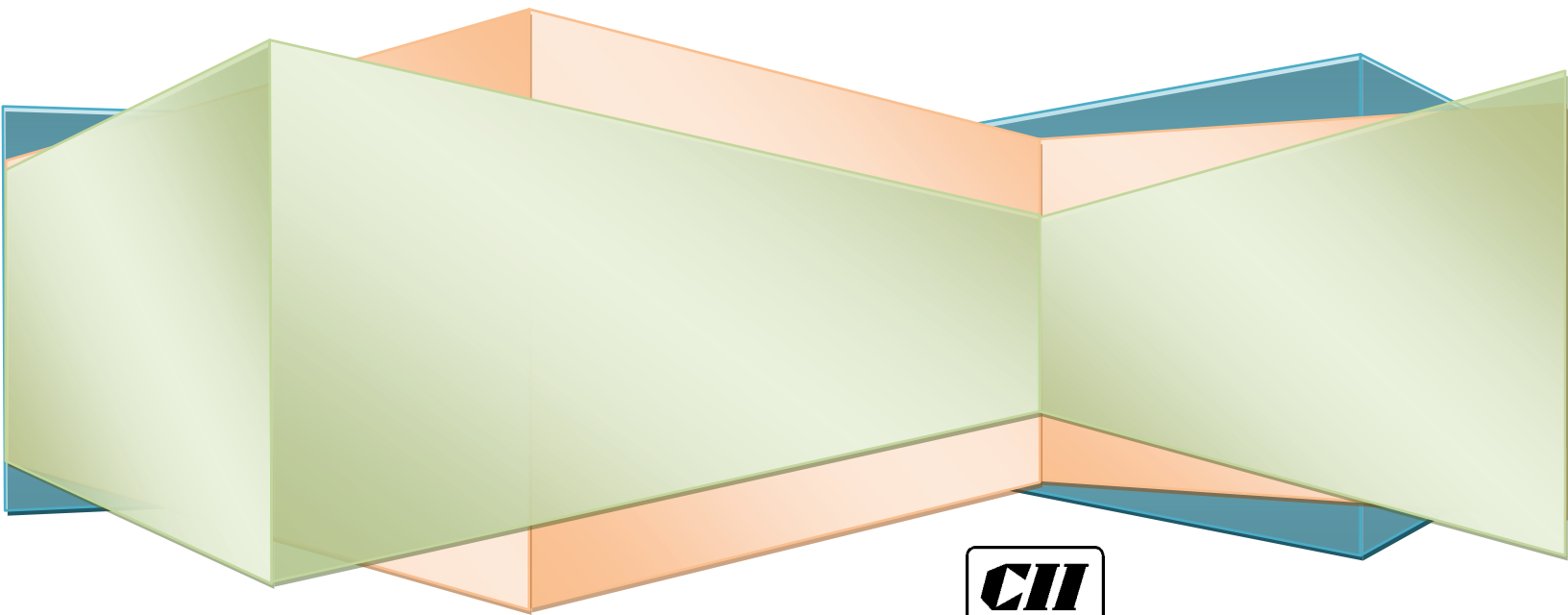




# ASSAM@75

Vision Document for Circa 2022

DEVELOPMENT | PROSPERITY | CONFIDENCE



Confederation of Indian Industry



## *From the Chairman's Desk*

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**Dear Friends,**

Assam is a land of colour, culture and knowledge. The strategic location, the discovery and utilisation of its natural resources like coal, petroleum and forestry and potential for plantation crops like tea etc ushered in an economic surge in Assam in the early 19<sup>th</sup> century. Till the 50's, the State's per capita income was higher than the national average and Assam quite truly was in the forefront of development.

Although the State had witnessed a slowdown post Independence, there is now a growing sense of realisation across the entire spectrum of the population of Assam for a need to develop, progress and align itself to the growth patterns of the country.

Assam is in the threshold of a new beginning.

Encouraged by Prof. C K Prahalad's vision of what India can achieve in the next 15 years, Confederation of Indian Industry has embarked on a visioning exercise for the country. The exercise of **Assam@75** is a part of CII's national agenda for a vision of India@75 to facilitate India's transformation to a global leader by 2022 where we expect Assam to play a major role.

We carried out the entire exercise innovatively, at the same time keeping in view Prof. Prahalad's core principles i.e.:

- Aspiration must always exceed present resources, requiring a big stretch.
- Progression towards the vision must be a process of discovery of 'folding in the future'.
- There must be innovation and development of 'next practices'.



This vision document has been prepared with the themes of 'Development, Prosperity and Confidence', keeping in mind the needs and aspirations of the people, the core competencies of the State in respect to the resources from the State's enlightened manpower, culture, nature, water, bio diversity etc.

We captured the aspirations of about 500 people from Assam spread across a wide cross section of stakeholders through workshops, interviews and interactions. The spectrum included students, politicians, farmers, bureaucrats, academia and civil society. This was supplemented by desktop research and diagnosis of various sectors and development of future scenarios.

The document echoes the voices of Assam.

I am sure the synthesisation of the aspirations and sustained endeavour for the growth of core competencies will reposition Assam, among the front ranking States of the country.

I also take the liberty of highlighting some key findings of the document below so as to present the context and perspective of our visioning exercise:

- **People's participation through Municipal Board and Village Unayyan Committee is imperative for successful realization of the Vision.**
- **Stimulating and enabling growth drivers of a higher order will navigate the State towards the Vision**
- **Assam has to reinvent itself through a message of change and higher aspiration resonated across the State**
- **The State will have to deepen its economic engagement primarily through the PPP mode to widen its resource base.**
- **Rural empowerment and cultural revitalization will have a critical role in the larger scheme of development activities.**

I wish to thank all the administrators, eminent academicians, citizens representing civil society and eminent members of the Government who provided us with critical feedback and whose valuable inputs guided us in conceptualising and formulating this path breaking document.

I also wish to thank the Department of Business Administration, Gauhati University which was mandated to carry out the visioning exercise in order to develop the document.

**Dr Bhupati K Das**  
*Chairman*  
CII Assam State Council

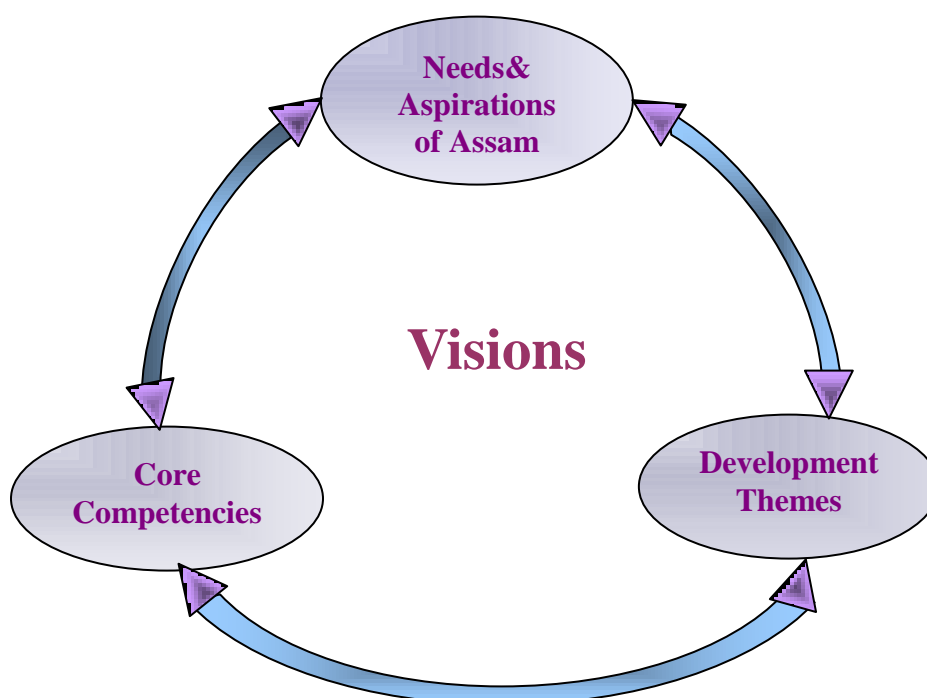
## ASSAM@75

Marked by rich and unique bio-diversity, Assam is the treasure house of rare flora, fauna and forest. It is home to multifarious ethnic, social and culturally diverse groups with unique customs and traditions. Geographically, it is the gateway to South-East Asia.

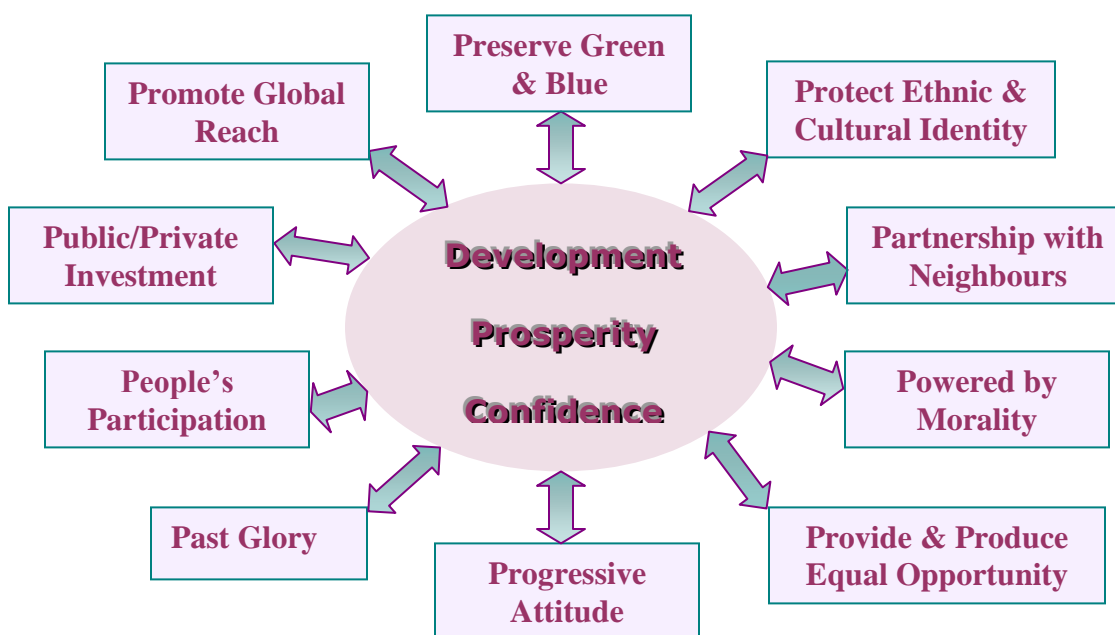
This vision document for Assam provides a vista/landscape to restructure our policies, framework, and economic model; to look for new economic opportunities and practices; to achieve a new vision of growth that will be much more broad-based and inclusive; to stimulate universality in aspirations, education and health, access to opportunities; and to bring about faster reduction in inequality in incomes, choices, share of voices, and life style.

