



ECONOMIC NEWSLETTER

ISSUE 117
SEPTEMBER 2023

BJP KARNATAKA ECONOMIC CELL INITIATIVE

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CONTENTS

Pg 1-4
G20 Wrap Up
Bharat All The Way

Pg 5
Mann Ki Baat / Editorial

Pg 6-8
PM Modi Emerging as a
Global Leader at G20

Pg 9-10
G-20: What does it mean for
Indian Economy on the road to
10 Tr \$ Economy

Pg 11-14
Pt. Deendayal Upadhyaya
- The intellectual who
Foresaw the Future

Pg 15-18
Tribute to
Prof. MS Swaminathan

QUOTE OF THE MONTH

“ **India made
G20 a
People-driven
National Movement** ”

~ PM Narendra Modi
Addressing the
G20 University Connect Programme

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G20 WRAP UP BHARAT ALL THE WAY!



Editorial Note

This wrap-up of G20 has intentionally been given in a bullet point format, for ease of reference and absorption. We strongly recommend the reader to go through the G20 declaration in its entirety, which showcases the hard work that has gone behind making this event a truly historic one.

https://www.g20.org/content/dam/gtwenty/gtwenty_new/document/G20-New-Delhi-Leaders-Declaration.pdf

G20 ORIGIN & EVOLUTION

The 1st G20 Leadership Summit, also recognised as the "Summit on Financial Markets and the World Economy", was held in Washington DC in November 2008.

- G20 is a premier forum for international economic co-operation.
- Intended to solve critical global crises, after the 1994 Mexican peso crisis and the 1999 Asian financial crisis.
- Supported by several international organisations that provide policy advice namely The Financial Stability Board (FSB), IMF, WB, OECD, ILO, UN & WTO.
- Founded on 26 Sept 1999, during that G7 meeting and in Dec, 1999 - Inaugural meeting of the group in Berlin, Germany.
- The Group of G20 comprises Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, United Kingdom, and the United States along with the European Union.

G20 SUMMIT

भारत 2023 INDIA

NEW DELHI, INDIA | 9-10 SEPTEMBER | 2023



- Currently account for more than 80% of world GDP, 75% of global trade & 60% of the global population.
 - The G20 has no permanent leader, and instead, each year a country is chosen to take on the presidency of the forum.
 - The agenda and work of the G20 are carried out through three distinct tracks –
 - **Sherpa track** (political engagement, energy, development, anti-corruption, etc.,)
 - **Finance track** (focuses on monetary and fiscal issues, financial regulations, etc.,)
 - **Engagement groups** [business (B20), civil society (C20), labour (L20), think tanks (T20) and youth (Y20)].
 - Focuses largely on broad macroeconomic policy and addresses issues on trade, climate change, sustainable development, energy, environment, climate change, anti-corruption etc.
- G20 INDIA - VASUDHAIVA KUTUMBAKAM ONE EARTH. ONE FAMILY. ONE FUTURE**
- A 28 feet tall Nataraja statue at the entry point of Bharat Mandapam is testament to India's purity and brilliance (28 nations).
 - Konark Surya Temple's Chakra – progress based on dharma – roots & science – eg., Solar Alliance
 - The Mandapam also presented a 'Culture Corridor' that brings the best & most valuable artefacts' from all 29 countries in one space signifying the essence of **Vasudhaiva Kutumbakam - the theme of G20.**
 - India's Presidency of G20 will go down in history as one of the **most inclusive.**
 - **STATISTICS** - 220+ meetings, in 60 Cities with 25,000+ delegates from more than 115 countries across the world.
 - With 112 outcomes and presidency documents, Bharat has more than doubled the substantive work from previous presidencies.
 - 73 outcomes (lines of effort) and 39 annexed documents (presidency documents, not including Working Group outcome documents).



- Inclusion of the 'African Union' is an example of India's message of 'Vasudhaiva Kutumbakam'



- Consensus statement – amazing achievement that speaks of India as a well-respected country
- **Bharat's specific interventions:**
 - Deccan High-Level Principles on Food Security and Nutrition - **Push for millets, Global Agro info sharing to avoid food price volatility.**
 - Chennai High-Level Principles for Blue/Ocean Economy - **International co-ordination to solve maritime challenges & enhance ocean finance.**
 - Goa Roadmap for Tourism - **Push for global sustainable tourism to align nation's tourism policies with the SDG 2030. Prioritizes Green Tourism, Digitalization, Skills, Tourism Destination Management and MSMEs.**
 - Gandhinagar Implementation Roadmap for land restoration - **Restoration of landscapes of forest fire & mining affected areas.**
 - Jaipur Call for Action to enhance MSMEs access to information - **Address the challenge of inadequate access to market and business-related information faced by MSMEs.**
 - India projected itself as voice of Global South with inclusion of African Union (AU) as a permanent member of G20 - **This inclusion of union with 55 member countries, will help meet aspirations of 1.43 billion people living in one of world's most underdeveloped regions.**

OUTCOME OF THIS SUMMIT?

- Bharat emerges as a **new power** in a multipolar world (US / EU / China etc.,).
- Bharat bats for '**new world order**' – International governance as well as institutions like IMF & WB

being reformed.

- Bharat acts as **voice of Global South** – inclusion of African Union into G20 (now G21).
- Bharat gets a consensus on the summit declaration – unthinkable achievement indeed!
- Bharat's vision – Vasudhaiva Kutumbakam – One Earth, One Family – One Future – gets a massive thumbs up - **For the Planet, People, Peace and Prosperity (4P).**
- Culture as a Transformative Driver of SDGs - post 2030 to become an independent goal – huge focus on culture across the world, when culture is losing its primacy.

FOCUS AREAS OF NEW DELHI G20 DECLARATION

- Strong, Sustainable, Balanced, and Inclusive Growth.
- Accelerating Progress on SDGs.
- Green Development Pact for a Sustainable Future.
- Multilateral Institutions for the 21st Century.
- Reinvigorating Multilateralism.

SUMMARY OF THE SESSIONS

- **Session 1 "One Earth":** World economy, food security, climate & energy & environment.
- **Session 2 "One Family":** Inclusive growth, SDGs, health, reducing poverty & inequality & preparing for pandemic.
- **Session 3 "One Future":** Multilateral reforms, digital & related issues.

