	1970-71	1980-81	1990-91	2000-01	2010-11	2015-16
NSDP(Rscores)	21	98	460	1665	8347	14400
Per capita income(Rs)	463	1571	5398	15260	60896	94993
Share of primary sector(%)	59	47	46	35	42	43.42
Share of secondary sector(%)	20	22	22	24	27	17.7
Share of tertiary sector(%)	21	31	32	42	31	39
Population(lakhs)	4.68	6.32	8.65	10.98	13.84	15.16
Literacy rate(%)	13.3	25.6	41.6	54.7	67	
Number of primary schools		965	1371	1417	2861	8902
Number of primary health centres and sub centres		1211	239	454	383	729
Total road length(km)			7520	15297	21555	33456

The Planning Commission guided the process of economic development of the state, which was based on annual Plans framed under the framework of Five Year Plans. Annual Plans comprised of three components –Normal Central Assistance (NCA), Additional Central Assistance (ACA) and States’ Own Resources (SOR). The NCA was untied funds, ACA was project based resource and SOR comprised of tax and non-tax revenue of the state, and Finance Commission grants, etc. In the initial decades of Five Year Plans, investment was much less as compared to the requirement to address economic backwardness of this territory.

During the First Five Year Plan (1951-56), approved outlay was Rs. 4.21 crore. This trend in outlay was almost constant till the Fourth Plan (1969-74) for which approved outlay was Rs. 17.99 crore. The Fifth (1974-79) and Sixth Plan (1980-85) outlays were Rs. 63.30 crore and Rs. 212.00 crore respectively. Seventh Plan (1985-90) saw an outlay of Rs. 400.00 crore. Eighth Plan (1992-97) had an impressive outlay of Rs. 1155crore. Ninth Plan (1997-2002) had an approved outlay of Rs.2593.00 crore. The Tenth Plan outlay was enhanced to Rs. 3888 crore, which saw a substantial jump to Rs. 7901 crores in the 11th Plan period. Clearly, there was a policy of gradualism in terms of public investments for modern infrastructure.

In 1996, the Government of India under the “New Initiatives for the North Eastern Region”, mandated that 10% of the budget of each ministry would be earmarked for spending in the north eastern region. In 1997, the Non Lapsable Central Pool of resources (NLCPR) was established, wherein the unspent budgets out of 10% allocation that each ministry would accrue, was to be spent in the north eastern region, and the unspent amounts would accrue into the NLCPR. Allotment of funds under the NLCPR from 1998 onwards was substantial, and it was used for meeting the requirement of creation of physical and social infrastructures. The work of administering budgets under NLCPR vested originally in the Planning Commission and then was shifted to the Ministry of Home Affairs, till it came under the ambit of the newly created Ministry of Development of the North Eastern Region in 2004.

3.0 Mode of devolution of Plan funds to States:

Up to the 3rd Five Year Plan (FYP) [1961-66] and during Plan Holiday (1966-69), allocation of Central Plan Assistance was schematic, and no formula was in use. The Gadgil Formula comprising (i) Population [60%] (ii) Per Capita Income (PCI) [10%] (iii) Tax Effort [10%] (iv) On-going Irrigation & Power Projects [10%] and (v) Special Problems [10%] was used during the 4th FYP (1969-74) and 5th FYP (1974-78). However, the formula was perceived to be weighted in favour of rich states.

Gadgil-Mukherjee Formula:

In August 1980, the National Development Council (NDC) approved the modified Gadgil formula, which formed the basis of allocation during the 6th FYP (1980-85), 7th FYP (1985-90) and Annual Plan (AP) 1990-91. The revised weights were: Population (55%), PCI [25% {20% by deviation method and 5% by distance method}], Fiscal Management (5%) and Special Development Problems (15%). However, it was used only during the AP 1991-92.

