Draft for discussion

INDIA INDIANS TELUGUS VISION 2047





FIVE STRATEGIES FOR INDIA AS A GLOBAL LEADER



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INDIAN ECONOMY AS GLOBAL ECONOMY – INDIANS AS GLOBAL CITIZEN AND INDIAN INC AS MULTINATIONAL

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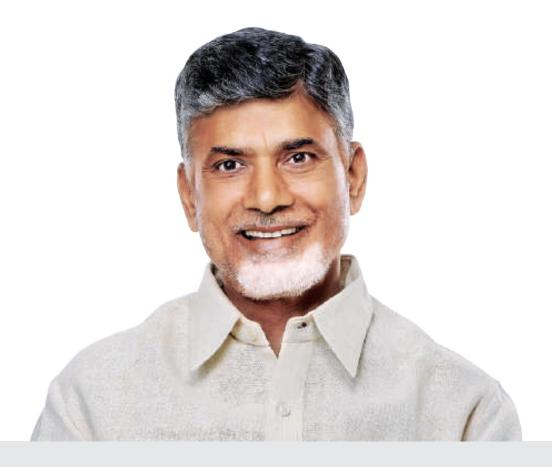


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Foreword Vision - Leadership and Resolve

India has been able to overcome the pandemic with relatively limited impact. The growth rate of the economy, which is the highest among the G20 members, is an indication of the country's resolve and tenacity. Firm indications are that Indian economy is expected to become the 3rd largest economy in the world behind only USA and China in next five years.

With the combined contribution of its current growth rate, investment climate, technology advancement and skilled human resource capital, India is on the path to become a developed country by 2047 coinciding with the 100th year of its independence. Multiple global agencies have also estimated that the country can become the second largest economy in PPP-adjusted terms by 2047.

India was one of the largest economies from around 500 BC until 1758 AD and We, as a nation, have to challenge ourselves to once again become the largest economy of the world when we celebrate 100 years of independence.

In my experience and opinion, India needs to set up a challenging target of becoming a global leader through a structured vision and strategy. Post the economic reforms of 1991, as the Chief Minister of Andhra Pradesh (1995 -2004), I was able to understand the outcome of the economic reforms of 1991 and used the combination of technology, knowledge and the advantage of the country's demographic dividend to drive the economy of the state to unprecedented levels.

The "Swarna Andhra Pradesh 2020" vision document published during my tenure is a prime

example of the impact of advanced planning and visualization of the economy. The economy of Cyberabad envisioned as a greenfield city is a testimony of this vision. In fact, the Hyderabad ecosystem reached a level of 4% of India's GDP during the past few years.

Again, during my tenure as the Chief Minister of the newly formed state of Andhra Pradesh during 2014-19, I was instrumental in preparing a vision document, "Sunrise Andhra Pradesh 2029" which resulted in the economy of the state growing faster than all the bigger states with a five-year CAGR of 10.8%.

Learning from these experiences, it is my belief that a vision document should be planned for the country setting specific strategies to achieve the challenge of becoming the world's largest economy. It is my desire that every Indian citizen should rise to this challenge to make these 100 years as the "Century of India".

While formulating this vision and strategy we should not lose our focus on our traditional values of family and community togetherness. Towards creating a harmonious community, the document, the "Sunrise Andhra Pradesh 2029" emphasized the values of "Samaja Vikasam" and "Kutumba Vikasam".

The true classification of a developed country can only be achieved by the participation of people. Towards this objective, I would like to introduce the concept of P4, which envisages a People, Public and Private Partnership, targeted at reducing the gap between the poor and rich. This "Poor to Rich" concept is elaborated in this publication.

Information, knowledge and technologies are increasingly becoming the fuel for the progress and prosperity of the world of today and the future. That is why some of the thought leaders ascribe that we are at the "Beginning of Infinity" where limitless growth is possible through knowledge. The use of artificial intelligence, augmented/virtual reality, natural language processing, machine learning etc. have immensely changed how information/knowledge is now accessed

and used. At the same time, inaccessibility of information/knowledge will handicap such people to move forward in the world.