PM MODI'S CALL TO WORLD – SHOWCASING PERFORMANCE *via* EOL

- Adoption of principles of LiFE (*Lifestyle For Environment*).
- Using technology for governance – *Digital India Stack*.
- Access to quality healthcare equitably – *Ayushman Bharat*.
- Promotion of Millets ensuring food security – *Siri Anna*.
- Increased inclusive participation in the labor force – *e-shram*.
- Women empowerment – *Beti Bachao Beto Padhao*
Culture as a Transformative Driver of SDGs – post 2030 to become an independent goal.

BHARAT'S GEOPOLITICAL GAINS

- Lots of countries bat for Bharat being a permanent member of UN Security Council.
- PM Modi announced the launch of Global Biofuel Alliance to boost the use of cleaner fuels (like Solar alliance – Bharat's leadership indeed).
- **Comprehensive rail and shipping connectivity network** announced linking US, India, Saudi Arabia & Gulf and Arab states, and European Union (vs BRI of China, which was a debt trap diplomacy indeed) – ISOLATION of China!
- Declaration – “Today's era must not be of war” – PM Modi had said these words earlier to President Putin on Ukraine war. This found its place in the G20 declaration.
- Start-up 20 engagement group formally announced.

MULTILATERAL INSTITUTIONS FOR THE 21ST CENTURY

- G20 event helped in showcasing India's ambition of achieving goals that were once thought impossible. Following frameworks evolved.
 - MDB reforms: Strengthen, Evolve, Raise ambition of MDBs; Expert Group Report (Vol-I).
 - Crypto Assets Roadmap; IMF-FSB Synthesis Paper.
 - G20 commitment to Common Framework for Debt Treatment beyond DSSI.
 - IMF quota review (December 2023).

- Multilateral reform – UNGA 75/1 (UNSC) ref.
- Condemning and countering terrorism.

KEY ACHIEVEMENTS

- Consensus on Ukraine war – **Delhi Declaration has been adopted with China & Russia in agreement. It called on nations to uphold international law, including territorial integrity that safeguards peace & stability.**
- Green development pact for a sustainable future- Clean energy technology transfer, access to low-cost financing to developing countries, **Global Biofuel Alliance (accelerate global efforts to meet net zero emissions targets)**, collaborate for critical materials
- Comprehensive rail and shipping connectivity network linking US, India, Saudi Arabia & Gulf and Arab states, and European Union.
- Multilateral Institutions for 21st Century- **Restructuring of multilateral institutions (IMF, World Bank) to ensure level playing field, reforms for better Multilateral Development Banks (MDBs) to mobilise investments in developing countries and promote EoDB, regulations on cryptocurrencies, Debt relief for poor countries.**
- Gender Equality & Empowering All Women – **Push for inclusive participation of girls in education sector and women in the workforce.**
- Technological Transformation & Digital Public Infrastructure – **Technology access improved transparency ensuring welfare reaching the last mile beneficiary. JanDhan improved financial inclusion & UPI resulted from DPI enhanced EoDB.**

In Summary,

The G20 event in India, showcased India's resilience and also her path for development whilst simultaneously ensuring welfare of citizens equitably at speed & Scale., i.e. Ease of Living, Jal Jeevan Mission, Swachh Bharat Mission, Ujala, Ujwala, Ayushman Bharat, Ease of doing business, Jan Dhan, UPI, Svanidhi etc. Bharat walked the talk when PM Modi asked for the world to work as one family – he has shown how to do that in the last 9 years of governance.

India's G20 Presidency is being vouched as the one of most successful presidencies that the world has ever seen and rightfully so!

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Mann Ki Baat



24
Sep 2023

105th Edition

These days, most of the letters & messages I received are largely on two subjects. The first is the successful landing of Chandrayaan-3 and the second topic is the successful hosting of G20 in Delhi.

More than 80 lakh people watched this incident on ISRO's YouTube Live Channel, a record in itself, conveying how deeply attached are crores of Indians to Chandrayaan-3. The grand hosting of G20 doubled the joy of every Indian. Bharat Mandapam has turned out to be a celebrity in itself. People are taking selfies with it and also posting them with pride. In this summit, India has proved the mettle of her leadership by making African Union a full member of G20. During the time

when India was very prosperous, the Silk Route was a part of discourse in our country and in the world. This Silk Route was a major medium of business and trade. Now in modern times, India has suggested another Economic Corridor in G20. This is the India-Middle East-Europe Economic Corridor. This corridor is going to become the basis of world trade for hundreds of years to come, and history will always remember that this corridor was initiated on Indian soil.

My family members, the festive season has also commenced in our country. All of you might also be planning to buy something new in the household. One would be waiting to start an auspicious work or two during Navratri. In this atmosphere of fervour and enthusiasm, you must also remember the mantra of Vocal for Local. As far as possible, you should buy goods made in India, use Indian products and gift only Made in India goods. Your little joy will become the cause of immense happiness for someone else's family. Whatever Indian goods you buy, our labourers, workers, craftspersons & other Vishwakarma brothers and sisters will directly benefit from it.

EDITORIAL

PM MODI TAKING A BIGGER STEP TOWARDS MAKING BHARAT VISHWAGURU

It is indeed a historic event of an unimaginable scale that culminated in the New Delhi G20 declaration that was adopted with full consensus to the biggest astonishment of the whole world. With over 200 meetings in over 60 cities across the length and breadth of the country the G20 delegates numbering over 100,000 from dozens of countries across the globe had the opportunity to see for themselves the richness and the beauty of Bharat.

It was not just the physical beauty as seen in diverse geographical richness of our country that was at display but the immense & inherent strength of India as a nation which has arrived at the global level that was the highlight of the event. The G20 presidency of India comes in the backdrop of a massive humanitarian crisis rising from the Covid pandemic, huge economic turmoil as well as the disruption of international peace & supply chain due to the Ukraine war. Many countries are at loggerheads with each other over economic, trade & strategic issues. The same countries under India's G20 presidency, came together with absolute consensus to sign the New Delhi G20 declaration.