Due to reservations of State Governments on the revision, a Committee under Shri Pranab Mukherjee, then Deputy Chairman, Planning Commission, was constituted to develop a new formula. Consequently, the Gadgil-Mukherjee Formula was adopted, and it formed the basis for fund allocation from the 8th FYP (1992-97). On an all-India basis, after setting apart funds required for (a) Externally Aided Projects and (b) Special Area Programme, 30% of the balance of Central Assistance for State Plans is provided to the Special Category States. The remaining amount is distributed among the non-Special Category States, as per the Gadgil-Mukherjee Formula.

Gadgil-Mukherjee Formula			
	Criteria	Weight	Remarks
I	Population (1971)	60%	
	Per capita Income	25%	
	a) <i>Deviation method</i>	20%	Covering states with per capita SDP below national average
	b) <i>Distance method</i>	5%	For all states
II	Performance in Tax Effort, Fiscal Management and Progress in respect of National objectives	7.5%	Tax policy [2.5%], Fiscal Management [2.0%], National objectives [3%] comprising population control (1.0%), elimination of illiteracy (1.0%), timely completion of Externally Aided Projects (0.5%) and land reforms (0.5%)
III	Special Problems	7.5%	

4.0 Shukla Commission report on transformation of the North East:

Pursuant to the Prime Minister's announcement of New Initiatives for the North Eastern Region made at Guwahati on 27th October, 1996, a High Level Commission was appointed under the Chairmanship of Shri S.P. Shukla, Member, Planning Commission.

A High Level Commission Report under the title "Transforming the North-East– Tackling Backlogs in Basic Minimum Services and Infrastructural Needs" was submitted to the Prime Minister on 7th March 1997.

In its report, the Commission observed that the regional economies are simple, heavily deficit and dependent on the rest of the country for many basic needs. All seven units are special category states whose development plans are almost entirely centrally financed on the basis of 90 percent grant and 10 percent loan. The development was basically pre-industrial and enterprises were mostly around development of sectors like tea, oil and timber and wood based industries. Handlooms and handicrafts, one of the prides of the North-East, were on the decline.

The Commission found the region to be bountifully endowed with biodiversity, hydropower potential, oil and gas, coal, limestone and forest wealth. It was ideally suited to produce a whole range of plantation crops, spices, fruit and vegetables, flowers and herbs, much of which could be processed and exported to the rest of the country. Markets must be developed and problems of

transportation, power, infrastructure, finance and services must be overcome. Its natural beauty and rich flora and fauna are ideal for trekking and tourism. It can emerge as a crossroads and act as a bridge to South East and East Asia with its great rivers ending in ocean terminals at Kolkata and Chittagong.

The commission noted that its task is to end the region's isolation and neglect, break the vicious circle of economic stagnation and unemployment which feeds militancy, and in turn hampers investments and the harnessing of its abundant resources.

There are four deficits that confront the North East: a basic needs deficit, infrastructural deficit, and most importantly a two-way deficit of understanding with the rest of the country, which compounds with others, the commission noted in its report.

Effecting a quantum jump will require a very considerable increase in outlay and capacity building to develop and implement programmes and projects. This region is resource-rich, which is truly a national asset. Development of hydroelectric, oil and gas, coal, biodiversity and agro-silviculture potential, holds out promise of national solutions through regional development. A total investment requirement of Rs. 93619 crores was assessed for various infrastructure projects in the region.