Providing a solution to this asymmetry are knowledge platforms that can greatly enhance accessibility and reduce such disadvantages. India 2047 needs to consciously develop and promote targeted knowledge management to reach out to all sections of Indians, to ensure that the digital divide is not accentuated, but is reduced.

To work on these issues and to offer innovative solutions to the people, I have established a research & innovation think tank, Global Forum for Sustainable Transformation (GFST) as a platform for promoting sustainable transformation of global economies and communities. GFST intends to do this through knowledge dissemination, policy research, advocacy and setting up a start-up ecosystem. The vision is to create a platform for networking, mentorship support and investment funding to nurture innovative entrepreneurship in India and across the world, including strengthening of the public policy mechanism.

In the present publication, GFST explores a set of 5 select themes along with many sub-themes, that have the potential to make India redeem its natural status of global economic leader. The publication is not meant to be a comprehensive compendium of all actions to be taken, but focuses on some significant strategic areas for consideration. I invite suggestions from thought leaders, corporates, leaders, students and others to create valuable ideas and strategies for India to adopt. I also hope that the publication will enthuse the readers into reflecting and stepping forward in making their contribution to what I consider as the most significant nation-building agenda for India's future.

Nara Chandra Babu Naidu

Chairman,
Global Forum for Sustainable Transformation.

Introduction New India Needs New Governance Model

With GDP having nearly doubled over the past 10 years, India has become the world's third-largest economy in PPP terms and the fifth-largest in nominal terms. India's per capita annual income has quadrupled since 1991. Although this remains well below the world, the rapid rise in per capita income has led to a significant fall in India's poverty rate, a growth in life expectancy, education access and well-being.

The share of the labour force in the agricultural sector has declined from about 70% in 1990 to less than about 40% today. There has been a corresponding rise in labour demand from the industry and services sectors, in which employment has more than doubled in the past three decades (MoSPI, 2019). This has gone hand in hand with growing urbanisation, with the share of the urban population increasing from 26% in 1990 to 34% in 2019, and many cities experiencing rapid growth. India is also pursuing a structural economic shift towards manufacturing. The sector has seen an annual average growth rate of 7%, outpacing agriculture but growing more slowly than the services sector (RBI, 2020).

Foundation of this growth was laid by the economic reforms during 1991. Thereafter, many reforms for structural shift, policy changes, improving the investment climate, simplification of taxation rules, investment in health and education of its people, and multiple other actions have manifested in many achievements.

We believe that, India has reached tipping point in its journey of economic growth and well-being of its people affording an opportunity to double its economy in every seven to eight years instead of current trend of nine years or more. Basis, next generation of reforms, and future ready institutions, India can envision to be a net exporter of services including technology, net exporter of

energy, deploying skilled Indian men power as a global workforce in addition to exporting its goods.

Hence, it is imperative for India to focus on several institutional and policy modifications in order to effectively harness the global potential and better prepare citizens to avail themselves of these changes. Among many challenges that India has before it, some are listed below

Low participation rate of women in its labour force

Challenges of internal security particularly arising from misinformation and hate campaigns on social media

Modify the blue books for response to tackle the disruption of global supply chains due to pandemics and other disasters

India would need multiple think tanks, both domestic and global, and research organizations to stay ahead of curve and forecast

Government, both state and central, would have to set up new institutions for facilitating and regulating requirements of emerging economy and the challenges posed by it.

Agile governance , strategy of change management and institutional development on a log frame based approach, in a flat world, should guide governance, both public and private, on this journey of economic growth of India to be global economy. Every one, Indians, governments, corporates and other institutions will have to share their responsibility for their own growth and be part of nation building.

Vision@2047 is a new challenge before the entire nation, its governments, its people and its business. The enormity of this venture may be gauged from the fact that it entails making the destiny of over one and half billion people towards

one aspiration – to be affluent, to attain a good quality of life and to be happy both individually and as a community.