The cultural richness was shown from the moment the guests landed on the Indian soil. The venue Bharat mandapam was aptly named to showcase the strength, beauty and capability of Bharat. It was not just the overall cultural glitz that was very nicely & pleasantly received by the guests but Big vision that India put across to the whole world as the only way ahead for the

world to survive and also thrive.

Vasudhaiva Kutumbakam meaning 'one earth one family' therefore sharing one future found resonance amongst all the countries with no exception. The civilization wisdom of Bharat is showing the way ahead for the whole world in times of volatility, uncertainty, complexity and ambiguity. It is no wonder the Prime Minister Modi has strongly batted for including culture as an important goal to be pursued by all the countries as a part of SDG when it comes up for review in the year 2030. And we should be equally proud that the G20 declaration as formally accepted and meet this an important aspect of the vision.

Top leaders of the world touching down on Bharat soil to join hands for creating and strengthening a better world could be made possible only under India's presidency was the view of most of the delegates who were part of the discussions. It is no wonder that strong commitment and capability rolled together in Prime Minister Modi has made this dream of Bharat moving towards the Param Vaibhavam status has come closer to reality. It is time that the country whole heartedly acknowledge, appreciate and adopt this vision of Prime Minister Modi to make the world a better place to live with Bharat as Vishwaguru.

श्रीवत्सल शर्मा

PM MODI EMERGING AS A GLOBAL LEADER AT G20



G20 which was yearlong summit in 60 Cities, 28 States, 8 Union Territories, 220 plus meetings, how could Bharat achieve this success under the leadership of PM Narendra Modi? Was it the perfect co-ordination between various departments or the leadership that matters? I say, leadership, vision, mission, co-ordination & final goal that matters.

The right mixture of these qualities led to a successful G20 Summit in India. Leadership matters.

The G20 Summit 2023 in New Delhi was a historic event that showcased India's role as a global leader and a bridge to the Global South. Prime Minister Narendra Modi hosted the summit and met with many world leaders to discuss various issues of global importance. Here are some of the highlights of the summit and PM Modi's achievements:

- PM Modi handed over the G20 Presidency to Brazil's President Lula da Silva, marking the end of the summit. He also passed the G20 Presidency gavel to him.
- PM Modi topped the global ratings among world leaders with an approval rating of 76%, according to a survey by Morning Consult. The survey attributed his

popularity to his successful hosting of the G20 Summit and his diplomatic outreach.

- PM Modi met 85 world leaders in the past month, representing nearly half of the world's leaders. He highlighted the opportunities & access to new markets that arise when countries collaborate with India.
- PM Modi launched the India-Middle East-Europe Economic Corridor, a mega infrastructure project that will connect India with Europe through the Middle East . He also invited the G20 leaders to invest in solar projects under the corridor.
- PM Modi led the Global Bio-fuel Alliance, an initiative to promote bio-fuels as a clean and sustainable source of energy. He also announced that India will host the first International Solar Alliance Summit in 2024.

- PM Modi held bilateral meetings with several leaders, including US President Joe Biden, German Chancellor Olaf Scholz, EU Commission President Ursula von der Leyen, and South Korean President Yoon Suk Yeol. He discussed ways to deepen co-operation in trade, defence, technology, climate change & education etc.
- PM Modi played host to G20 leaders and delegation heads at Rajghat, New Delhi, where they offered floral tributes to Mahatma Gandhi. He also hosted a cultural program at the Rashtrapati Bhavan, where he showcased India's rich and diverse heritage.
- PM Modi introduced African Unions to G20. At one single stroke, 55 member states was granted full membership in G20 India summit. With this, African Unions get stronger voice and role in addressing global issues such as climate change, trade, health, and development.

India was credited with making the entire conference a complete success by unanimously adopting the Delhi Declaration. Everyone, including Russia and China, supported the resolution and praised India's efforts.

The G-20 Summit was organized on the meaningful message of 'Vasudaiva Kutumbakam' 'One Earth – One Family – One Future' as the slogan of the G20 Summit. The 2-day meeting under the leadership of Modi was immaculately organized without any blunders or inadvertences. He showcased the true Indian culture to the foreign dignitaries and raised the country's respect.

ROAD MAP OF MODI AS A GLOBAL LEADER

Did Modi emerge as a Global Leader only after G20 India Summit. I don't think so. Over 9 years as PM, the initiatives taken by him and the way he has handled the various complex situations, within & outside the country has chiselled him to emerge as Global Leader.

PM Modi is widely regarded as a global leader who has enhanced India's stature and influence in the world. He has been praised for his vision, leadership, and diplomacy by many world leaders and media outlets. Some of the reasons why PM Modi is seen as a global leader are:

- In 2014, Modi led the BJP to a historic victory in the Lok Sabha elections, becoming the Prime Minister of India with a clear majority. He was praised for his pro-business policies and focus on economic development, which resonated with Indians & foreign investors.
- In 2015, Modi was ranked among the top 10 most powerful people in the world by Forbes magazine. He was also named as one of the Time magazine's 100 most influential people in the world.
- In 2016, Modi received the highest civilian honor from

Saudi Arabia & Afghanistan, and was awarded the Champions of the Earth award by the United Nations for his leadership on environmental issues.

- In 2017, Modi became the first Indian Prime Minister to address a joint session of the US Congress, where he received a standing ovation from the lawmakers. He also hosted several world leaders in India, including US President Donald Trump, Japanese PM Shinzo Abe, and Israeli PM Benjamin Netanyahu.
- In 2018, Modi was conferred the Seoul Peace Prize for his contribution to international cooperation and fostering global economic growth. He also launched the International Solar Alliance, a global initiative to promote renewable energy.
- In 2019, Modi won a second term as Prime Minister with an even bigger mandate than in 2014. He was hailed as a global hero of ground zero by BJP leader Mukhtar Abbas Naqvi for depreciating dynastic dominance through decisive delivery & development. He attended several high-profile summits & events, such as the G7 summit in France, the Howdy Modi event in Texas & UN General Assembly in New York.
- In 2020, Modi was ranked as the Most Popular Global Leader with a solid approval rating of 76% by Morning Consult, a US-based research firm. He also led India's response to the Covid-19 pandemic, which was praised by experts & leaders for its timely & effective measures.
- In 2021, Modi continued to engage with various world leaders & forums, such as the QUAD Summit, the BRICS Summit & COP26 Summit. He also announced several initiatives & reforms to boost India's economy & social welfare, such as the PM Gati Shakti National Master Plan, the PM Awas Yojana (Urban) & PM Ayushman Bharat Health Infrastructure Mission.