5.0 Recommendations of Arunachal Pradesh Development Report:

The Arunachal Pradesh Development Report (APDR) was prepared under the overall guidance of the Planning Commission. The Core Committee for the preparation of APDR was constituted in 2003 under the chairmanship of Dr S.P.Gupta, Member, Planning Commission. The APDR published in 2009 suggested useful policy options for development of the state. The key policy recommendations which emerged through the APDR were:

- a) The state must frame a rural non-farm sector policy for employment opportunities to youth.
- b) Special educational drives be carried out in inaccessible and border areas.
- c) Immunization cover for children should be expanded. Health services to far flung areas should receive special attention.
- d) Expansion of educational institutions, especially vocational education, should be given priority.
- e) Resource mapping of the state is crucial (only 10% of the area has been surveyed by GSI) and a well-defined mineral policy should be spelt out.
- f) Scientific management of non-timber forest produce: bamboo, cane, medicinal plants and orchids, with strategic market linkages with private sector.
- g) Promotion of horticultural and plantation crops, including commercial farming, should be encouraged.
- h) Improvement of rural connectivity should be a priority.
- i) Expansion of agricultural credit through formation of self-help groups needs to be promoted.
- j) Small-scale food processing industry along with cold storage facilities should be developed.

- k) Cadastral Survey of agricultural land and creation of record of rights, which can be used as collateral for lending by financial institutions, should be undertaken.
- l) Land leasing policy should be brought out by the government; development of government industrial estates with provisions for long term leasing.
- m) Development of local entrepreneurial capabilities.
- n) Opportunities for border trade with neighbouring countries should be explored, by developing road infrastructure.
- o) Power sector reforms should be undertaken, for reduction of T&D losses. Revisit the options for tapping hydro power, which include development of decentralized hydro power projects.
- p) Air connectivity should receive high priority.

The key sectoral priorities identified in the report were:

- a) To speed up development of hydro-electric projects through Public Private Partnerships.
- b) Infrastructure upgradation of backward districts.
- c) Expansion of horticulture and plantations, especially in districts still dependent on jhumming.
- d) Setting up of agro processing industry, especially in backward districts with appropriate backward linkages.
- e) Cooperative mode of organization for development of the value chain in the agriculture and horticulture space.

6.0 Other initiatives for speeding up development:

Before the actual implementation of the recommendations of the Shukla Commission Report, the annual funds in the state was around Rs. 300-400 crore per annum till 1995-96. During 1997-98, the annual plan at the stage of RE was of the order of Rs. 472 crore.

The NLCPR was very helpful in taking up new schemes of physical and social infrastructure. This boosted the development of the state right from the initial year of its implementation.

Economic development after the year 2000 saw increased funding under ACA/CSS, which was project based. Mention may be made of Border Area Development Programme (BADP), Accelerated Irrigation Benefit Programme (AIBP), Rural Infrastructure Fund (RIDF) through NABARD, etc.

To bridge the gap in infrastructure, Special Plan Assistance (SPA) was started in 2003. Quantum of funds devolved to Arunachal Pradesh was significant. A perusal of Annual Plan for 2009-19 will reveal that ACA and SPA were of the order of Rs. 200 crore and Rs. 900 crore respectively. In 2006, Prime Minister's Package was announced and some of the important projects were completed. Mention may be made of the new secretariat building, Pare and Dibang power projects, Itanagar water supply scheme, new rail link between Itanagar and Harmuti, Bogi-beel

bridge, Dhola-Sadiya bridge, transmission lines, two-lane Trans Arunachal Highway from Tawang to Mahadevpur, and improvement of air connectivity through helicopter.

7.0 Role of North Eastern Council (NEC):

The North East Council has played an important role in development of the states of the North East. Arunachal Pradesh has been one of the biggest beneficiaries of funding from NEC. NEC has provided funds not only for infrastructure development, but has also supported agriculture and allied sectors of development. Important schemes in transport and communications include Seppa-Sagali road (220 km), Banderdewa-Itanagar road (34 km), Margherita-Deomali road (34 km), Pakke-Daporijo road (55 km), Gohpur-Itanagar road (22 km), Jagun-Miao road (27 km), Kaying-Tato road (86.60 km), Taliha-Nacho road (73 km), Ditte-Dime-Riga-Migging road (200 km), Pakke-Sejosa-Itakhola road, Jotte-Balijan road, Nari-Telam-Rimi road, Pasighat-Koyu-Ego road, etc.