The driving force of this vision will likely be an expansive social and economic transformation program covering the whole geography of the country and across all sections of the people and their respective communities and cultures. The focus always remains on farmers, women, youth, MSME and those left behind. This transformation program will also simultaneously be factor, efficiency and innovation driven since different sectors of the country's economy is at different levels of developmental maturity.

Such an immense nation building program cannot be achieved adhering to the Business-As-Usual approach of the last so many decades. It warrants adoption of a new vision driven approach with setting of clear and definite but transformational targets to be achieved within specific timelines and accomplishing determined milestones. This includes developing and nurturing new governance institutions with vastly enhanced capabilities through organization development, change management and skill building.

This document is a draft for initiating and provoking thoughts around these and other strategies possible. Going forward, GFST will be engaging with all stakeholders, thought leaders, thinkers, experts, students and others through multiple platforms of social media, debates, conferences among others to work out future strategy and action plan around each of the themes and sub themes. Therefore we solicit your comments, suggestions and critique for working out a detailed strategy and action plan in next few months.

Satya Prakash Tucker IAS (Retd) Sanjay Gupta IFS (Retd)





INDIAN ECONOMY AS GLOBAL ECONOMY – INDIANS AS GLOBAL CITIZEN AND INDIAN INC AS MULTINATIONAL



Share of India in Global GDP, Trade, Data Flow, Patents and Research

Indian economy accounted for more than a quarter of global GDP and trade from the time of recorded (estimated) economic history till about 1600 AD. Thereafter, the share of India declined drastically after invasions and during colonial rule. Currently India has 3.4 % share of global GDP, 0.35% share of global trade,1.95% share of global patents and 5.08% of international peer reviewed research papers which underlines the quantum of challenge for India to be an economic superpower and Indians to be global citizen.

Mindset of a Winner

Global macro-economic environment is just right for India to redeem its leadership position. Global consensus is that current decade is 'Decade of India'. "Can India convert this decade of India to century of India?" is the question. The answer to this question can be answered by the following-Indians, Indian Companies, Indian Research & Innovation Organisations (ecosystem) and government(s). Each of these need to have the mindset and conviction of that of a winner to achieve goals. Indians will need to have skills and creativity; Indian Inc will need to have efficient and innovative production system with ever improving benchmark standards; Indian Research Organisations will need to create design and technologies of future. Both the central and state governments must work together to foster a conducive environment, coordinate with the stakeholders involved, and serve as enablers. Following sections will be examine these expectations in detail for actions to be taken.

People – Job Ready Manpower – Global Performers

Changing Landscape of Skill Requirement

Countless researchers have established the positive effects of education and skilling on economic development, productivity, equitable growth, life expectancy and health, demographics, and other socio-political benefits linked with quality of life. Starting from a very low base, India has universalized elementary education and increased the enrollment in higher education. However, innovations in technology, automation, and globalization are changing the landscape of skill demand at an unprecedented rate. India Skill Report 2023 indicates that only about 50% pass outs from various courses are employable.

Contemporary jobs are increasingly dependent on cutting-edge technologies, but the technical curriculum is

struggling to keep up with this pace. Thus, creating a skill gap at the time of graduation itself. As automation replaces routine and physical jobs, millions across the world need to reskill/upskill or risk becoming obsolete.

Globalization is fast depleting location advantages and remote work has made it possible for organizations to hire from virtually anywhere for a myriad of job roles. In India, in addition to these global megatrends, the rising income, higher female LFPR and improving quality of life are further altering the skill demand landscape with higher cognitive and creative skills increasing in demand at the expense of menial IT skills and manual labour.

A study by McKinsey Global Institute (Skill Shift: Automation and the Future of the Workforce, 2018) looked at the impact of automation on the skill landscape and highlighted increasing importance of socio-emotional, higher cognitive, and technological skills and decline of basic cognitive and physical & manual skills.

- · Skill vocabulary is becoming more specific and modular
- Technological, socio-emotional, and higher cognitive skills are generally more in demand; basic cognitive and physical & manual skills are declining in importance.