- He hosted & attended several international summits & forums, such as the G20 Summit, the BRICS Summit, the Quad Summit, the UN General Assembly & COP26 Conference. He used the platforms to articulate India's views & interests on global issues such as terrorism, climate change, trade, development & health.
- He has forged strong and strategic partnerships with key countries and regions, such as the US, the EU,

Japan, Australia, Russia, China, and the Middle East. He has also expanded India's outreach to new partners, such as Africa, Latin America, and the Pacific Islands. He has enhanced cooperation in areas like defence, security, energy, technology, education & culture.

- He has championed several global initiatives & projects that showcase India's leadership and innovation. For example, he launched the International Solar Alliance, a coalition of 121 countries to promote solar energy. He also initiated the Coalition for Disaster Resilient Infrastructure, a platform to help countries build resilient infrastructure against natural disasters. He also spearheaded the India-Middle East-Europe Economic Corridor, a mega infra project that will connect India with Europe through the Middle East.
- He has demonstrated his commitment to global peace & stability by supporting multilateralism and reforming global institutions. He has advocated for a reformed UN Security Council that reflects the realities of the 21st century. He has also supported the reform of WTO & WHO to make them more inclusive & effective.
- He has shown his compassion and generosity by providing humanitarian assistance and development aid to many countries in need. He has also shared India's expertise and resources in fighting the Covid-19 pandemic by supplying vaccines, medicines, and equipment to over 150 countries. He has also pledged to donate 5 billion doses of Covid-19 vaccines to low- and middle-income countries by 2024.

GLOBAL LEADER THROUGH GLOBAL PEACE

Modi played a role in stopping the war briefly between Ukraine and Russia by speaking to the leaders of both countries and urging them to cease the violence and engage in dialogue.

- On February 25, 2022, Modi spoke with Putin after Russia attacked Ukraine, and called for the "immediate cessation of violence". He also stressed that India attaches the "highest priority" to the safe exit and return of its citizens from Ukraine.
- On March 2, 2022, Modi spoke with Putin again on the sidelines of a regional summit in Uzbekistan, and told him that "today's era is not an era of war". He also suggested that Putin should have a direct conversation with the Ukrainian president to resolve the crisis.
- On March 7, 2022, Modi spoke with both Putin and Ukrainian President Volodymyr Zelensky on the phone, and expressed his solidarity with the people of Ukraine. He also offered humanitarian assistance to Ukraine, and said that India is ready to evacuate its citizens stranded in the war zone.
- On Nov 28, 2022, Modi attended a virtual meeting of

the BRICS (Brazil, Russia, India, China & South Africa) leaders, where he called for a peaceful resolution of the Ukraine crisis through dialogue and diplomacy. He also said that BRICS should play a constructive role in addressing global challenges.

INDIA AS EMERGING GLOBAL POWER UNDER THE LEADERSHIP OF MODI

India is a large and diverse country with a population of over 1.4 billion people. It has a rich and ancient history, culture, and civilization. India is also a fast-growing and dynamic economy, with a strong potential to become a global superpower in the future.

- India has overtaken the UK as the world's 5th largest economy, and is expected to surpass Germany and Japan to become the third-largest by 2030. India is also on track to become the fastest-growing economy in the world, with an estimated growth rate of 7% this year.
 - India has a young and skilled workforce, with a median age of 28 years. India is also a powerhouse of technology and innovation, with a vibrant Start-up ecosystem and a large pool of engineers and scientists. India is home to some of the world's leading companies, such as Reliance Industries, Tata Group, Infosys, Wipro & Flipkart.
 - India has a strong and stable democracy, with a robust constitutional system and an independent judiciary. India is also a secular and pluralistic society, with respect for diversity and tolerance. India has a vibrant civil society and media, which play an important role in holding the government accountable and promoting social justice.
 - India has a strategic and influential role in global affairs, with strong relations with major powers such as the US, Russia, Japan, France, and Australia. India is also a key partner in regional and multilateral forums, such as the Quad, BRICS, G20, SAARC, ASEAN, and the UN. India is also a responsible global citizen, contributing to peacekeeping, humanitarian aid, climate action, and vaccine diplomacy.
 - India has a proud and patriotic spirit, with a sense of national pride and unity. India also has a rich and diverse cultural heritage, with a variety of languages, religions, arts, music, literature, and cuisine. India is also known for its soft power, with its popular culture, through movies, yoga, cricket, and cuisine.
- India is certainly emerging as a superpower under Modi's leadership & has taken the message of 'Vasudhaiva Kutumbakam' 'One Earth – One Family – One Future', globally.

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G20 - WHAT DOES IT MEAN FOR INDIAN ECONOMY ON THE ROAD TO 10 TR \$ ECONOMY



भारत 2023 INDIA

THE MACRO STORY

India's economy is of global importance. It has a large and young population and an open and democratic political system. It is already the 3rd Largest Economy and contributor to global economic growth, yet there is considerable untapped potential. With more than a 6th of the world's population, India produces only 7% of the world's output.

India's success will have significant implications for its international economic and strategic weight. In 2035, the global economy is likely to be increasingly weighted towards Asia, as India, China and the ASEAN economies catch up to slower-growing advanced economies. Even with an average annual growth rate of only 6%, India's economy would be more than two times larger than it was in 2017. In PPP terms, India's share of the global economy will likely increase from 7% in 2016 to around 13% making it one of the major poles of global economic power and on par with the United States.

THE G20 PRESIDENCY & ITS POSITIVE LONG TERM IMPACT

2023 is a momentous year for India. The G20 presidency, of course, serves as a diplomatic exercise to reinforce relations with old partners, explore new ones, and enhance the incumbent nation's image and might on the global stage. It also presents an opportunity for India to represent the developing world on the global stage and fulfill its domestic aspirations while doing so.

In a period of unparalleled multi-dimensional crises, India has proven itself to be resilient. While the world faced recessionary conditions and uncertainty, India has marched ahead on its strong growth path, bringing benefits to many through new strategies.