Major power sector development include projects like 132 KV S/C Gohpur-Itanagar transmission line (Rs. 5.88 crore), Ranganadi HEP (3x105 MW) project (Rs. 1455.45 crore, NEC released fund, Rs. 834.85 crore), Ranganadi transmission line (Rs. 172.43 crore, NEC released Rs. 119.18 crore), etc. Besides these, the NEC has also invested funds in agriculture and allied sectors, industry and mining, manpower development, etc.

8.0 Devolution of resources under Fourteenth Finance Commission:

The Fourteenth Finance Commission (FFC) altered the resource transfers of the Central divisible pool and recommended 42% of resources be transferred to the states as against 32% in the Thirteenth Finance Commission. This provided greater fiscal space to the states to set their own agenda of expenditure planning, by providing greater flexibility. The FFC introduced a new element of forest cover as a criteria for resource transfer, which has been particularly beneficial to the state of Arunachal Pradesh. The table below gives the difference in criteria of devolution across different Finance Commissions.

Criteria	Weight%		
	14 th FC	13 th FC	12 th FC
Population (1971)	17.5	25	25
Demographic change since 1971	10		
Income distance	50		50

Area	15	10	10
Forest cover	7.5		
Fiscal discipline		17.5	7.5
Fiscal capacity distance		47.5	
Tax effort			7.5

The result in this alteration of criteria resulted in a change in allocation of resources devolved to the state of Arunachal Pradesh. The table below brings out the allocations to different NE states both in the Thirteenth Finance Commission award period and in the FFC recommendations.

State	Population (2011 census)(Lakhs)	Amount recommended by 13 FC(Rscores)	Amount recommended by 14 FC(Rscores)	%increase
Arunachal Pradesh	13.83	9103.8	54090.1	514%
Assam	312.05	57832.7	143239.11	147.7%
Manipur	25.7	13567.5	35102.74	158.73%
Meghalaya	29.67	9842.4	27335.54	177.73%
Mizoram	10.97	8805.3	30584.2	247.34%
Nagaland	19.78	13744.2	38344.48	178.99%
Tripura	36.73	13127.6	31212.75	137.77%
Sikkim	6.1	4525.7	14867.39	228.51%

Source: Thirteenth Finance Commission Report and Fourteenth Finance Commission Report

The above table brings out the fact that there has been a substantial jump in the resource allocation to the North Eastern states under the FFC award, and Arunachal Pradesh has been the biggest beneficiary.

9.0 Current context, policy challenges and emerging opportunities:

Over the years, there has been substantial progress on several fronts, including in infrastructure creation and human capital, yet huge challenges remain. If we compare the performance of Arunachal Pradesh even within comparable Special Category states, it is evident that there is a long road to traverse.

A composite development index was developed by Govind Bhattacharjee (2016) to compare the performance of Special Category states. This index was based on 10 indicators, each carrying equal weight, broadly classified into three groups: a) Income, employment and poverty; b) Socio-economic development indicators; c) State intervention indicators. Based on these, a ranking was done of all North Eastern states, along with Uttarakhand, Himachal Pradesh and J&K. It was revealed that Arunachal Pradesh ranked at the 9th position out of 11 states in 2001 and slipped to 10th position in 2011.

The perspective of socio-economic planning in the state now needs to move away from an approach of asset creation, to outcome measurement. There are regional imbalances within the state on various socio-economic indices, and investment planning must be targeted to bridge these gaps. Investment in human capital, and harnessing the latent potential of youth is assuming an ever greater urgency.

At this juncture it is important to dwell upon the key socio-economic challenges, and how to shape public policy to deliver the desired outcome, keeping an eye on emerging opportunities.