Among technological skills, advanced IT skills, advanced data analytics, and technology design skills are rapidly increasing in importance. Basic digital skills, which have been very important during last decade, continue to grow in importance.

Higher cognitive skills such as creativity and critical thinking are rapidly growing requirements for the employers

Socio-emotional skills, especially skills like leadership, team management, negotiation, teaching-mentoring, etc. are becoming even more important.

Green jobs are emerging and existing jobs are becoming greener. A recent study on green skills and jobs (LinkedIn, 2022) found that while share of talent with green skills has increased at a CAGR of 6% in past five years, it has not kept pace with the growth in job roles requiring green skills (CAGR of 8%).

Reducing gap between curriculum and job requirements

Information asymmetry is one of the biggest challenges plaguing the skill ecosystem. Most of the students have to make a number of important decisions about their prospective career paths at secondary or senior secondary school stage. However, they do not have access to any information about the job roles on offer. Even at a later stage in their journey, most of the jobseekers are clueless about the quantum and breadth of opportunities available, and the associated skill requirements, expectations, job tasks, salary offered, etc.

Information asymmetry also poses certain challenges for employers. They lack a centralized source of information regarding the supply, demand, and quality of skilled workforce in the economy. Further, diplomas and degrees have lost part of their signalling power due to proliferation of programs & institutions and a lack of specificity.. Some intermediaries, such as LinkedIn, have tried to fill the void by creating skill assessments which provide additional datapoints to the employers on metrics that matter to them. However, the scope and reach of these intermediaries are limited in nature. Therefore, it is essential to unite corporates and higher/vocational institutions. Businesses shall be rewarded for their efforts in mentoring educational institutions and pushed to set up incubators. Corporates spending time as Professor of Practice in Universities should be recognised and incentivised through tax benefits for a minimum number of hours of teaching.

Several countries across the world have labour market observatories and career service portals (similar to the National Career Service Portal for UK) that provide these intermediary services and information to the employers as well as jobseekers. Singapore has a one-stop portal for all skilling needs (Skills Future) that the learners and employers can use for a host of services. We propose to create a unified portal that acts a labor market observatory as well as a one-stop portal for Indian jobseekers, employers, as well as education providers. Accordingly following two actions are proposed

Unified Skill & Employment Tracking System

A comprehensive information guide on each program at each level with detailed information on course content, rigor required, admission requirements, and labour market outcomes, can help youth make more informed decisions. Similarly, detailed information on job roles such as key tasks, qualifications required, selection process, salaries on offer, etc. can help students not just plan their higher education better, but also to make their transition to workforce smoother.

Academic institutions and employers will be onboarded on the portal as partners. Academic institutions can bulk upload their present and past students' data to the extent available. They will also create a profile of the institution on the portal and list information on their course offerings, including admission requirements, program details, graduate outcomes, etc. The industry partners will be encouraged to post their job roles along with details of qualification requirements, recruitment process, salary range, competencies expected, etc. The portal will also facilitate interactions between industry and academic institutions for curricula upgradation, on-the-job training, exposure visits, guest lecture, live projects, research partnerships, internships, etc.

Skills And Emerging Technological Universities/ Centers

Technological advancements, automation, and globalization call for an academic institution that is agile enough to respond quickly to changing market needs. The new age employers are increasingly looking for skills rather than degrees and diplomas. Further, to fully capitalize on the demographic advantage window that our country has, we need to provide employable skills at a very large scale in a short timeframe. While the government has invested significant finances and efforts in short-term skilling, the results have not been very encouraging as the quality assurance has been far from ideal, and the market doesn't see the certificates as credible alternative to the degrees. At the same time, proliferation of institutions in vocational education and training has taken the sheen from them. There's also a social stigma attached with traditional vocational education and training institutions. Therefore, the need of the time is a skilling university that is flexible enough to offer micro-credentials but has the prestige of a regular university; has academic rigor, but also provides sufficient practical exposure through industry collaborations Key attributes of the proposed university can be

- · Modular curriculum of varying duration
- Pedagogy learning while doing, instructors from prospective hiring companies
- · Focus on employability

ITI and Polytechnic has worst employability ratio

The India Skill Report 2023 indicate that among the vocational/ professional courses ITI and Polytechnics have worst employability ratio, 34% and 20% respectively. To improve their employability, these institutions need to be linked to industry and require complete reform of curriculum and investment in infrastructure and labs. The remote availability of these centers need to be leveraged to provide access to skills to those residing in remote areas. These ITI and Polytechnics will also play a major role in preparing skill ready persons for low skill high volume job providing industries as well as imparting soft skills.