Further, this document adds some new ways of measuring the progress of our State on various socio-economic dimensions.

This vision document has been prepared keeping in mind the needs and aspirations of the people of Assam, the core competencies of Assam in respect of human resources, cultural resources, natural resources, water resources, bio-diversity etc.



The needs and aspirations have been enveloped in 10 Ps culminating in **Prosperity for All**.



## NEEDS AND ASPIRATIONS OF ASSAM

- **PEACE:** People of the State believe in co-existence of peace and progress.
- **PROTECT ethnic and cultural identity:** The State aspires to raise the general threshold of awareness regarding the indigenous cultural heritage as a means of revitalizing its distinctive cultural identity on the one hand, and to challenge the growing cultural illiteracy brought about by a disproportionate capitulation to technology and globalization, on the other. People want to see preservation and encouragement of Assam's rich cultural heritage in arts, craft, music, dance and literature.
- **PRESERVE GREEN AND BLUE:** Assam is a rainbow country with blue hills and green valleys. The State with unique bio-diversity is the treasure house of rare flora, fauna and forests. Urgent steps should be taken to prevent rapid decline of the State's unique bio-diversity.
- **POWERED by Morality:** The State is determined to do away with extremism and separatism and check decline of moral values among youth. It aspires to promote



harmony, amity and brotherhood and create opportunities of self-expression for everybody.

- **PROGRESSIVE AND POSITIVE Attitude:** The people feel that real progress is to be measured in terms of human well-being, health, education and access to opportunity. It is necessary for the people to inculcate the practice of constructive thinking.
- **PEOPLE PARTICIPATION:** Empowerment of the people by maximizing self-governance and participatory development through grass-roots planning will help to evolve a real development strategy based on the resources, needs and aspirations of the people.
- **PROMOTE global reach:** Besides opening up trade routes with its South East Asian neighbors the State aspires to be an export hub for human resources, education, healthcare, creative industry, handlooms, sericulture and handicrafts, and horticultural products.
- **PUBLIC/PRIVATE PARTNERSHIP (PPP):** The huge deficit of infrastructure in the State necessitates immediate resources for large-scale investment and resources must essentially come from Government and private investment. PPP mode may be explored in areas like food processing, tourism, plantations, power generation, urban infrastructure, roads, waterways etc.
- **PAST glory:** Assam's per capita income was higher than the national average and the State was in the forefront of development in 1950-51. Successive geo-political developments and disasters changed the economic landscape of the State. The State is now poised to return to its past glory which would require giant steps forward.
- **PROVIDE AND PRODUCE equal opportunities:** An integral part of development and prosperity is to ensure an equitable distribution of the benefits and create an environment of equal opportunity for all in respect of health, education, employment and access to world class facilities. Many youth are being diverted from productive jobs to militancy due to lack of adequate opportunities.
- **PARTNERSHIP with neighbors:** Geographically, Assam is the gateway to South East Asia; almost the entire boundary of the NE region (98%) is an international border. Opening up trade routes with Bangladesh, Myanmar and China can dramatically



expand economic opportunities for the State and accelerate its growth process. Further, high potential of mutual benefits from trade may act as a deterrent for countries engaged in providing a sanctuary to the insurgent groups of the region.

## CORE COMPETENCIES OF THE STATE

- **Human resources:** Assam has a large English-speaking, qualified and skilled manpower, available at low cost. The productive workforce constitutes 47% of the total population in 2007-08 and 48% of the population in 2022. Assam is likely to produce 124 lakhs highly skilled young manpower (age between 21 to 45 years) by 2022. Existing skills on weaving and sericulture is really unique in the world.
- **Cultural resources:** Assam, the land of multi-ethnicity and scenic beauty, has a wide spectrum of music, drama, and dance traditions both in the classical and in the folk genre. Assam can develop a culturally creative industry based on our core competency in cultural resources, which can make a huge contribution to the State's economy as well as to our social and cultural life.
- **Natural Resources:** Assam has been generously endowed in this area. Its natural resources provide a firm base upon which industrial development can take place. The potential of its forests, minerals, water and land resources provide scope for profitable and environment-friendly commercial exploitation.
- **Mineral Resources:** Geologically, Assam represents a wide stratigraphic spectrum with a host of mineral deposits among which oil and natural gas have been commercially exploited since the turn of this century. The other mineral deposits are coal, limestone, base metal, beryl, granite, clay, gypsum, iron, mica, mineral water, sillimanite and salt, of which no worthwhile utilisation has yet been made. This sector contributes to 7% of Assam's SDP and has a bright investment scenario.

Assam occupies an important position in the history of the oil industry in India. At present, Assam accounts for nearly 50% of on-shore crude oil production, the balance



being produced in Gujarat. The State has the highest success ratio (70%) in the world with respect to oil exploration. As on date, Assam has the maximum number of refineries (four out of eighteen) in India. It is the only State where both Oil and Natural Gas Corporation Limited and Oil India Limited - the two exploration and crude oil producing companies of India - have a dominant presence. Assam was the first State to have a gas based power plant in the country as well as in Asia. Assam accounts for one of the biggest pool of professional and skilled manpower engaged in the oil and petroleum industry. The State is also endowed with oil shale reserves capable of sustaining crude oil production of 140 million tonnes annually for 100 years. It also has a reserve of 295 mmt of low ash high sulphur coal but with ideal C/H ratio for coal liquefaction. With the State's inherent strengths built over a century and with the future potential, Assam offers opportunities for exploration in the oil and gas sector. The completion of the Assam Gas Cracker plant and the Aromatics complex at Dibrugarh will provide opportunities for setting up many more downstream industries based on their product mix. There are reserves of over 828.51 million tonnes of limestone and 320 million tonnes of the high grade variety in the North Cachar Hills and Karbi Anglong district of Assam.

- **Forest Resources:** Almost 27.4% of the land in the State is under forests. The major source of revenue from this sector is from timber (367 species), cane and bamboo (52 species), followed by stone-gravel-sand. The major species of timber available are teak, sisso, bela, khoir, sal, gamari, hollong, mekai etc. The State also occupies pride of place in the wildlife map of the country for her rich, varied and rare wildlife species (187 species of reptiles, 958 species of birds, 230 mammals belonging to 175 species (including the one-horned rhinoceros) which holds great potential for tourism. There are 5 National Parks and 17 wildlife sanctuaries in the State.
- **Water Resources:** The mighty Brahmaputra river and its 37 tributaries, flowing through Assam carries one-third of the combined annual flow of all the rivers of India. Along with the river Barak, Assam has the unique advantage of 430 million acres feet of water resources which could be used to generate hydro-electric power, widen the



irrigation network and used as an inland water transport network (cheapest mode of transport). There is also considerable ground water resources (3015 wetlands and Beels with an area of 100,815 ha) in the Brahmaputra and Barak river basins which holds good prospects for utilisation. Further, Assam boasts of 30,124 ha of swamp area and 5,017 ha of forest wetland. Another facet to her rich eco-diversity is the 217 fish species out of which 168 species have ornamental character.

- **Agro Based Resources:** 87% of the population in Assam is rural, with 74% dependent on agrarian and allied activities. The compound annual rate of growth in this sector has been 2.01% for the entire tenth plan period. The principal crop under cultivation (constituting 67% of gross cropped area) is rice. The area under major crops are:
  - **Cereals:** 80.8%, Fibres 9.6%, Oilseeds 3.3%, Pulse 3.1%, Misc. Crops 3.2%.  
The area under horticultural crops cannot be specified as most of it is grown on non-commercial lines in homesteads. There is potential (yet to be tapped) for rapid growth in many areas which can result in this sector providing vital inputs for agro-based and other industries.
  - **Horticultural Crops:** Citrus fruits, Pineapples, Peaches, Plums, Pears, Apples, Apricots, Walnuts, Arecanuts and a variety of vegetables.
  - **Spice Crops:** Ginger, Turmeric, Black Pepper, Cardamom and Cinnamon.
  - **Indigenous Crops:** Sericulture, Aromatic Plants, Herbal and Medicinal Plants (950 species), Orchids (293 species) and Ramie fibre.
  - **Plantation Crops:** Rubber and Forest trees of economic importance including fodder and fuel trees, cane and bamboo.
- **Locational advantages:** Assam is one of the seven sisters ideally positioned to be the hub of North East India. It is nearest to the fastest growing economies of Asia. Its connectivity through the proposed Asian Highways and Trans Asian Railways would open up for service sector growth and also for the growth of selected environment friendly industries. Its ideal location can help it to become the focal point of prosperity in a promising Region.