9.1 Sustainable economic development

While it is clear that the devolution of resources to the state has increased, it is important to take stock of the overall fiscal situation, and to ensure that the pattern of expenditure is targeted towards productive activity and tangible asset creation, and the revenue expenditure of the state is controlled in manageable limits. The revenue expenditure of the state is demonstrating an increase from a level of Rs 7156 crores (2014-15), Rs 8362 crores(2015-16), Rs 9781 crores(2016-17) to an estimated Rs 11197 crores in 2017-18. In the same period, capital expenditure also saw an increase from 1483 crores(2014-15), Rs 1993 crores (2015-16), Rs 2438 crores (2016-17) to a projected level of Rs 4105 crores in 2017-18. The outstanding debt liability also increased from a level of Rs 4247 crores in 2014-15 to Rs 5166 crores in 2017-18. The states own revenue increased from Rs 919.8 crores (2014-15), Rs 927 crores (2015-16), Rs 1157 crores(2016-17) to a projected level of Rs 1279 crores in 2017-18. The annual salary and wage bill of the state for government employees itself comes to Rs 3946 crores.

At the same time, it is important to contain the fiscal deficit within manageable levels and curb the revenue expenditure, which currently has a major share in total expenditure. There

cannot be perpetual dependence on Central government assistance for financing capital asset creation in the state in the long run. Clearly, a case is made out for enhancement of the state's own revenue sources, which would entail re-examining the regime of mining royalties, excise duty rates and mechanisms, power bill realizations, forest royalty, etc. With the onset of the GST regime, the challenge of enhancing GST collection, which is completely driven by technology, would need to be squarely addressed.

It is equally important to kick-start the cycle of expanding institutional credit, both in the farm and non-farm sectors, which would enhance private economic activity, reducing the dependence on government employment. The government has launched the Deendayal Upadhyay Swavlamban Yojana, which encourages educated unemployed to obtain institutional finance in select areas of economy for loans upto Rs 1 crore, while providing a capital subsidy of 30%. However, certain changes in the regulatory regimes are crucial, especially in land titling and leasing arrangement, which would inspire confidence amongst bankers for de-risking lending operations.

The strategy of economic development must follow a path which is sustainable and in harmony with the rich environmental reserve of the state. Forestry resource in the state is huge and spread over around 80% of the geographical area. The judicial intervention in forestry in 1996 has reduced production of timber from its forests. Therefore, forestry potential in the state like bamboo, cane, medicinal plants, gums, resins, oils and orchids should be the potential sectors for further investments. With the recent announcement by the Government of India to declare Bamboo as grass, the regime of issuance of transit permits by the state also needs to be revisited. Eco-tourism in forest and Protected Areas Networks may be initiated for employment generation and building strong community interests in protecting the forests.

A comprehensive tourism development strategy needs to be drawn up, which must include end-to-end solutions and perhaps an inclusive homestay driven model mixed with eco-tourism resorts would be viable options for employment generation and enhanced tourism flow.

A new institutional and financial mechanism is required for unlocking the hydro-power development in the state. A large number of projects are stuck in the absence of timely regulatory clearances, absence of financial closure and litigation in Green Tribunals.

9.2 Connectivity

For decades, poor connectivity has hampered the economic development of the state. An ambitious Trans Arunachal highway project is under implementation, which will connect Tawang in the west with Longding in the eastern part of the state. A Frontier Highway project has also been conceptualized in the upper reaches of the state to reduce the stress of rural migration and improve connectivity in the remote border areas of the state.

Rural road connectivity also has seen accelerated investments under the PMGSY program. Key transport connectivity projects include the Special Accelerated Road Development Project (SARDP-NE), for which NITI Aayog has recommended establishment of a dedicated project implementation unit. The program is designed to ensure a minimum two lane road connectivity to all districts. The two phases of the program envisage coverage of 10,141 km roads in the state. Naharlagun now has a daily overnight rail link with Guwahati and also a Shatabdi rail link thrice a week. Perhaps introducing cargo rakes in the train would be a useful intervention for transportation of goods.