Reskilling and lifelong learning

Improving skills to do the same job with more efficiency or as per new protocols or learning new skills as some of the current jobs will start becoming obsolete or less lucrative. To keep oneself employable, the need for continuous skill upgradation and expanding one's knowledge base has become more prominent like never before in the era of fast technological advancement. Many countries have initiated dedicated schemes and set up new institutions that guide the employees about the new skill set required

and connect them with the skill upgradation centres specifically established for the purpose.

Job ready education can create wealth in short span of one generation. For an example, due to large number of private engineering colleges established during early nineties in Andhra Pradesh, providing Information Technology and Computer Science degrees which were in demand by companies in USA, people form twin Telugu states had first mover advantage and therefore now constitute about one third of the diaspora of USA. Consequently, these early movers got the advantage of offshore service experience of about two decades which afforded them to move up in the administrative hierarchy of corporate governance and many of them they are now playing the leadership role of renowned global companies. Therefore it is essential that India identifies and focus on the technology and jobs of future to accordingly provide the education and skilling/ reskilling. The expenditure on upskilling/reskilling up to a certain limits can be made tax free.

Hybrid working mode (Online and Physical) to harness global opportunities

Crisis of COVID created an opportunity – Work from Home (WFH). In USA there was about 12 times jump as more than 60% people adopted to WFH during COVID. However, post COVID the percentage of WFH did not drop to pre-COVID levels. As of May 2022, about 30% people were still working from home as a planned option with varying number of days of WFH per week. In India, post COVID, the employers are planning, on an average, about 1.8 days WFH per week which is highest in world and almost matches the expectation of employees who as per survey desire to work about 2.1 days from home on an average. Generally, and more specifically for India, women have higher preference to WFH which may have positive impact on women labor force participation rate, if planned and encouraged systematically.

Companies have assessed the tradeoffs of WFH on productivity visa vis cost reduction. Employees are reporting multiple benefits. Primary among them being reduction in commuting time. Not all the jobs can be discharged remotely. Even the jobs that are suitable for WFH, may need few office visits. As a result, a new category of jobs is emerging that can be discharged remotely – work from

home or work from anywhere. Therefore, the norms and protocols of WFH are becoming more and more structured as companies are reoptimizing working arrangements.

WFH opens up huge opportunity for people with skills but residing in remote areas or rural areas due to certain constraints. Now these people can join formal labor force and provide services to offshore or domestic clients. The affordable, reliable and extensive internet network in India provides the basic infrastructure for WFH. Government and companies need to coordinate to place a system that can link the people with WFH jobs.

Companies - Indian Inc to be trillion \$ multinational companies

Market Capitalisation of Indian Companies - Economic history of developed economies is evidence that the growth, welfare and wealth is created by the businesses which may be owned by government or private. Be it auto and machine manufacturing companies driven growth of Europe and USA, semiconductor companies driven growth of Taiwan, IT companies driven growth of USA, manufacturing companies driven growth of China, Chaebol driven growth of South Korea, small scale sector companies driven growth of Bangladesh, Mexico and Vietnam and so on, these companies have provided employment, created wealth and played a major role in economic growth and social welfare. Breaking the administrative frontiers, these companies have played the same role in countries other than the country of their origin, provided employment and created wealth.