## **DEVELOPMENT THEMES**

Keeping in mind the aspirations of the people and core competencies of Assam, development focus will revolve around the 12 themes of:

- Urbanization
- Health
- Education and skills development
- Agricultural Revitalization
- Government services and public administration
- Science and technology
- Infrastructure
- Economic well-being for all (social equity in development; equal opportunities for all)
- World class innovations
- Arts, Sports and literature
- Moral leadership
- Environment

The synthesization of the aspirations and sustained efforts for the growth of core competency will lead to the emergence of the following vision, which shall make Assam proud after 75 years of Independence:

In 2022, Assam will:

- ❖ *Be a leader in human development and export hub for human resources;*
- ❖ *Be a leader in culture and creative industry;*
- ❖ *Be a benchmark State for the capacity to accept and benefit from diversity;*
- ❖ *Be the most admired State for its capacity to preserve and enrich the ‘blue hills and green valleys’;*
- ❖ *Offer a superior quality of life for all;*
- ❖ *Be a leader in knowledge-intensive, ecologically-friendly economic activities;*
- ❖ *Have world-class urban and rural infrastructure;*
- ❖ *Provide equal opportunities for employment suiting people’s locational and community choices and to excel in their chosen walk of life;*
- ❖ *Provide outcome-driven, accountability-based governance at all levels*

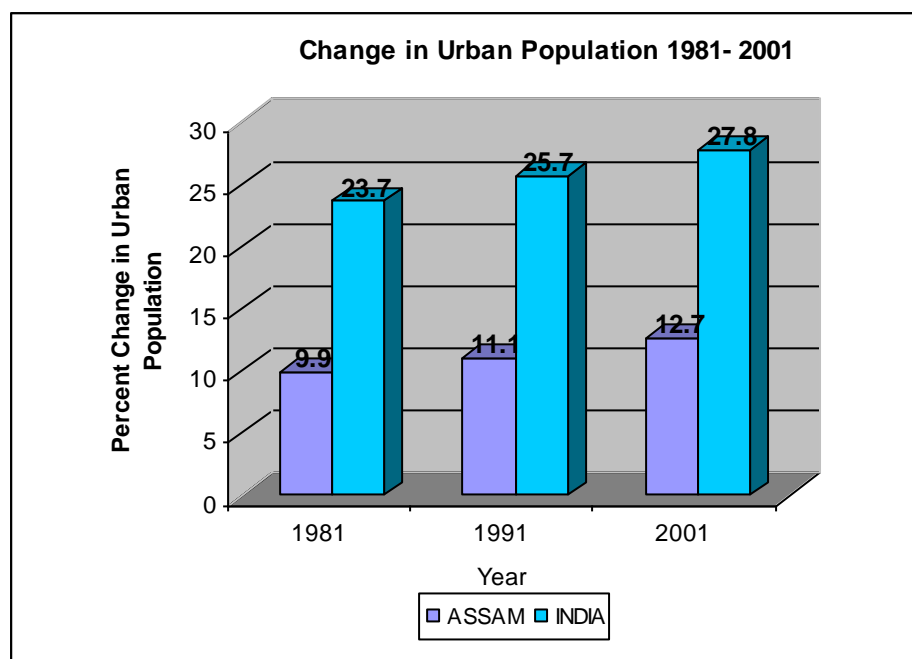
## **DEVELOPMENT FOCUS AND STRATEGIES**

The current reality and aspirations in 2022 along with the measure of our progress indicated in the following under each theme provide a snapshot of indicators that has been chosen to give an idea of the magnitude of change the State has to undergo in order to achieve its envisioned future. The projections are born out of the statistical interpretation of the aspirations of the people interviewed.

## URBANIZATION

### *Status and Challenges*

The process of urbanization is very slow in Assam due to the relatively slow growth of the secondary and tertiary sectors, and also, due to geographical isolation of the State in the past. Though, only 12% of the population of Assam lives in urban areas, these urban citizens are deprived of much of the civic amenities like drinking water, clean environment, quality infrastructure etc. In fact, in Guwahati which happens to be the capital city of Assam and the gateway to the North-East, water supply coverage has been achieved only to a meagre 30% with a daily supply of 3 hours. The growing cities have also begun to bear the brunt of congested roads, problems of sanitation, inadequate supply of water, improper treatment of sewerage, uncollected solid waste, poor public transport and connectivity barriers, water logging, inadequate housing, growing slums etc. All these problems severely decrease the quality of life and lower the well being of the urban population. The future challenge lies in upgrading these cities/towns by providing them with world-class infrastructure. Another problem that needs to be addressed is that the revenue raising capacity of the municipal bodies of these cities is very low. Consequently, radical structural reforms need to be initiated in respect of these municipal bodies / councils.



### *Strategic initiatives*

❖ **Green Urbanisation** – While increased urbanization is inevitable in today’s world, Assam would need to manage the urbanization process to ensure that the green cover is maintained. Planned urbanization that ensures preservation of the environment and the *green* image needs to be maintained.

- Green urbanisation
- Urban Corridors
- Mission Mode Approach
- Business Process Reengineering
- *Gaon Unnayan Committees*

❖ **Urban corridors** – Instead of targeting mega cities, emphasis will be laid on creating a network of a large number of clean and green small cities. Keeping in mind the elongated geographical layout of Assam, efforts will need to be made to link these small cities by 4-6 lane roads and most of the urban infrastructure (some of which include hospitals, educational institutions, malls, restaurants, entertainment parks etc.) can be accommodated in the vicinity of these lanes. In other words, 125 small towns/cities need to be upgraded to world class level and they will be connected through urban corridors as shown in the map. This will allow both the urban and rural population to access these urban facilities within an hour or so and also help the cities/towns to maintain green, reduce pressure on urban areas and check the unplanned growth of rural areas.

## District Map of Assam



- ❖ Assam should envisage urban renewal projects in a mission mode approach. It should focus on the integrated development of infrastructural services to secure effective linkages between asset creation and asset management, ensure adequate investment of funds to fulfil deficiencies, scale up delivery of civic amenities and encourage planned development of cities.
- ❖ Assam should undertake innovative reforms in all cities/towns in the following:
  - E-Governance covering all public service delivery
  - Business Process Reengineering (BPR) of municipal corporation/bodies, town committees, with special emphasis on their capacity building and upgrading the skills inventory.
  - Exploring PPP options and outsourcing in most of the infrastructure services (road maintenance, water supply-bulk, water supply-distribution, storm water drainage

- system, sewerage, sanitation (liquid waste), solid waste management, street lights, fire services, parks, open space development and management, community/ public toilets, slum upgradation, land registration)
- Reforms in Property Tax and tax collection procedures, levy of user charges
  - Use of GIS-based property tax system and accrual based double accounting systems
  - Define threshold service levels for the urban poor across various services
  - Initiate State level structural reforms for creation of cadre of municipal staff for different technical disciplines
  - Experiment with new financing mechanism-consumer financing, pooled financing, securitization, commercial borrowings, project financing etc.
- ❖ There is an urgent need to undertake renewable energy projects for generation of electricity from solid waste. The recent initiatives of the State Government for Guwahati city should be encouraged and replicated in the other cities.
  - ❖ The State should also frame policies to strengthen the *Gaon Unnayan Committees* (Village Development Councils) on the lines of municipal corporations and devolve some of the development functions to these Committees. This will ensure planned development of modern amenities in the rural areas.

## **AGRICULTURE REVITALISATION**

### *Status and challenges*

Over 87% of the population in the State resides in villages and, therefore, encompassing development is possible only with improvement in agricultural and allied activities. Assam's food grain production is stagnating at around 3.5 million tons with productivity varying between 1300-1450 kg/ha against the national average of 1800kg/ha. In animal husbandry and veterinary, the shortfall of animal protein origin is estimated at 1227 million liters of milk, 1,41,000 tones of meat and 1954 million eggs per year. Agriculture contributed to 56% of the GSDP in 1980-81 which has declined to 31% in 2006-07. This trend is expected to continue with Assam's economic growth being led by services.

Some of the key issues facing the agriculture sector are:

- **Non-viability of agriculture:** Some of the issues such as marginal holdings, declining productivity, non-availability of hybrid and high yielding varieties, and poor irrigation facilities have resulted in agriculture being non-viable from the farmers' point of view; the farmer barely breaks even on his input costs in many areas of Assam.
- **Marginal holdings:** The land size per farmer is small making it uneconomical to adopt modern agricultural methods and equipments.
- **Shift from agriculture:** As a result of the non-viability of the agricultural sector, low prestige attached to agriculture accompanied with high literacy in the rural areas, youth are shifting from agricultural jobs to non-agricultural jobs resulting in non-availability of skilled manpower for agricultural jobs.
- **Increase in fallow land:** All the above factors have led to a large portions of land left uncultivated.
- **Declining Productivity:** Due to a large proportion of marginal holdings and inability to modernize, the productivity in a number of crops has declined over the last decade.