The G20 presidency gives India the opportunity to share success stories with the world and at the same time to bring global businesses to India at a time when they are looking to diversify investment destinations.

The IMF's latest projections highlight that emerging markets and developing economies are expected to contribute around 80% of global growth, with India accounting for more than 15%. Having recently become



the world's 5th largest economy, India is also the only large economy predicted to grow at over 6% in coming years. Therefore, this year presents a huge responsibility for it to be a voice for the Global South in its agenda and leverage the G20 platform as a catalyst for global and domestic change.

The Indian government has been providing the right policy climate over the past few years to help the country steer through various crises, allowing for domestic capacity building and providing a necessary push to further propel India on the path of economic growth. This includes building the right environment for attracting foreign direct investment, engaging in deeper and freer trade and global value chain integration, improving infrastructure (including digital) and a series of reforms in the banking and rapidly growing renewable energy sectors. Promoting indigenous entrepreneurship is another factor – India's home-grown entrepreneurs and businesses and a large middle-class population give it a competitive edge over other big nations.

All of these are in perfect place to complement and support this year's G20 priorities. The presidency aims to make tackling shared issues like climate change, economic vulnerabilities, reform of multi-lateralism, lack of access to finance for many sections of society, and the task of embracing sustainability and green transition more approachable through collective efforts. Through the establishment of close partnerships amongst the 20 nations, 9 guest countries, and various international organizations, India can mirror its people-centric approach on a global scale.

There are some definite ways in which India's economy can be boosted through the G20 process. The first is international trade - the ripple effects of increasing protectionism, disrupted supply chains, and food and fuel shortages because of the Ukraine-Russia conflict can be moderated through a fair, transparent, and rules-based trading system. The Trade and Investment

Working Group of G20 has been engaged in promoting resilient trade, enhancing MSME participation in trade and expanding logistics, among other issues.

Second, international collaboration and sharing of best practices in technology could help India build innovation. The G20 deliberations on a range of occasions through the year will help India showcase its technology prowess and initiate new partnerships.

Third, the inclusion of MSMEs in deliberations through the various arms of the G20 will play a significant role in opening new opportunities for them, especially through partnerships in medium-income countries.

Fourth, hosting G20 is helping to promote tourism in the country as well.

The government has strategized to organize the various meetings in different parts of the country and many associated events are showcasing India's culture and heritage sites. Promoting these venues through communication outreach is helping the world learn about India's attractions.

Further, directly engaging with global businesses can act as a catalyst for new investments. Alongside the G20 meetings, leading businesses of the world are undertaking dialogues on the B20 platform, the Business Engagement Group of G20, which is the largest among all its engagement groups. During the year, B20 India is organizing over 100 policy discussion initiatives across the country which are attracting notable participation from overseas. For example, a series of events in North East India is bringing B20 businesses to explore new opportunities in this resurgent region.

Through seven task forces under B20, global businesses as well as think tanks and international organizations are working on building inclusive global value chains for resilient global trade and investment; the future of work, skilling, and mobility; energy, climate change & resource efficiency; digital transformation; financing for global economic recovery; technology, innovation, and research and development; and financial inclusion for economic empowerment. Further, two action councils are focusing on environment, sustainability, governance (ESG) in business and a collective dialogue on African economic integration.

As the G20 countries engage intensively with India during this year, India's economy is expected to receive a significant thrust that will enable many new jobs and investment proposals.

According to UNCTAD, the digital economy's prime value lies in the creation of new economic opportunities for the masses by facilitating transactions and networking. Post pandemic world economy will be particularly dependent on digitization of value

chains and India's digital trajectory places it at a favorable position in shifting global supply chains. In the current decade India will benefit from major global investments going into the technology domain. These technologies have the potential to create millions of well-paying, productive jobs and help millions of Indians to enjoy a decent standard of living. As the per capita incomes grow with the GDP, it will cross the \$3000+ threshold, which is seen as a consumption inflexion point.

India has emerged as the 3rd largest start-up ecosystem in the world with more than 84,400 such businesses operating across 656 districts in the country. Entrepreneurs boost economic growth by introducing innovative technologies, products & services. The ecosystem has the potential to unlock tremendous appetite for scalability, alternate funding options, expansion into the global market and the capacity to enable millions of jobs. The Government with an intent to build a strong ecosystem for nurturing innovation and startups in the country launched Startup India initiative in 2016.

Pro-active policy stance from the government allowed India to gain 'first & fast mover' advantage in many of the emerging technologies and sectors. A Bloomberg report recently predicted that hydrogen could meet up to 24% of the world's energy needs by 2050, creating a market worth \$600 billion. The National Hydrogen Mission setup by the Modi Government is expected to incentivise various approaches which can help India become a sizeable player in green energy.

India is expected to get a structural push to manufacturing coming from the corporate sector's strategy of diversifying the supply chain and not depend on a single country. The government has introduced PLI schemes to kick-start Indian manufacturing in over 14 sectors. Further, investment in infra development through National Infrastructure Pipeline will help reduce logistics cost and improve India's competitiveness. The recent FTA agreements with Australia, UAE will help expand the markets even as India partners with like minded countries in forums like I2U2.

To move up the value stack and become a large manufacturing base, India is investing in its human resource especially in times of changing needs and environments. It is also ensuring that the external environment is conducive for its growth and its economy is cushioned as much as possible from external shocks such as the recent pandemic and geopolitical conflict. **As India took up G20 Presidency, it offered a great opportunity to showcase its strength to the world and further the momentum towards the goal of a 10 Trillion \$Economy during Amrit Kaal.**

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Pt. DEENDAYAL UPADHYAYA

THE INTELLECTUAL WHO FORESAW THE FUTURE



The founding president of the Bharatiya Jana Sangh Dr. Syama Prasad Mookerjee once said: "Give me two Deendayals, I will change this country." Fast forward to May 2014, on accepting his election as leader of the BJP parliamentary party, Shri Narendra Modi spoke in the Central Hall of the Parliament invoking Upadhyaya ji: "ANTYODAYA, service of the downtrodden, was Pandit Deendayal Upadhyaya ji's mission. That is why I say our government is for the poor and deprived. The coming year will be his centenary year. We must strive to fulfil his dreams." It was his first decision even before he became the Prime Minister.