Air connectivity still remains a challenge, though there is now a clear understanding with Defence authorities that the Advanced Landing Strips under operational control of armed forces would have dual use application. It is expected that the air strip at Pasighat, Ziro and Mechuka, and the AAI airport at Tezu would be operational within a year. The Regional connectivity scheme of the Government of India has found some traction in the second phase of bidding, and the state government may also top it up with additional Viability Gap Funding and zero VAT on Air Turbine Fuel.

The inland waterway authority has also started preliminary studies on the Lohit river to make it a regular mode of transportation.

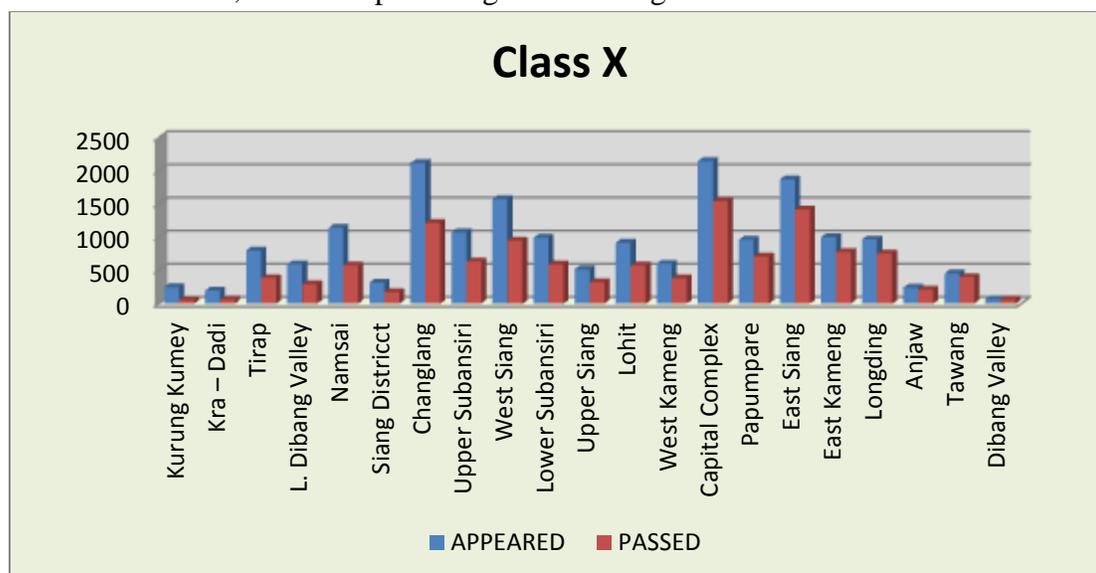
9.3 Revitalizing rural farm economy

A majority of people of Arunachal Pradesh are still engaged in agriculture. Some progressive farmers have diversified into commercially remunerative crops, plantations, and horticultural crops. Some nascent experiments of commercial farming in case of palm oil have also begun in the state. However, there is a huge challenge of flow of credit to agriculture in absence of land ownership documents. Equally, there are infrastructural bottlenecks in absence of aggregators, packaging facilities, cold chains and forward linkages, which constrain marketing of produce outside the state. Some entrepreneurs have made investments in value addition in agriculture, and perhaps learnings from them should shape the policy interventions to seed entrepreneurs both in the agro processing space as well as non-traditional farming activity. The rich bio-resource of the state deserves to be effectively tapped, especially when there is a huge demand for medicinal plants and the exotic fruit varieties outside the state. A harmonious chain would need to be created which links the farmers with aggregators, and the use of technology platforms could help build these linkages.

9.4 Education, skills and entrepreneurship

Over the years, the number of teachers, school buildings and enrollments has all increased substantially in the state, yet the quality of education deserves special attention. Over the years, there has been considerable investment in the education sector, yet school education

outcomes need a more focused policy intervention. The results of Class X and Class XII in 2016-17 academic years show a dismal trend. The overall pass percentage of students in Class X was 70%, while the percentage in case of government schools was 64%.