➔ Assam Export Zone  
➔ Bio-technology parks  
➔ Mega Food Parks  
➔ Commodity/mandi markets and derivative markets

### *Strategic initiatives*

- ❖ The agriculture sector employs a significant proportion of population; hence this vibrant and otherwise viable traditional sector is critical to the State's prospects. The *Assam's Agriculture Policy* should be formulated envisaging 4 to 5% annual growth in farm output. The policy should be built around the following principles:
  - Conservation of natural resources, protection of forest and soil, conservation of rainwater and of natural ecosystems like swamp and beel, with special emphasis on water management and micro-irrigation
  - Application of modern bio-technology in collaboration with R&D centers and reduction of the distance between 'Lab' and 'Land' in the transfer of technology
  - Regulation of use of ground water and for harvesting of rainwater



- Integration of post-harvest processing with the production process; it should recognize the importance of focusing on the entire agriculture value chain
  - Protect and improve soil health
  - Timely availability of hybrid and high yielding varieties, fertilizers and other inputs to farmers
- ❖ As a part of revitalization of agriculture, a large number of agri-clinics and fish clinics (preferably in the PPP mode) need to be set up in different parts of Assam to provide technical support to the farmers. Agri-clinics would be equipped with soil testing lab, seeds testing and diagnostic labs, tissue culture labs, and would provide all kind of technical consultancy including adoption of biotechnology and precision farming methods, plus training to the farmers. This initiative will address the problem of knowledge deficit, poor farmers' linkage to universities and best practices and poor services of current extension system (the agri-extension system has virtually collapsed in the State partly as a result of constraints on non-plan expenditure)
- ❖ To overcome the drawbacks arising from small holdings and to attract youth, there is a need to introduce rental markets for mechanized farming and irrigation
- ❖ The policy should also advocate a change in strategy from a grain-based approach to a diversified approach including high value-added horticulture, poultry, livestock, dairy, bamboo, plantation, fishery etc.
- ❖ The targeted food grain production must be increased to 6.5 million tons by 2015 and further to 9 million tons by 2022. This can be achieved by bringing more areas under irrigation, using high-yielding varieties and precision farming. At least 30% of the jhumming in the hill areas needs to be replaced by plantation corps. A substantial portion of the waste land (76631 ha) needs to be used for rice-cum-fish culture. Out of the existing 2 lakh ha. under miscellaneous trees and groves not included in net area sown, 1 lakh ha need to be brought in under plantation corps in a phased manner.
- ❖ The focus areas within the agricultural sector include:
- Horticulture - pineapple, lemon, pomelo (short-term); orange, cashew (long-term)
  - Spices - ginger, turmeric
  - Medicinal and aromatic plants-patchouli, vetiver, stevia, sugandhmantri long-pepper, sarpagandha, coleus forskholi, brahmi, agar, vanilla (long-term)

- Bio-diesel - jatropha and pongamia in waste land
  - Bamboo and bamboo products - cultivation of selected varieties
  - Dairy - milk production - additional 50 million litres, fodder cultivation, mini milk-processing plants
  - Fish - table fish and ornamental fishes – autostocking, semi-intensive culture in unused portion of the beel fishery
  - Floriculture
- ❖ There is also a need to establish an ‘Assam Export Zone’ for export of ginger, orange, joha rice, organically produced fresh fruits, vegetables, fresh flowers, medicinal and herbal plants.
  - ❖ Bio-technology parks need to be established for promoting high-tech agriculture (details under innovation)
  - ❖ Accelerated agricultural growth will require diversification into horticulture and floriculture which in turn imply structural changes in the relation between agriculture and non-agriculture. Diversification requires effective marketing linkages, supported by modern marketing practices including introduction of grading, post-harvest management, cold chains etc.
  - ❖ There is need to encourage the development of modern agricultural markets/mandis. Further, contract farming is a potentially effective way of attracting corporate investors to help establish market linkages and also provide farmers with necessary inputs, extension and other advice.
  - ❖ Mega Food Parks should be set up in different parts of the State, which will house mother processing units and central stores for raw materials. There will be secondary processing units and stores at different locations to support the mother plant.
  - ❖ Farmers should be protected against market and other risks by appropriate measures. Commodity/mandi markets and subsequently derivative markets is a step in this direction.

## HEALTH

### *Status and challenges*

Assam needs to upgrade its healthcare infrastructure not only for its own people but also for patients from the other States in the North East and the Region. We see a great potential in the health care sector for South-East Asian countries (including Bangladesh, Bhutan and Nepal). Assam needs a radical improvement in the health infrastructure and healthcare services which is reflected in the significant number of patients going outside the State for treatment (approximately 500 per day). Approximately 500 patients per day go outside for medical treatment with revenue drainage of approximately Rs.1200 crores per annum.

Further the health indicators also depict a relatively poor picture of the health care infrastructure of Assam. The infant mortality rate in Assam is 68 against an all-India rate of 58; the birth rate is 25 and the death rate is 8.7; the number of hospital beds is 0.6 per 1000 population. The challenge lies in reducing the infant mortality rate, birth rate and death rate to half by 2022 and providing health care facilities to 346 lakhs people of Assam and several lakhs from outside.

### *Strategic Initiatives*

- ❖ The beds per thousand population should increase from the current 0.6 to 3 which means an addition of 86,034 number of beds against the existing number of 18,000+ beds. A significant observation in this regard is that an addition of 1 bed generates an employment for additional 8 personnel (4 directly and 4 indirectly), amounting to 6.8 lakhs employment.
- ❖ The number of doctors per thousand should increase from 1.2 to 2.3. Medical practitioners (MBBS/BDS etc.) are not lacking in the State. However there is a serious shortage in the number of specialists/ super specialists (almost 10 times less than the requirements).
- ❖ Government should provide a thrust to health insurance. Health insurance to poorer communities through Micro Finance Institutions (MFI) and Non-Governmental Organizations (NGOs) could be initiated
- ❖ The number of medical colleges has to be increased to thrice the existing number of 10, of which 3 are under construction and 4 are ayurvedic and homeopathic colleges.

- ❖ There is also a need to establish one model hospital in each development block to provide improved health care facilities to the rural people. The recent initiative of the State Government to set up 126 model hospitals, one for each constituency, is a step in the right direction. These model hospitals will also act as centers of excellence for training nurses, technicians and paramedical forces.
- ❖ In view of the higher incidence of cancer, cardiac, diabetes in the State, atleast 2 super-specialty hospitals in each area at the quaternary sector needs to be set-up to improve the health care facilities in the State, in collaboration with foreign hospitals/ universities. Apart from offering superior treatment to patients, major emphasis will be on R&D, development of new methods of treatment, application of nano and biotechnology in medical science etc.
- ❖ In addition, the State should also have one Cardiovascular Research Institute with a major thrust on development of cardiac valves, artificial limbs, stem cell technology, implantation techniques and development of new courses on bio-medical engineering, and genetic engineering. This will be supported by a super-speciality hospital attached to it and by the existing engineering and management institutes.

## **EDUCATION AND SKILLS DEVELOPMENT**

### *Status and challenges*

Education will be the most critical key to empowerment of Assam. Assam@75 will give topmost priority to education and skills development to meet the requirements of the North East Region as well as to become an educational export-hub for its neighboring States and countries. It will achieve universal enrolment in the primary sector of education and appreciably increase the enrolment in the secondary and tertiary sectors of education. A major thrust will be to improve the human development index of Assam from 0.386 to 0.75 by 2022.

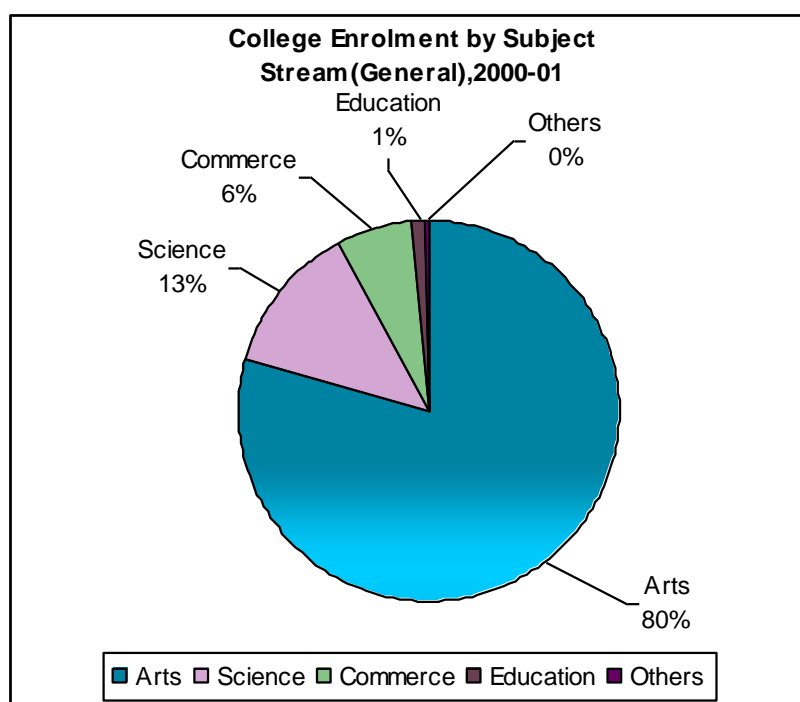
Assam@75 will also see an emergence of the quaternary sector in education, with major emphasis on R&D, development of new products and services based on our core competencies and commercialization of the same through the development of entrepreneurship.

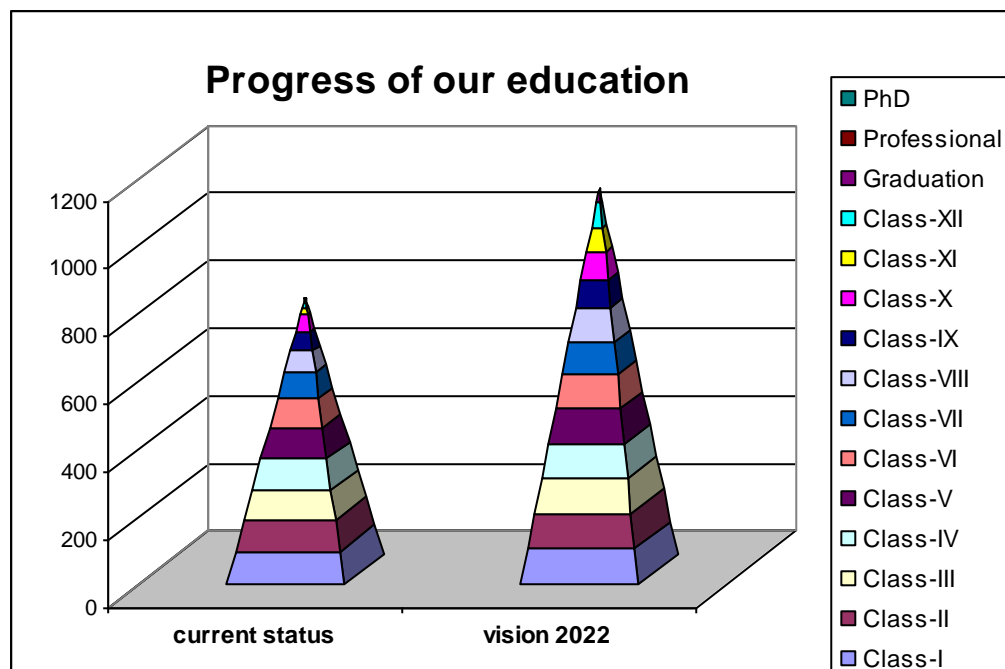
Subsequently, there will be an increase in the number of new universities and institutes of international repute.