While Indian economy is vying for 3rd rank in the next five years from its current 5th rank, Indian companies are nowhere near the top ranks. The highest rank an Indian company holds in global ranking by market capitalisation is about 150th rank. In fact there are only three companies in top 100 companies by market capitalisation. India has largest number (5215) of companies listed on stock market, followed by USA (4266) but market capitalisation of about 2.5 trillion US\$ of Indian companies is a fraction of market capitalisation of 44.7 trillion US\$ of companies listed in USA. India ranks seventh² in terms stock market capitalisation but in terms of average market cap of companies listed on stock market, its rank is 47. Indian companies have a long way to go to realize the global ambition.

^{1.} The rank changes marginally by one or two steps up or down as per the daily share price movement

 $^{2. \} https://en.wikipedia.org/wiki/List_of_countries_by_stock_market_capitalization$

| Rank | Country | Total market capital (in mil. US\$) | Total market capital (% of GDP) | Number of domestic companies listed | Avg Capital per Domestic Company (in mi. US \$) | Rank on Avg Capital per Company |
|------|---------------|---|---------------------------------------|--|--|---------------------------------------|
| 1 | United States | 4,47,19,661 | 194.5 | 4,266 | 10483 | 3 |
| 2 | China | 1,32,14,311 | 83 | 4,154 | 3181 | 11 |
| 3 | Japan | 67,18,220 | 122.2 | 3,754 | 1790 | 22 |
| 4 | Hong Kong | 61,30,420 | 1768.8 | 2,353 | 2605 | 15 |
| 5 | UK | 35,70,894 | 116.5 | 1,858 | 1922 | 21 |
| 6 | Canada | 26,41,455 | 160.7 | 3,922 | 673 | 41 |
| 7 | India | 25,95,465 | 97.3 | 5,215 | 498 | 47 |
| 8 | Saudi Arabia | 24,29,102 | 347 | 207 | 11735 | 1 |
| 9 | France | 23,65,950 | 84.9 | 457 | 5177 | 6 |
| 10 | Germany | 22,84,109 | 60 | 438 | 5215 | 5 |

Indian Inc to think and act big to be global entrepreneur-

For India to realise its aspiration of a developed country, businesses will play a major role. India needs to create a considered agenda, ecosystem of policies, infrastructure and skilled manpower to create Indian multinationals in pre-identified sectors. There are examples of performance related government support with transparency for corporates for extending the global presence. Similar support can be thought of for companies beyond certain value for creating global value. On the other hand the India Inc need to invest in research and development of products and services of the future. They need to establish private research institutions of global excellence carrying out cutting edge research. On the strength of patented, innovative products and services, Indian companies should have a vision of investing in other countries instead of seeking investment from foreign companies. On the strength and experience of BPO and product development for foreign clients, Indian technological companies should become innovative product developers for global use and thus technology leaders. Specified Indian MNCs could be provided special support by Indian Embassies overseas to help them access the market and opportunities, understand the local culture and laws, resolve disputes.

Indian Multinational Trillion \$ Companies - Sectors for future - There exists vast literature on sectors those will drive growth of future. Some of these are mentioned here in from Indian perspective. This is an indicative list merely to meant to spark discussions about the possibility that these and other industries might potentially contribute a trillion dollars to India's GDP by the time the country celebrates its 100th anniversary of independence.

- Green energy including hydrogen India is a pioneer in solar energy and is contemporary in research advances in green hydrogen
- Pharma and vaccine India is one of the biggest exporters of pharma. Vaccine discovery and production during COIVID has established India as a force to reckon with
- Fintech and Banking UPI/BHIM/ e-rupee/NPCIL linked with Aadhar have established India as leader in digital transactions. UPI is now poised to provide international transactions to send and receive money from India. It is a matter of time and vision to make UPI a global platform for international transactions between two countries. The consolidation among the PSU banks has laid a foundation for an Indian bank to aspire for place among top ten banks in world.