There are of course sharp district wise variations in the pass percentage with certain districts faring much better than others.

In case of Class XII, the overall pass percentage was 43% while that in government schools it was 39%. This shows the low skill base for future employment opportunities in the state.

The state government has recently introduced smart classroom program in over 700 schools. An independent evaluation of the impact of this program is crucial, and correctives need to be invoked where required.

In case of vocational education, of the four functional ITIs, the enrollment was 94% while in case of the 11 functional polytechnics it was barely 32.5%. A study conducted by NEDFI revealed that students had a stronger preference for four year degree courses than Diplomas because of perception of better employability.

The data on employment also shows a worrying trend.

Year	Total worker	Total Non-worker	Work Participation Rate (WPR)
1991	399782	464776	46.24
2001	482902	615081	43.98
2011	587657	796070	42.47

Source: Census Data 2011

The above table reveals a decline in the work participation rate over the last three decades, perhaps indicative of the growing unemployment levels.

Year	Number in Live register			Percentage increase in Live register
	Male	Female	Total	
2013	23,486	16,125	39,611	-
2014	22,115	20,120	42,235	6.62
2015	28,499	21,954	50,453	19.46
2016	37,505	27,200	64,705	28.25

Source: Data maintained by Employment Exchange.

The number of people registered on the live registers of employment exchange shows an increasing trend and in 2016 there was a 28.25% increase over the previous year, showing the growing challenge of unemployment.

This clearly indicates that the challenge of education, skills and employment must be approached in a holistic manner. Low educational attainment at primary and secondary levels feed into a low skill base level of the workforce. At the same time, the government will have to create employment opportunities in key sectors of comparative advantage. The cycle of dependency on government employment and related services must be broken for a sustainable economy.

9.5 Creating sound health care delivery systems

While there has been a marked increase in the hospital infrastructure in the entire value chain of health care service delivery— from primary to tertiary health care, there is a problem of absence of specialist doctors within the state in some key areas of health care. As a result, a large number of patients go outside the state for treatment and the out of pocket expenses on health care are substantial. The Government of Arunachal Pradesh had floated a universal health insurance scheme in 2014, which envisaged coverage of upto Rs 2 lakh per family from a list of 61 empanelled hospitals. The Insurance company (New India Assurance) which was selected to run the services had bid for an insurance premium of Rs 759 to be borne by the government. For a variety of reasons, the scheme implementation floundered and was discontinued. Now the government is proposing to move to a health assurance model based on cashless treatment with a select group of identified hospitals.

The challenges in the sector remain with respect to strengthening of district hospital infrastructure, rural preventive health care facility, and an effective health insurance/assurance model to reduce out of pocket expenses.

9.6 Digital revolution

The absence of robust connectivity is not just a challenge in the domain of physical connectivity but equally in digital space. Large parts of the state remain unconnected with optical fiber network, hampering the opportunities of using digital marketing tools, be it for agricultural produce or for tourism purposes. The Government of India has been making large investments through BSNL and Railtel for laying the networks, but a more imaginative approach would be required, perhaps by roping in private service providers, and allowing usage of transmission grids for digital networks. The state can ill afford to be deprived of the economic opportunities and knowledge dissemination flow which are possible on the digital highways.

9.7 Act East Policy

Contrary to the general perception that this region was isolated from the mainstream of Indian history, the people of the area had historical trade and cultural interaction with the people of Ahom (Assam), Tibet, Myanmar (Burma) and other parts of India. Presence of multiple trade routes of medieval period bears ample testimony to this assertion.

The British occupied Assam and Myanmar in the early part of the 19th century. For meeting their colonial interests, the British made structural changes in the economy and trade of the region. On the one hand, it destroyed a flourishing cottage industry and on the other, exchange of merchandise stopped and there was a snapping of cultural exchange with neighboring provinces.