Vision Elements	Measure of Progress		Current Reality (%)	Aspiration in 2022 (%)	Gap
	E=Existing	N=New			
Enrolment status	Gross enrolment ratio (E)	Primary School (Class: I-V)	88.16	100	11.84
		Middle School (Class: VI-VIII)	63.65	95	31.35
		High School (Class: IX-XII)	40.83	80	39.17
		Higher education (including polytechnics)	7.81	30	22.19
		Professional	2	10	8
Education level	Literacy rate (E)		63.25	100	36.75
	Cultural Literacy (N)		poor	High	

Type of School/Institute	Number of Institutes	
	Current Status	Vision 2022 (additional requirements)
Primary Schools	30499	-----
Middle Schools	9716	2587
Secondary Schools	4476	2424
Higher Secondary & Junior Colleges	751	3238
Graduation Colleges (including vocational)	348+	630
Professional Institutions	41	214

- College enrolment in the science stream is very poor (12%) and declining against the all-India average of 20%. In contrast, enrolment into the arts stream is 74% in Assam against an all-India average of 46%. Assam@75 should see to the rectification of this imbalance by placing more emphasis on science and technical education.





- Similarly, Assam has a dearth of trained teachers (in the primary level up as well as the higher secondary level). The skills inventory of the teachers needs to be immediately augmented by providing training programmes on a continuous basis.
- Further, infrastructure in the primary, secondary and higher secondary levels in terms of availability of computers and laboratories does not stand as optimistic indicators to educational up gradation.

### *Strategic initiatives*

- ❖ Though Assam has 30,499 primary schools, the average enrolment is only 22, with little qualitative improvement in the education scenario. Many schools are running with a minimal number of teachers. Efforts in the future will be to upgrade the academic infrastructure as well as the number of trained teachers in the primary schools. Orientation should be towards large schools with multi-dimensional development efforts in the spheres of culture, music, arts, physical sports etc.

- ❖ One model center of excellence in primary education with major intake from rural areas should be set up in each of the 219 blocks of the State to impart world-class education
- ❖ Physical and cultural education should be an integral part of the curriculum in the upper primary and secondary education to enhance the cultural literacy of the State. Further, participation in NCC should be made compulsory from the secondary level onwards.
- ❖ Focus on *English, Science* and *Mathematics* in the secondary educational structure is essential.
- ❖ A significant thrust is necessary to increase the number of higher secondary, graduation and professional institutes.
- ❖ Awareness campaigns and policy initiatives to ensure compulsory enrolment and zero-dropouts.
- ❖ There is an urgent need for reorganization of the entire system of technical education by upgrading and revamping all ITIs and polytechnics of the State. Initiatives such as promoting industry participation under PPP in the management of ITIs should be replicated in all ITIs. The industry partners are closely working with some of the ITIs of Assam for skills development. All medium and big companies should be asked to adopt atleast one ITI for skills development which is relevant for the Industry. The State Government should also ensure access to vocational training to all. Urgent need is also felt to establish many new vocational training centers in collaboration with industry. For a population of 3 crores, the present vocational training facilities is too meagre.
- ❖ Considering the current capacity of nursing, technicians and paramedics training schools and demand for the same in the hospitals, there would be acute shortage of nurses in the near future. The proposed 126 model hospitals coming up in each constituency should be asked to set up training schools for nurses and paramedics. Large hospitals in the private sector, tea sector, oil sector, military hospital university hospitals should be encouraged to train nurses, technicians, and paramedics.
- ❖ Assam will add a new dimension to the education scenario by redefining a new sector termed as the '*quaternary sector*' which will enroll upto 1% of the relevant age-group. This sector will focus on:
  - (i) R&D on rich natural resources, cultural resources and other creative industries
  - (ii) Product development based on our resources



(iii) Creation of entrepreneurs

As a part of this cultural revolution, Assam Cultural University will be set up in collaboration with the Arts and Humanities Research Councils, U.K. and the Columbia

Ph.D and Masters in Crafts, Culinary art, Dance, Decorative art, Design, Drawing, Fashion, Film, Music, Photography and Video, Painting, Sculpture, Theatre and Performing Arts

University School of Arts, U.S.A., with the objectives of revitalizing our cultural heritage and simultaneously, producing high quality manpower required for creative industries. Research and development on subjects like crafts, culinary art, dance, decorative art, design, drawing, fashion, film, music, photography and video, painting, sculpture, theatre and performing arts will be prominent.

It is to be noted that the creative industries make a huge contribution to the British economy by providing employment to almost two million people and by contributing £11.4 billion to their balance of trade, well ahead of the construction industry, insurance and pensions, and twice that of the pharmaceutical sector.

- ❖ In addition to premier institutes like IITs, national universities, many R&D centers will be established in Assam to give thrust to research and innovation.
- ❖ The educational system should place more emphasis on higher education, especially setting up science and technological institutes and vocational training institutes.
- ❖ Affirmative action will have to extend all the way from school education through to higher education levels. It is also necessary to strengthen infrastructure for vocational education and skills development to enable the youth to improve their productivity and incomes.
- ❖ At least 6 knowledge cities should be created in different parts of the State. In this initiative, participation of private parties may be encouraged in the PPP mode. Two such knowledge cities, proposed to be set up in Boko-Chaygaon and Bongaigaon, should be replicated in other parts of the State for imparting skills in various disciplines.

## ENVIRONMENT

### *Status and Challenges*

The image that springs to one's mind when we think of Assam is that of the blue hills and green valleys. Assam has 34.4% of the total geographical area under forest cover. Assam is facing environmental degradation with the rapid growth of immigrants from Bangladesh and unplanned development. The challenge that Assam faces would be to maintain the balance between development and preservation of our blue and green status. The Assam Vision@75 will ensure that rapid growth is environmentally benign. In the context of global warming, Assam must remain a green economy.

### *Strategic initiatives*

Some of the strategies and initiatives that need to be adopted include:

- ❖ Assam should encourage only those industries which are less polluting and demand less land. Heavy industries that usually demand large land area should not be encouraged.
- ❖ Stringent environmental norms with respect to air, water and soil should be laid down and adhered to. Real time monitoring of air and water quality should be in place. Alternatively, identify a few big water ponds in different areas and observe the visits of sensitive birds to such ponds etc.
- ❖ Strict Enforcement of PPP (pollutants pay principle); persons/organizations responsible for creating pollution should be accountable to clean the pollution at their own costs.
- ❖ Protection of *beels* and waterbodies, which are facing severe encroachment in recent years. In case of *beels*, trenches should be constructed along their boundaries to prevent the degradation, erosion and siltation of these *beels*.
- ❖ To preserve our valuable forests, the joint forest management concept needs to be reinforced with the collaboration of village welfare committees. The forest management policies need to be revamped and consolidated in the light of increased community participation, reciprocal commitment for protection and sense of ownership, augmenting productivity, linking forests with livelihood and gainful employment generation. Ensure that local people realize more sustainable benefits from conservation and protection of forests and wildlife sanctuaries etc. rather than seeking temporary benefits from destruction



of the same. Such sustainable benefits can be sought through tourism, floriculture, plantations etc.

- ❖ Mass awareness amongst school children, citizens for environmental cleanliness
- ❖ Urbanization is often associated with pitfalls such as waste generation and inadequate waste management. Urban slums, overflowing dustbins, poorly managed dump yards all contribute to the poor quality of life that the citizens enjoy. The State should adopt a two-pronged approach to waste management – waste elimination and waste management. There is also a need to segregate organic and inorganic wastes and explore the possibility of generating electricity.
- ❖ Shifting of people living in the forest areas to other localities for providing inviolate space for wildlife. This is very much needed for national forest reserves like, Kaziranga, Manas etc.
- ❖ Encourage high-rise buildings so that there is sufficient space for green cover in the urban areas. Similarly, appropriate action is necessary to increase green cover in the rural areas through the *Gaon Unnayan Committees*.
- ❖ Encourage the corporate sector to participate in development of degraded land for forestry, without compromising community priority
- ❖ Encourage forest regulations to allow industry to partner farmers in undertaking agro-forestry for augmenting the raw material base for forest based industries like paper and pulp
- ❖ A water management policy that facilitates judicious use of this precious resource encourages use of water preservation techniques such as water harvesting, needs to be discussed, debated and agreed upon at the earliest timeframe.
- ❖ Comprehensive review of environment clearance procedures to ensure transparency in the system and avoid unnecessary delays

## **GOVERNMENT SERVICES AND PUBLIC ADMINISTRATION**

### *Status and Challenges*

The role of Government is vital for the overall growth of the State as well as for inclusive growth of all. The desire of the people of Assam is that the State should enjoy the benefits of a

transparent and clean administration and hence, the Government machinery needs to be completely overhauled with the objectives of providing:

- Transparency, fairness, and legitimacy of all governance processes
- A clear focus on execution of development projects and welfare schemes
- Substantial reduction of corruption
- Quick and low cost delivery of services.
- Reduction in bureaucratic red tapism
- Ease in starting and running a business (currently, it takes up to six months)
- Simplification of procedures
- People participation in the development process. People like to participate in governance and determine the allocation of public resources and public services they receive. Above all, the people of Assam would like peace to return to their lives, leakages to cease and development to take place.