- FMEG India is one the biggest and fastest growing market of consumer electronics. The sector is completely dominated by foreign multinationals. With focused approach, India has emerged a dominant net exporter of mobile phones in last few years. Similar effort and push by Indian companies with support from government of India is required for consumer electronic segment
- Retail Indian organized retail market is of the size of 690 bn US\$ growing at a CAGR of about 8% and it is poised to be biggest globally. However, Indian organized retail market is dominated by foreign giants, hence this calls for investment in retail segment by domesticcompanies to provide global standard services and products to the satisfaction of customer. ONDC platform established by government of India provides a platform to both large and small enterprise for B2B and B2C opportunities.
- Defence
- Semiconductor and telecommunication equipment
- SaaS and IT related
- Auto and Machinery
- Entertainment and AVGC Riding on one of the cheapest internet rates globally

Indian OTT market is fastest growing in world. With a digital video universe of about 420 million in 2022, it is second to China and is projected to reach 500 million by end 2023. Overseas OTT services, which possess more than 95% of these subscribers, reap the most benefits from this large audience. However, users prefer local material, with English making up only approximately 5% of the total. This scenario presents a huge opportunity for Indian players to increase their presence and capture the market share through quality offerings and presenting international content in local languages.

Similar is the opportunity in AVGC market of about 380 billion US\$ currently and expected to reach about 590 billion US\$ by 2030. India is the second largest user of AVGC but accounts only for 0.7% share of global revenue.

Non-Resident Indians for investment, knowledge transfer and growth

As per the estimates by UN, India has the largest diaspora in world. As of 2020, about 17.9 million international migrants are from India, which excludes persons of Indian origin. As per Ministry of External Affairs, annually about 2.5 million Indians migrate to other countries which is highest in world. In terms of wealth and education, Indian Americans significantly surpass native-born/ local Americans while making up only one percent of the total population.

Indians in the United States earn around \$130,000 per year or twice as much as their American counterparts. A comparable trend is developing in other nations, with the notable exception of the Gulf States.

Indians remitted back about 108 billion US \$ in 2022 which is highest globally and accounts for about 12-14% of global remittances and about 2.8% of Indian GDP. The remittances constitute about 12% of GSDP of Kerala. These remittances far exceed the FDI of about US\$ 84 bn during 2022, which by itself was the highest recorded FDI to date.

BRAIN GAIN - India should make efforts in skilling the people to access the global opportunities to be the global supplier of well-educated work force, technology leaders and global entrepreneurs. India should aim at a diaspora of about 100 million by 2047 remitting a trillion dollar back. These business-savvy and influential NRIs may network with locals and set up shop in India, bringing with them cutting-edge tools, procedures, protocols, global work ethics and standards, and valuable knowledge transfer in addition to their remittances. Therefore, there must be an ecosystem in place to help people take advantage of global possibilities. Similarly, a streamlined ecosystem is essential to effectively channel NRI remittances towards productive investments that generate new businesses, new jobs, and sustained economic growth in India.

Research, Innovation and Technology - Creating Leaders of Future

India need to grow in nominal terms at about 10% or more per year to realise its aspiration of being a globally leading economy. There are very few examples in global economic history where a country grew with this kind of CAGR for a period of 2 decades or more. These few example of economies that have maintained this level of CAGR on the basis of natural resources (like oil) or restructuring or on the basis of continuous research and innovation for developing the products and services which are hitherto unknown. Therefore it is essential that India invests a considerable share in research and development for creating technology and products of future. India here includes both the government as well as Indian companies investing in research and innovation. A rapid expansion of the economy is impossible without constant research and innovation that yields novel goods and services, defying the law of diminishing returns. Considering the importance and the potential of this sector, it is dealt separately in Chapter 3.

Facilitating Role of Government– New Age Institutions and Change Management

The term government here will include Government of India, the state governments and their entities. To successfully navigate the local, national, and global challenges emerging out of the India@2047 vision, India will need to have careful and forward-looking policy responses underpinning high-quality governance and regulatory institutions. To realize India's Vision of becoming a global economic leader the government must act as a coordinator, a facilitator, a regulator, and the driving force of the whole process.