India's 'Act East Policy' focuses on the extended neighborhood in the Asia-Pacific region. The 'Look East Policy' as originally conceived, was an economic initiative. The objective of 'Act East Policy' is to promote economic cooperation, cultural ties, and develop strategic relationship with countries in the Asia-Pacific region through continuous engagement at bilateral, regional and multilateral levels. This would provide enhanced connectivity to the states of the North Eastern Region including Arunachal Pradesh, with other countries in the neighborhood. This policy provides an interface between North East India, including Arunachal Pradesh, and the ASEAN region.

Various plans at bilateral and regional levels include steady efforts to develop and strengthen connectivity of the North East with the ASEAN region through trade, culture, people-to-people contacts and physical infrastructure (road, airports, telecommunication, power etc.). Some of the major projects include Kaladan Multi-modal Transit Transport Project, India-Myanmar-Thailand Trilateral Highway Project, Rhi-Tiddim Road Project, Border Haats, etc. The ASEAN-India Plan of Action for the period 2016-20 has been adopted in August 2015, and it identifies concrete initiatives and areas of cooperation along the three pillars of political securities, economic and socio-cultural.

India has built 160 km of the India-Myanmar-Thailand bilateral highway and is committed to build 120 km more, along with the upgradation of 71 old bridges on the route. On completion of the trilateral highway, the North East, and particularly Arunachal Pradesh, would open up to Southeast Asia, and allow freight and container trucks to move across the borders from India to Myanmar and Thailand.

India-ASEAN trade mainly flows through sea routes. The continental route to ASEAN that passes through India's North East has failed to attract the attention of governments in the past. After commissioning of the India-Myanmar-Thailand trilateral highway, vast opportunity of trade and commerce will emerge for Arunachal Pradesh and Assam.

This will enable Arunachal Pradesh to export power and horticulture products to ASEAN countries through the trilateral highway. Vast areas in the state that are under shifting cultivation may be brought under indigenous forest flora, horticultural and other cash crops and orchids.

Arunachal Pradesh would benefit immensely if the erstwhile Stillwell Road, which leads to Myanmar through Changlang district, is operationalized and an integrated customs check post established at the border. Opening up of trade routes with ASEAN through better connectivity and customs facilities, would create new opportunities, depending on complementarities of economic potential on either side of the border.

References

- Bhattacharjee, G. (2016). *Special Category States of India*, Oxford University Press.
- Elwin, V. (1964). *The Tribal World of Verrier Elwin*, Oxford University Press.
- Government of Arunachal Pradesh (2006). *Arunachal Pradesh Human Development Report 2005*, Department of Planning, Itanagar.
- Government of Arunachal Pradesh (March 2017). *Statement laid before Legislative Assembly under Fiscal Responsibility and Budget Management Act 2006*.
- Government of Arunachal Pradesh. (2009). *Arunachal Pradesh Development Report*, Department of Planning, Itanagar.
- Government of Arunachal Pradesh. (2015). *Estimates of State Domestic Product of Arunachal Pradesh (2004-05 to 2014-15)*, Directorate of Economics and Statistics, Itanagar.
- Luthra, P.N. (1993). *Constitutional and Administrative Growth of Arunachal Pradesh*, Directorate of Research, Itanagar.
- NITI Ayog (April 2017). *Three Year Action Agenda*.
- Rustomji, N.K. (1973) *Enchanted Frontiers*, Oxford University Press.
- Sharma, Manish. (2008). *Economy of Arunachal Pradesh*, DVS Publishers, Guwahati.
- Sundriyal, R.C., Singh, T., Sinha, G.N. (2002). *Arunachal Pradesh: Environmental Planning and Sustainable Development– Opportunities and Challenges* (eds.), Bishen Singh Mahendra Pal Singh, Dehradun.
- Website of Ministry of External Affairs, Government of India, www.mea.gov.in.