Decentralization of Government services, participation of local bodies mainly, *Gaon Unnayan Committees* (Village Development Council) in the formulation and implementation of village level projects.

### *Strategic Initiatives*

- ❖ IT and E-Governance should be extended to all aspects of public delivery and every project/ scheme should be assessed from the point of output generation rather than performance measurement in terms of the amount spent
- ❖ Capacity building as well as induction of professionals is required for providing quick and efficient services
- ❖ Better design of projects and implementation mechanisms
- ❖ Constant performance appraisals of Government bureaucrats/ public ratings of all administrators, including MLAs
- ❖ Performance rating of ministers, MLAs, key decision makers at State and District level to be public domain information

- ❖ Decentralization of Government services, participation of local bodies mainly, *Gaon Unnayan Committees* (Village Development Council) in the formulation and implementation of the village level projects: Since the *Panchayat Raj* systems did not live upto the expectations of the citizens, the devolution of development functions to local bodies (*Gaon Unnayan Committees*) would be a step in the right direction. This local body exists in most of the villages of Assam and has been functioning without any problem for several decades. This local body undertakes the responsibility of overall development of the village, schools, village roads, and also organizes festivals.
- ❖ More professionalism in Government officials and incorporation of sound corporate practices
- ❖ Strict enforcement of RTI act and ensure that quality and correct information is made available to the public

## SCIENCE AND TECHNOLOGY

### *Status and Challenges*

Historically, Assam has not given due importance to science and technology as reflected in the low intake in the science stream in colleges, low number of science and technology institutes, low application of scientific techniques in agriculture, business and government. Assam will seek high-tech solutions to all the problems of low productivity in agriculture and its allied, efficient exploitation of natural resources, and poor productivity in small scale units and SMEs. As a part of development of science and technology, focus will be on utilization and development of bio-resources of Assam using modern bio-technology. Assam stands to gain tremendous economic benefit through commercialization of bio- resources using modern biotechnology. Nano technology, food processing, pharmaceuticals and healthcare also hold a lot of promise for growth.

### *Strategic Initiatives*

- ❖ Assam is one of the richest States in the country in terms of its diverse biological resources. It is considered as the “centre of origin” of Citrus and Banana, Maize, Tea and Ramie to name a few. *Muga* and *Eri* silk worms, aquatic fauna and vast microbial resources of the

State are invaluable bio- resources for development of biotech-based industries. Bamboo and rattan resources, orchid and other ornamental plants and medicinal and aromatic plants can be exploited for commercial production.

- ❖ The following thrust areas have been identified for development of the State through application of biotechnology:
  - (i) Horticultural biotechnology
  - (ii) Floricultural biotechnology
  - (iii) Agricultural biotechnology
  - (iv) Drug extraction from plants/pharmaco-genomics
  - (v) Microbial biotechnology
  - (vi) Food processing technology
  - (vii) Seri- cultural biotechnology
  - (viii) Fresh water aquaculture
  - (ix) Industrial biotechnology (for composite material and waste management)
  - (x) Petroleum biotechnology
  - (xi) Forest and environmental biotechnology
  - (xii) Medical biotechnology
  - (xiii) Veterinary biotechnology
  - (xiv) Bio- informatics
  
- ❖ A cluster of high quality research centers should be established in the universities/ institutes for each of the thrust area preferably in collaboration with Industry
- ❖ A Technology Development and Application Centre (TDAC) should also be established to facilitate coordinated and collaborative R&D. There will be separate sub- centres under the ambit of this centre for orchid research, cane and bamboo research, *muga* and *eri* silkworm research, plant genome research and microbial biodiversity aimed at their conservation, development and commercialization.
- ❖ The development plan should envisage linkage of the biotech industries with all primary and secondary production sectors namely,

- Primary agri-horticultural production with special emphasis on organic farming, use of hybrid and high yielding varieties.
- Post harvest management of agri-horticultural produces with special emphasis on export
- Processing of surplus farm produces to add value
- Promotion of cultivation and value addition of medicinal plants
- Promotion of agro-forestry and captive forest cultivation

## **WORLD-CLASS INNOVATION AND INDUSTRIAL INCUBATION HUB**

### *Status and Challenges*

The industries that seem to be naturally poised for value-addition in Assam include high-tech agriculture and agro-processing, creative industry, tourism, healthcare, energy sector, and fisheries. Development of industrial incubation hubs is necessary to assist entrepreneurs in harnessing the potential of these sectors in the State. Though the State is lagging behind others at present, all the universities and research institutes of Assam including IIT-Guwahati are building new facilities, faculties, and research groups for nano-technology and biotechnology. The challenge before us is to consolidate R&D activities through coordinated and collaborative efforts to bring out new products, new methods and apply the same for improvement of productivity of all the sectors identified for development of the State.

### *Strategic Initiatives*

- ❖ Assam should focus on medical research for incorporating the recent advances in nanotechnology and biotechnology. In view of the high incidence of cancer and cardiac diseases, research emphasis should be on the discovery and application of nano-technology for early detection of cancer and cardiac diseases and cure of the same.
- ❖ Medical research should also focus on application of nanotechnology in medical equipment, pharmaceuticals, therapy treatment, internal detection of injury etc.
- ❖ Nanotechnology and biotechnology research should also be encouraged to develop pesticides, and new techniques to utilize and develop bio-resources in Assam etc.

- ❖ A proper Government policy at the State level is needed to facilitate transformation of these prospects into reality. Policy should encourage chemists, biologists, doctors, physicists, engineers, and computer scientists to all get intimately involved in nano and bio-technology development.
- ❖ There is urgent need to develop exclusive science parks for nano-technology, biotechnology and pharmaceuticals to provide a common platform to all the scientists drawn from different disciplines and also to encourage participation of the industry and entrepreneurs. These parks will act as incubation hubs for generation of new products, ideas, processes etc. Entrepreneur development will be one of the key objectives of the science parks.
- ❖ Further, the following farm sector research-cum-production activities have been conceptualized for faster transfer of technology and economic development of the State:
  - Techno-aquatic parks in the pattern of Singapore Aquatic for induced breeding of 196 freshwater ornamental fish and coloration: The park will also facilitate intergeneric and interspecific hybridization. As many as 196 varieties are available in the North East Region. Many of them are not available elsewhere except for a few in Myanmar. Some varieties available in the Himalayas have unique characteristics, which may be very attractive for importers. Assam sees big prospect in this sector both in terms of money value and employment.

On a similar line, the following parks should be established:

- Green parks for organic farming of fruits and vegetables, a silk production unit with or without green houses.
- Herbal technology parks for medicinal and aromatic plant cultivation
- Yellow-green parks for floriculture or oil seed production
- Blue parks as fish seed farms, echo-hatchery units
- Protein parks as mushroom and soybean cultivation units

- Nano and biotech for medical and bio-mass
- Techno-aquatic parks
- Green parks
- Herbal technology parks
- Yellow-green Parks
- Blue Parks
- Protein Parks
- New Forests



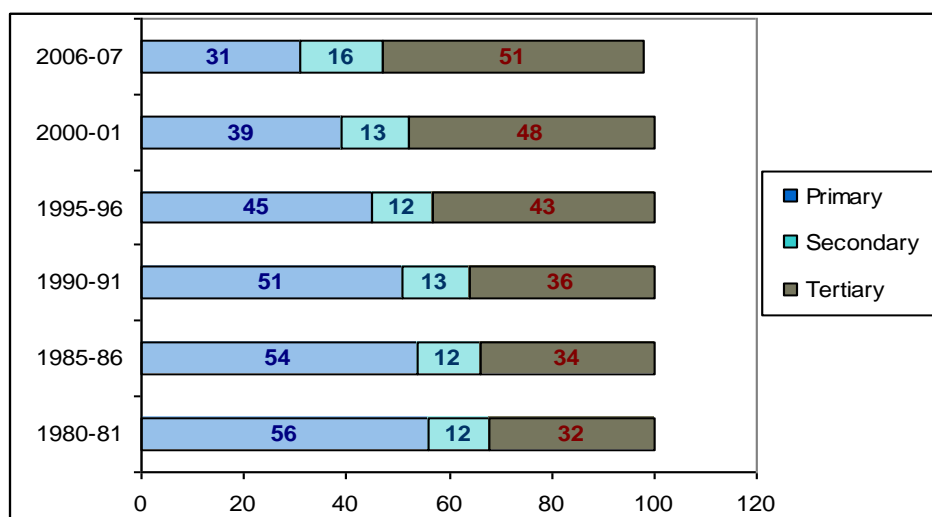
- New forests as units for plantation of long duration medicinal trees and other forest tree species in the degraded forest areas as well as captive plantations proposed to be undertaken by paper mills and plywood industries to ensure uninterrupted supply of pulp wood and plywood. The State Government can lease out degraded forest areas under the joint forest management system to public and co-operative societies for long term economic benefits.
- ❖ A proper Government policy will facilitate in translating these prospects into reality.

## **ECONOMIC WELL-BEING FOR ALL**

### *Status and Challenges*

Economic well-being is a key ingredient for peaceful coexistence of various communities in the State. Differential growth patterns lead to resentment among the people who do not enjoy the fruits of growth as much as others do. Every citizen in the State should have access to opportunities for betterment of their lives. Assam would provide equal opportunities for employment suiting people's location and community choices and to excel in their chosen walks of life.