Governance Related Actions - To develop a resilient economy, India will need stable governance that supports broad-based growth throughout society and strong macro-economic fundamentals. These would include:

- · Fair efficient and stable tax regime
- · Forward looking policy environment
- · Rule of law for ensuring implementation of business contracts and security of individuals
- Maintaining government effectiveness that ensures the quality of public services and the credibility and accountability of the government to implement sound economic and social policies;

- An appropriate degree of intellectual property rights and privacy rights protection which ensures individuals and businesses are rewarded for their innovations, stimulating technological progress and entrepreneurship;
- Effective environmental regulation which promotes sustainable and green economic growth;
- Globally competitive infrastructure like industrial corridors, ports, airports, fast speed road and rail network, digital infrastructure

New Age Institutions and Change Management - New set of technologies and new set of economic products and services will create demand for new set of standards, regulations, statutes and policies and consequently new set of government institutions managing these demands. Few examples are UIDAI for managing Aadhaar, national payment corporation of India limited for managing the Upi, the new data privacy bill, the social media regulations, and many more. These organizations, actions and statutes were unheard of a decade back. However, they are a reality and a necessity now. With technological advancement necessary for new institutions, new regulations, new statute and policy would come up to create a facilitating environment and to regulate the activities fully stock. Some of the areas that may require new institutions and regulations can possibly be Artificial Intelligence related, autonomous vehicles, Cyber security, Data protection and



Privacy, department facilitating rural entrepreneurs and producers to connect with e-commerce using ONDC etc.

With the advancement of technology, the response time for government institutions would be reduced as the expectation of people for near real time redressal of issues will go up. This will create the need for agile government, less government and more governance. Similarly the role of many existing departments of government will change like Police Department would have to equip itself for ever increasing and more complex white collar crimes and cyber-crimes. As the export of many products and services will increase, related government departments would have to create inhouse capacity for adherence to global quality standards. Employment exchanges should become skill and job facilitation centres; urban ministry may have urban re-development as major role; environment department may require competence for promoting and regulating circular economy.

Emerging Geo-political Role to further the principle of "Vasudhaiva Kutumbakam"- With india emerging as a developed economy, third largest globally by 2047, will have far-reaching consequences for global political and economic governance, as well as for relationships among countries and geographic regions. The United States, China, and India would form a new trifecta atop the global economic hierarchy. India has been playing the a significant role in geo-political arena. However, as India houses an exponentially larger share of people, capital, and technology, its share of global GDP will increase, shifting the economic balance of power towards it.

• Economy and Trade - The rising Indian middle class with disposable surplus income will convert Indian market as most attractive emerging market. In fact there are estimations that the demand of Indian middle class will be a hedge against a global slowdown in future. India can leverage its huge market demand in negotiating various trade agreements and can force the production processes to be more sustainable.

- Humanitarian An example of that is the free supply of more than 300 million COVID vaccines doses³ to more than 100 countries. Many Southern countries have recognised India as "Voice of South" for placing their concerns at G20 forum. India has also argued the principle that the pandemics and conflicts should exempt the fertilizers, food grain, and vaccines and medicines from various kind of trade embargo.
- Regional Power and Pacific With growing economic clout and military power, India plays a significant role in South Asia and South East Asia for strengthening the economy of the region and in addressing the strategic concerns. India has also emerged the important member of QUAD to maintain the balance of power in Pacific ocean.
- Climate Change and Renewable Energy India is in forefront of reducing the carbon footprint through voluntary declarations and following them to meet the targets. India is also in league of most advanced country as far as research on green hydrogen for energy. As a result, India has emerged as a role model amongst the developing economies. International Solar Alliance is one such platform for expansion of solar power in developing world in cost effective manner.

Furthermore, India will need new institutional mechanisms for understanding the implications of its emerging economic strength and its impact on geo-political power to further the concept of "Vasudhiva Kutubakam". India will need to engage from strength in the emerging geo-politic/ geo-economic situations and give rise to a new world order in terms of diplomacy, economy and strategic security regime not only to bolster its political and economic sovereignty but also to protect and consolidate its global economic and trade value chains. Its role in engaging and resolving issues of global commons such as global security, trade disputes, major economic crises and dealing with climate change, etc. will enhance requiring India to take a more proactive position in formulating policies and taking decisions in maintaining the cohesion of the international community.