In its 9 years of rule, PM Modi led BJP govt has passionately embraced Upadhyaya ji's philosophy of 'Integral Humanism' and 'Antyodaya', ensuring that its welfare schemes reach every needy without any discrimination, ruling out any appeasement and selfish interest.

ANTYODAYA IS SARVODAYA

A philosopher, statesman, intellectual & organiser par excellence, Pt. Deendayal Upadhyaya was convinced that the eradication of poverty and illiteracy was a prerequisite for qualitative progress in the nation. Antyodaya, the lasting legacy of Pandit Deendayal

Upadhyaya is the philosophy of Integral humanism, which means "uplifting the last person" or "the rise of the last person". He put forward the concept of Antyodaya in the mid-1960s as an organic and integral approach to social inclusion that stands for identifying the last person in the socio-economic pyramid for the purpose of inclusive growth & sustainable development, emphasizing on economic and political aspects of poverty. Accordingly, an economic system suited to the requirements of such concepts must be constituted with the objective of securing the minimum needs of the people on one hand, and safeguarding the integrity of the nation, on the other.

Pandit ji conceptualized a 3-pronged scheme with respect to a holistic effort towards poverty eradication:

- Antyodaya - (the rise of the last person in the queue);
- Har haath ko kaam, har khet ko paani - (work for every hand, water for every field)
- Charaiveti, charaiveti (move on, move on).

THE OTHER MAIN ELEMENTS OF DOCTRINE OF INTEGRAL HUMANISM

- On philosophical front, Pt. Deendayal Upadhyaya is best remembered for his principle of 'Integral



humanism', which has been defined as 'a classless, casteless and conflict-free social order' and its contemporary relevance. The philosophy considered that it was of utmost important for India to develop an indigenous economic model with the human being at center-stage.

- Therefore his reflection on how to rescue the nation of extreme poverty lies in his indigenous worldview. Instead of capitalism or socialism – which has its own inherent shortcomings – Pandit ji stressed the need for adopting Swadeshi economic policies based on our cultural, civilizational, nationalist values and ethos to make India strong, vibrant and self-reliant. That is called *Ekatma Maanavavaad*. It is suited to the Indian model of economy.
- Only those economic & political policies can change the fortune of India that is tied to the roots of the nation; No country has been able to progress while being detached from its roots.
- In his economic vision, Pandit ji confers prominence to seven 'M's: Man, Material, Money, Management, Motive Power, Market & Machine, that constitute the comprehensive framework of an economy enabling it to serve people's needs in a self-reliant manner. Given the fact that India is sufficiently endowed with all of the seven elements, the country's economic system has the ability to meet the basic requirements of all its citizens without causing any harm or dislocation to human

ecology. Therefore Swadeshi and decentralisation approaches lie at the core of Deendayal ji's economic system.

- Pandit ji believed that the economic model of the nation must be bottom-up, not top-down; the poor and welfare should be at the centre of all policies of the govt, and only then the country would truly grow.
- Deendayal ji speaks for building a safety net into our policies for the underprivileged or the disabled while simultaneously rewarding the meritorious or gifted, in order to foreclose the usual clash between the politically empowered poor majority and the economically empowered rich minority in a democratic system. In such an inclusive scheme, each and every person, especially the least advantageous one, receives systemic attention for development. Pandit ji wanted to rebuild such a society that would see no disaffection or discrimination, and where nobody would even think of exploitation; -this is what patriotism is; Modi govt is trying to realize this ideal.
- Pandit ji emphasized capacity-building; He used to say that our defence forces must be competent and only then the nation can be powerful.
- Adhering to the principle of Nation First, Pandit ji propagated and practiced the politics of probity, inclusion and appeasement of none.
- Pandit ji advocated 7 ideals - Harmony, Diligence, Equality, Prosperity, Knowledge, Happiness & Peace. At its core, his ideology prioritized the well-being and contentment of every common citizen as the ultimate aim of economic development. Modi govt's endeavour is to make India confluence of these seven streams, so that India attains the pinnacle of glory.
- Pandit ji was not against adopting innovations taking place globally but wanted to manufacture the things of our needs here in India itself so that our dependence on other countries remains minimal. AatmaNirbhar Bharat is the 21st century face of this economic model.
- In today's context, the values emanating from integral humanism have become indispensable in societal life.
- Deendayal ji aptly says: "With the support of universal knowledge and our heritage, we shall create a Bharat which will excel all its past glories.

BJP AND INTEGRAL HUMANISM

Pandit Deendayal ji's Integral Humanism was adopted by the Jan Sangh in 1965. It became the party's basic philosophy, as per the BJP constitution. Antyodaya, one of the core principles of integral humanism, is the driving forces behind the ethos of the BJP.

Ensuring the welfare of common man Late PM Atal Bihari Vajpayee ji launched the "Antyodaya Anna

Scheme" to provide cheaper subsidized food grains to the poor expressing his commitment to Antyodaya policy. PM Narendra Modi has established numerous research institutions in Pandit Deendayal Upadhyaya ji's name, aiming to propagate his visionary ideas.



NARENDRA MODI LED BJP GOVT IS STRIVING TO ATTAIN AN INDIA FREE OF POVERTY

In 2014, after being elected as a Prime Minister of India, Narendra Modi made "Integral Humanism philosophy a base for all his government initiatives. For the first time, India has implemented its own socio-economic development model called Integral Humanism. For 67 years, during Congress regime the country was running on the borrowed development models, didn't implement even Gandhiji's 'Hind Swaraj.'" After 9 years of experimenting with this philosophy, now its results are becoming visible in every sector of the economy. At present, in an ocean of high economic turbulence and uncertainty, the Indian economy is an island of macroeconomic and financial stability. From GDP contraction of (-) 6.7% in 2020-21 India has once again reached highest growth rate in the world of 8.7% in 2021-22 and 7.2% in 2022-23!! The last 9 years of Modi government have sustained one of the key elements of Pt. Deendayal Upadhyaya's philosophy which says "The development, upliftment, and progress need not be a case of one against the other, but it can include everyone."