Compared to the national average, the economic performance of Assam leaves much to be desired. The GDP growth rates (%) of Assam have been 3.50 (Seventh Plan), 2.84 (Eighth Plan), 2.73 (Ninth Plan) and 6.36 (Tenth Plan) against 6.46, 7.12, 5.58 and 7.76 growth rates (%) of India respectively. To catch up with India's per-capita income, Assam needs to grow at a rate of 13.39% p.a., which seems to be unachievable with the current practices, development models, strategies, product and service portfolios, and organizational structures. Based on the achievable growth rates of 2% in primary, 7% in secondary and 10% in the tertiary sectors, the estimated GSDP draws closer to Rs.1,88,854 crores by the year 2022 (against the required GSDP of Rs.4,03,302 crores) and a per capita income of Rs.54,459 (against the required Rs.1,16,299) leaving a huge gap of Rs.2,14,448 crores and Rs.61,840 respectively. The major challenge before Assam is to bridge these huge gaps by bringing about radical innovations in its product and service portfolio and in organizational practices.



Assam's economic growth has been driven by growth in services, which accounts for over 51% of the State's economy. The share of agriculture, on the other hand, has been constantly declining from 56% in 1980-81 to 31% in 2006-07.

### *Strategic Initiatives*

- ❖ In view of the large gap to be filled, the major thrust will be on exploration of new opportunities in agriculture and its allied sectors, green industry, creative industry, tourism, education, healthcare, hi-tech labour-intensive industries such as IT / ITES, food processing, electronics and allied products manufacturing, construction, light engineering, hotels and restaurants, and retail so that a maximum share of the GSDP comes from these new products and services. Emphasis will be on those new products and services that allow the maximum participation of both the rural and urban populations and also those industries that are non-polluting and less land consuming.
- ❖ **Tourism industry** needs to be revitalized through the introduction of many new tourist products and attractive packages. Emphasis should be on:

- Tourist Circuits
- Pilgrim tourism
- Tea and Golf tourism
- Cultural Tourism
- Techno-aquatic parks
- Induced breeding, coloration and hybridization of Ornamental fishes

- (i) Laid-back holidays, with primary focus on:
- Wildlife, nature, and 'medium-to-low risk' leisure-adventure activities such as angling and rafting
  - Lifestyle (tea and golf tourism)
  - Heritage, ethnicity and cultural tourism
  - Well-established ports-of-entry for tourists transiting to major tourism location-clusters in North East India
  - Pilgrimage tourism
- (ii) Secondary focus on river cruises, steam locomotive tours, nostalgia (war memorials), various festivals, etc.
- (iii) Tertiary focus on regional centres for business conventions/meetings, education and healthcare / recuperation linked tourism, and recreation and amusement at ports-of-entry and ports-of-transit.
- ❖ In view of the above, an Integrated Tourism Board needs to be established to rope in tourism, transportation, cottage industry, hotels and resorts, tea gardens, golf, adventure sports, forests, water transport, archaeology and cultural institutions for overall development of the sector.
  - ❖ Initiative is also required to set up tourist circuits and develop tourist packages to attract more tourists to this East Himalayan State.
  - ❖ A large number of farm houses may be created in strategic locations in rural areas to provide recreation facilities for day trips and also to cater for bed and breakfast. In addition, innovative eco-friendly *dhabas* and resorts should be encouraged in tourist places, and along the vicinity of the main highways throughout Assam. The present trend in this direction is quite encouraging.
  - ❖ Bamboo should be promoted as the timber of the 21<sup>st</sup> century. Research initiatives should be taken up immediately for faster growth of bamboo to reduce gestation periods which will encourage farmers to cultivate bamboo on a large scale. Major emphasis should be also on manufacturing bamboo products-bamboo boards, floorings, panels, corrugated sheets, furniture, handicrafts, building materials, gasifiers, pickle from shoots etc.
  - ❖ In view of the high demand for local fish and the high remunerative prices, fishery is another area which can generate employment to lakhs of youth. Assam has 3015 number

of wetlands spreading over 1,00,815 ha, and rivers with 2,05,000 ha. The fishery sector is facing problems of severe depletion of stock, encroachment, siltation of wetlands, fish diseases, and indiscriminant killing of fry and fingerlings. The State should take the following innovative steps immediately to preserve the wetlands and use it for productive purposes:

- Conversion of all shallow areas into culture tanks in the pattern of *Kelloru* lake of Andhra Pradesh. The remaining part should be reserved for auto-stocking-cum-culture, raising fry and fingerlings in the tank and releasing the same in the beels when flood water recedes.
  - Digging of edge of the beel upto one meter depth instead of demarcation. Current practice of erecting demarcation *bundh*, which proves to be counter-productive (destroying breeding grounds, fish foods, and increasing anthropogenic activities), should be abandoned.
  - Excavation of 900 ha of *beel* areas in order to increase the physical life of the wetlands
  - Total conservation of forest beels with 5017 ha area for naturally enhancing auto-stocking of indigenous species
  - Establishment of more eco-hatcheries and release of seeds in rivers and *beels* during the floods
  - Emphasis should be on induced breeding, coloration and hybridization of 196 ornamental fishes of the North East and marketing of these species throughout the world
  - Setting up techno-aquatic parks for research and training of youth.
- ❖ Setting up of large number of agri-clinic, fish clinic, and veterinary clinic in the PPP mode in different parts of the State to provide technical services to farmers and to make up the deficiency in the existing extension services of the Government.
- ❖ The State should come up with sound policies and incentive schemes to promote creative industry in a meticulous way. The proposed Assam Cultural University, and the new faculties of performing arts in all universities and other research institutes to be established for this purpose, should be encouraged to go in for research, training-cum-production centers to kick start the creative industry on a commercial basis.

- ❖ At least two super-specialist hospitals in each of area of cancer, cardiacs, diabetics, kidney transplant, should be established in collaboration with foreign hospitals/universities in the quaternary sector.
- ❖ The State should also take effective steps to revitalize the tea industry in collaboration with the Tocklai Tea Research Institute, Jorhat. The tea industry should also be encouraged to diversify its product portfolios into tea tourism, herbal and medicinal plants, organic farming etc.
- ❖ In view of the high demand for construction materials and the need to replace many *pucca* houses, emphasis should be given on the development of low-cost housing using renewal resources of Assam. Research in this area should be entrusted to high profile institutes like IIT-Guwahati, RRL and the proposed National University in Guwahati
- ❖ Efforts should also be made to develop low cost rural technology like rural transport vehicles, water purifiers, aero-boats, food processing instruments, machinery for handlooms and handicraft. The recent initiative undertaken by IIT-Guwahati should be encouraged and replicated
- ❖ In view of high consumption of durable and non-durable goods, the organized retail sector is likely to witness a boom in Assam. The State Government should take initiatives to establish strong linkages between farmers and the retailers, and to encourage packaging at the farmland.

## **ARTS, SPORTS AND LITERATURE**

### *Status and Challenges*

Inadequate efforts have been made to popularize the rich cultural heritage of Assam resulting in degeneration and loss of its glory and of the identity of many forms of music, dance, drama etc. Assam should focus on revitalization and popularization of the various forms of dance, music, drama, musical instruments, arts and architecture, and painting. By 2022, Assam would emerge as a new hunting ground for the rest of the world for new forms of dance, drama, music, arts, painting, architecture etc.

### *Strategic Initiatives*

- ❖ In addition to the proposed Assam Cultural University, many centers for visual performing arts should be created in different parts of the State. New faculties in Performing Arts would be created in each university and many inter-disciplinary courses would be introduced. The ultimate objective is to revive the rich cultural heritage as well as to support and create the creative industry in a big way.
- ❖ Focus will be on universalization of all the festivals of Assam—*Bihu, Raas Yatra, Ambubachi*, and the unique festivals of the different tribes.
- ❖ Flexible syllabus in school curricula will incorporate music, dance, drama, painting etc.
- ❖ Arts and historical parks need to be established to motivate youth and to train and prepare them for the creative industry.
- ❖ *Devadasi, Ojapali, Satriya*, and the folk dances of each tribe will be introduced in major tourist places and pilgrim centers where possible, to depict our culture in live forms. Simultaneously, culture tourism will also be popularized.
- ❖ Various forms of cultural heritage would be showcased through events, TV programmes, cultural fairs etc.
- ❖ Textiles of Assam (*Muga, Pat, Eri*) are unique and only one of its kind. Assam will focus on promotion of customized design textile for ceremonial purposes. High-tech solutions will be sought to mass customize the same.
- ❖ A modern film city needs to be established in Assam to support film production in different languages.
- ❖ Assamese Theatre, which is unique, will traverse the boundaries of the State.

- Arts and Historical parks
- Modern Film City
- Assam Cultural University
- Performing Arts Faculties
- Mass customization of handloom and handicraft using hi-tech
- Universalisation of Assamese Theatre, Festivals and Performing arts

## MORAL LEADERSHIP

### *Status and Challenges*

Like India, Assam would rank low (hi=good governance; poor=rampant corruption) in the corruption-perception index. This has resulted in the accumulation of development funds in the hands of a few, and in the poor delivery of Government services to the general public. Assam needs to face the challenges of severe degradation of moral values and cultural illiteracy especially amongst the youth. In order to institute social equity in development, Assam@75 should focus on improving cultural literacy, and moral values.

### *Strategic Initiatives*

- ❖ Introduction of music and art forms in the school curricula to uplift the mental complexion of young students. Physical and cultural education should be an integral part of the curriculum in the upper primary and secondary education to enhance the cultural literacy of the State. Further, participation in NCC should be made compulsory from secondary level onward.
- ❖ Acknowledge performance accountability as a public domain information
- ❖ Declaration of assets' value by key persons in authority
- ❖ Evaluation of the credentials of prominent political figures on a public forum
- ❖ Media can play a vital role in inspiring the common masses by projecting well-doers as role models.
- ❖ Popular forms of art like film craft should be encouraged to propagate moral values, and portray personalities with high moral stature.