From taking education to the streets to utilising innovations for better agricultural output, from providing livelihoods to aloof tribes to reviving the long lost traditional arts of India, from striving to provide medical conveniences to the underserved to transforming the villages into sustainable green village, there is no end to the stories of such heroic efforts. Many of these stories have not been heard though their impact has been immense. These Antyodaya workers are not working for popularity or

recognition, as their basic aim is to contribute to society and upliftment of their brethren.

IN ANTYODAYA MODEL, NO ONE IS LEFT BEHIND

Failing to look beyond the western binaries of socialism and neoliberalism and examining the BJP's rich ideological history, leftists fail to understand the BJP's outlook on Antyodaya based welfare and economic development. Antyodaya was necessitated by the extreme dismal state of public service delivery even after 67 years of independence when the Modi govt assumed office in 2014. Therefore Modi govt set out to change the status quo and bring turnaround in India's welfare provisioning under Antyodaya.

Unlike the Congress and other Opposition parties which have deployed welfare as a quid pro quo strategy and tied delivery to electoral support, the BJP's Antyodaya Policy is working for the poorest of the poor and ensuring that no one is left behind. It involves an efficient and honest govt like Modi led BJP govt that delivers on its promises and refuses to accept corruption as a fait accompli. This is because eliminating poverty through the provision of welfare is essentially the duty and responsibility of the govt, rather than an instrumental strategy to win elections.



In the past 9 years, Modi govt ensured that citizens, irrespective of caste, religion, gender, or partisan identification got the benefits of schemes for which they are eligible. *Sabka Saath, Sabka Vikas* embodies this Mantra of inclusive development by Modi led BJP govt. We are moving swiftly towards saturated coverage of flagship programmes, so that no one is left behind.

There is a remarkable turnaround in the output of various welfare schemes and also a significant improvement in outcomes. This has been documented through rigorous evaluations and studies.

Eg: 1) A recent IMF Report found that extreme poverty in India did not increase during Covid-19 but has come to zero. Because, since the Covid lockdown days Modi govt is providing free rations to 80 crore people of the country even now.

2) The World Resources Institute's study on the Ujjwala Yojana revealed a reduction in air pollution deaths, saving more than 150,000 lives every year.

SO, WHAT IS ANTYODAYA UNDER THE MODI GOVERNMENT?

It is a break from an unfortunate past when ex-PMs admitted that a mere 15 paise out of ₹1 sent from Delhi reached the poor, but did nothing to plug leakages.

To comprehensively understand what Antyodaya under Narendra Modi led BJP govt means and why it resonates among the masses, anti-Modi brigade led by Congress and Leftists need to travel beyond Delhi, keep their ears to the ground, and listen to the:

- 3 crore families which have got a new home under the PM Awas Yojana.
- 12 crore farmers who are beneficiaries of ₹6000 every year under the PM Kisan Samman Nidhi
- The 80 crore people who have been receiving ration since the pandemic started;
- The 45 crore poor people who opened their first bank account through the Jan Dhan Yojana;
- The 11 crore poor households in rural India provided with toilets built Under Swachh Bharat Mission;
- The 9 crore households who got their free LPG connection through the Ujjwala Yojana.



- Daughter of 3.25 crore parents who deposited 1.62 lakh crore under 'Beti Bachao, Beti Padhao' programme under Sukanya Samruddhi Scheme;
- 2.86 crore families whose households have been electrified under Saubhagya Scheme
- Approx 4.3 crore hospital admissions, amounting to ₹50,409 crore authorization and as many as 21.9 crore beneficiaries who have been verified under the Ayushman Bharat Pradhan Mantri (4th Jan 2023) Arogya Yojana (ABPM-JAY) Scheme.
- 40 crore borrowers so far under PM Mudra Yojana out of which 27 crore are women beneficiaries and a record amount of ₹4.46-lakh crore dispersed in the financial year ended March 31, 2023 alone.



- Over 5.25 crore subscribers enrolled in Atal Pension Yojana, -a social security system for the poor, the under privileged and the workers in the unorganised sector.
- About 1.1 crore persons trained and 21.4 lakh placed under the second phase of the government's flagship skilling scheme PMKVY (Economic Survey 2022-23).
- 9.52 Crore additional rural households provided with tap water connections in the last 4 years. (About 3.23 Crore rural households had tap water connections till August 2019).
- 90 crore beneficiaries who were delivered state benefits of over Rs 30 lakh crore since 2014 directly in to their bank accounts due to resetting of the subsidy regime through Direct Benefit Transfer Scheme provided by JAM linkage and thus plugged leakage by 100% and given full benefits to genuine beneficiaries in time.

All these people/ households are true beneficiaries as a part of inclusive growth irrespective of their caste, religion, gender or partisan identification. **This is Antyodaya in true spirit.**

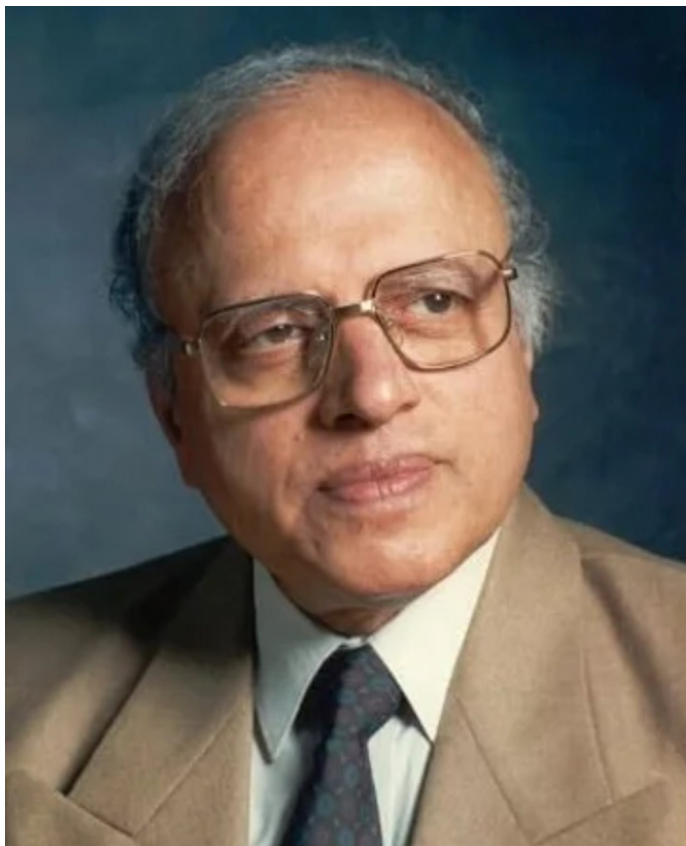
Pt. Deendayal Upadhyaya ji was a beacon of light who talked about Antyodaya. Today, the world is witnessing the power of integral humanism. **Modi govt is converting Pandit Upadhyaya ji's dream of 'Antyodaya' into 'Rashtrodaya' with full commitment and honesty.**