- Performance Accountability as Public Domain Information
- Evaluation of the credentials of prominent political figures
- Declaration of assets by key persons in authority

## INFRASTRUCTURE

### (1) Road, Water, Rail and Air Connectivity

#### *Status and Challenges*

The biggest constraint in Assam and the entire NER has been the poor state of infrastructure, in particular, roads, railways, waterways and power. Given the difficult terrain and strategic situation of the region, road density should be higher than the national average of 75 km/100 sq.km. and the quality of the roads should be improved significantly to make them motorable. The total railway track length in the entire region is 2,592 km, with 88% track confined to Assam. Assam's track density is 32 km per 1000 sq.km. against the national average of 710 km per 1000 sq. km. Inland waters like the Brahmaputra and Barak in Assam have become virtually non-functional. Air connectivity to the region is poor: three of the State capitals of the North East Region do not have airports.

#### *Strategic Initiatives*

- ❖ In the first phase, all the district headquarters should be connected with 4-6 lane highways so that the travel time from Dhubri-Sadiya is reduced to 12 hours from 22 hours now. In the subsequent phase, all the sub-divisional headquarters and development blocks need to be connected.
- ❖ All the villages should be connected to the 4-6 lane network through State highways with black tops.
- ❖ There is an urgent need to modernize and face-lift both the vessel and water ports to rejuvenate the earlier flourishing modes of water transportation. So far, only 16 routes have been explored, covering a distance of 743 kms out of a total navigable length of 3839 kms. Modernization of water transportation should also be considered with the aim of attracting tourists. Water navigation is expected to reduce the traveling/plying distance and time between places situated on the opposite banks of the Brahmaputra, apart from being a cost-effective mode of transportation.
- ❖ Railway tracks are to be upgraded from single track to double-track so that a greater number of inter-city trains can be introduced in the line of *Shatabdi*.



## (2) Power

### *Status and Challenges*

Electricity is very essential for industrialization and upliftment of quality and productivity of rural life, therefore power generation and distribution in Assam needs the most urgent attention. While the current generation capacity of 253 MW must be increased to 2163 MW by 2012 and double by 2022, on the other hand, full utilization of the current installed capacity (574 MW) must be ensured in the near term. All households in the State must be provided uninterrupted electric power supply by 2022.

### *Strategic Initiatives*

- ❖ Assam is currently generating 240 MW (27% of demand) from its own sources, against a demand of 900 MW in the peak hours in spite of the fact that Assam has a strong potential for hydro, thermal and gas based power projects. Action should be taken to implement atleast 30-40 mini hydel projects and 10 large hydel projects. In cases where possible, hydel power projects should support the irrigation projects.
- ❖ There are several large irrigation projects which have been abandoned. These projects should be revived for irrigation-cum-power generation.
- ❖ The current scenario reveals that only 72% villages of Assam have been electrified (18168 against 25124 villages) with a mere 20% of household connections. The State should provide 100% household connection with uninterrupted power supply in both the urban and rural areas, by 2022. Village electrification needs to be designed to support the minor irrigation projects in the rural areas, to counter the increasing cost burden of diesel-run irrigation projects.
- ❖ The per-capita power consumption is currently very poor, standing at 116 KWH. This low State figure is probably due to inadequate power supply and slow pace of industrialization in the State. The State should ensure that per-capita consumption is augmented through uninterrupted power supply to all households, office establishments and the industry.
- ❖ There is an urgent need to initiate structural reforms in the power sector in order to reduce inefficiencies in production, transmission and distribution.
- ❖ Focus on generating more power from non-conventional sources
- ❖ Cost and time overrun is the greatest concern in the completion of power projects. There is an urgent need to undertake programs on project development and execution.

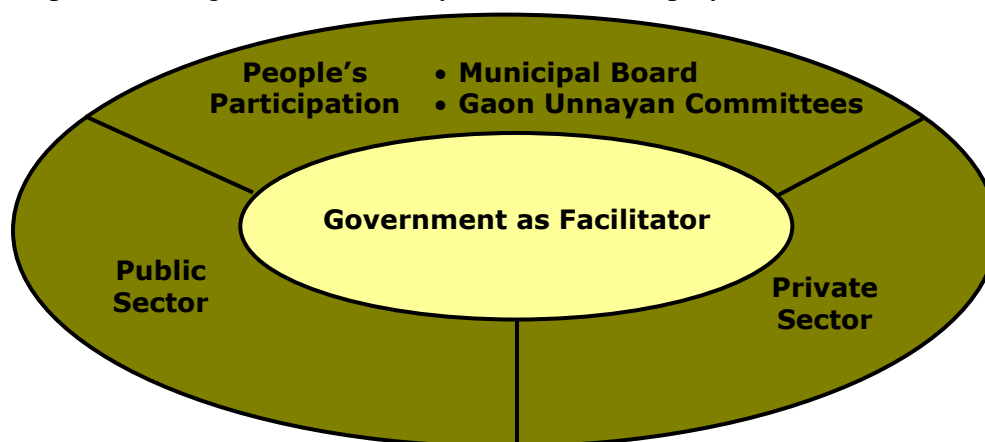
### (3) Water Supply and Sanitation

Clean drinking water needs to be provided to all habitants as most of the habitations face a serious problem of high iron content (almost 93% of the habitations have been affected). Though efforts have been made to supply clean pipe water to all, many schemes have slipped-back; necessitating a restructuring, including design of the same. Emphasis should be on house connection rather than supply of water through street taps. Considering the high rainfall of Assam, urgent action should be placed on rain water harvesting and surface water resources rather than on ground water.

Assam @ 75 will ensure that there is no compromise on the modern sanitation facilities, both in the urban and rural areas. The aim is to provide cent percent sanitation facilities to all. For sustainability of water supply schemes and 100% sanitation programmes in rural areas, the Government agencies need to collaborate with the *Gaon Unnayan Committees*.

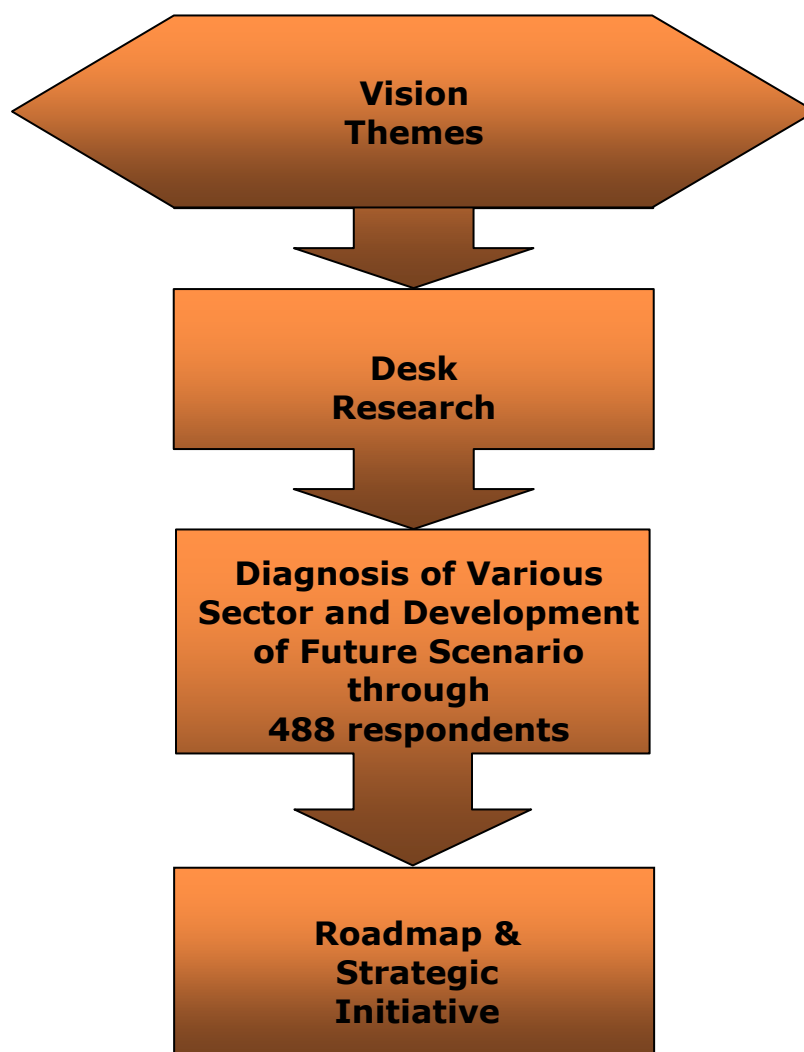
## CONCLUSION

Assam has many inherent competitive advantages in natural resources, rich cultural heritage, and human resources and is also ideally located. In spite of all its strengths, Assam has not measured up to reasonable standards of growth both on the physical and cultural fronts. There is an urgent need for Assam to reinvent itself and to have a ‘paradigm shift’ in policy, development strategies and in the way resources are deployed.



We need to see active collaboration on the part of the Government, the private sector, the public sector and the most importantly, the people of Assam. The Government needs to recognize the potential of the State and act as a facilitator to growth and prosperity.

## APPROACH / METHODOLOGY



Aspirational visions of about 488 people across a wide section of stakeholders were captured through workshops, interviews and interactions to arrive at our vision themes and strategic initiatives for the way forward.



Students	295
Administrators	27
Politicians	9
Trade Union Leaders	2
Civil Society	85
Industry	35
Academia	22
Sector experts	13
<b>Total</b>	<b>488</b>

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