Today, the world looks upon India with optimism, due to the policies of Modi govt deeply rooted in the concept of integral humanism and the relentless pursuit of Antyodaya. It has begun to yield fruit as India treads the path towards becoming a global leader. As we celebrate the birth anniversary of this luminary of Indian politics, let us pay our respects to the great saint, philosopher & thinker who illuminated the path of Antyodaya based inclusive growth and contributed to India's bright future.

Pt. Deendayal Upadhyaya ji's mantra of moving on with the times with the confidence of a victor and resolve of penance is still relevant; Let us move ahead with that mantra in mind.

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TRIBUTE TO Prof. MS SWAMINATHAN



This is a modest attempt to highlight the economic contributions of Prof. MS Swaminathan, whom the world lost on Sep 28th 2023 after having lead a very purposeful & productive life of 98 years.

Born on 7th August 1925 in Kumbhakonam, Dr. Swaminathan's father a surgeon, wished him to study medicine and hence he studied Bachelors in Zoology. The Bengal famine of 1943 during second World War, killing 3 million due to hunger, malnutrition leading to starvation deaths, was the turning point leading Dr. Swaminathan to study B.Sc.(Agri) in the Tamil Nadu Agricultural University, the then Madras Agriculture College, from 1944 to 1947. He later studied Masters in Agriculture at IARI (Indian Agricultural Research Institute), New Delhi in Genetics & Plant Breeding in 1949, and though selected to IPS preferred the UNESCO fellowship in genetics in Netherlands offered to him. He obtained Ph.D. in Plant Breeding from University of Cambridge School of Agriculture in 1952 and pursued post-doctoral research in University of Wisconsin. In the course of his academic work he published significant original research papers in journals of repute such as *Genetics*, *Nature*, *Journal of Heredity*, *Genetica*, *Euphytica*, *Bibliographica Genetica*, *American Journal of Botany*, *American Potato Journal*.

ECONOMIC SITUATION PREVALENT IN THE 1950S

Between 1956 & 1962, India imported ₹6860 million worth of agricultural commodities, around 4 million tonnes of wheat, from the USA under the Public Law 480 (PL480) project. The purpose was to meet the domestic demand at subsidized prices through 50,000 fair price shops selling 2 million tonnes of wheat and 2 million tonnes of flour to protect vulnerable population from high prices of food grains.

As food inflation continued to rise in 1964, the government increased imports to 7 million tonnes as also the number of fair price shops to 100,000 to meet domestic demand. These measures also could not protect the poor and vulnerable population and in 1965, it became clear to the Government that PL 480 food supplies were not so dependable and was a matter of national humiliation due to 'ship to mouth' existence.

The imports of wheat under PL 480 formed 80% of India's total wheat imports between 1956 and 1962. Rice imports under PL480 formed 45% of total rice imports. Since 1956, annual wheat imports in PL480 formed 28% of India's production and rice imports formed 0.5 to 1% of India's production. Thus, food production was subjected to severe seasonal fluctuations causing food inflation & economic distress. These caught the attention of Dr. Swaminathan who delved into (i) Research for solving problems of humanity & environment and (ii) Research for increasing profit margins of corporate enterprises in a globalized world.

CROP BREEDING

After working as assistant botanist in Central Rice Research Institute in Cuttack, Dr. Swaminathan joined IARI as Assistant Cytogeneticist in 1954. This was the time when India was importing food grains as drought and famine were crippling the country. The question was how to raise agricultural production and productivity of wheat & rice.

Through indica-japonica rice crosses, and interspecific hybridization, inducing radiation and chemical mutagenesis and plant growth regulators, tailored rice plant type by reducing plant height without reducing the length of grain bearing panicle and made plants responsive to fertilizer application. He traced the Norin-10 dwarfing genes from Japan in wheat and Deejee-woo-jen dwarfing genes from China in rice.

GREEN REVOLUTION

Dr Norman Borlaug a Ph.D. in plant protection worked in Mexico in 1940s & 1950s to make Mexico self-sufficient in wheat by developing dwarf wheat, a robust strain of wheat adapted to Mexican conditions. By 1956, Mexico was self-sufficient in wheat. At IARI, Dr. Swaminathan came to know of Dr. Norman Borlaug's newly developed Mexican dwarf wheat. Dr. Swaminathan contact with Orville Vogel of Washington State University at Pullman helped to reach Dr. Norman Borlaug, Director of CIMMYT, Mexico who was the most sought after advisor regarding food security. PMMS extended invitation to Dr. Norman to visit India in the mid-1960s which saw the introduction of dwarf wheat varieties responsible for increasing the production substantially. Their joint efforts disproved the Malthusian theory of population that while population rises in geometric progression, food production rises in arithmetic progression.

PMMS and Dr Norman Borlaug worked together to develop wheat varieties providing higher yields as well as biomass. Dr. Swaminathan heralded new modes of educating farmers through high-yielding wheat varieties, fertilizers & efficient farming techniques through thousands of demonstration and test plots and the production of wheat increased from 12 million tonnes to 23 million tonnes in four crop seasons ending India's reliance on grain imports. The combinations of Dr. Swaminathan, Dr. BP Pal as breeders, C. Subramaniam, Minister of Food & Agriculture and B. Shivaraman, Member of Planning Commission as policy makers with efforts of Nobel laureate Norman Borlaug with the active participation of scientists and teachers of various State Agricultural Universities, ICAR Research Institutes and the various State Departments of Agriculture was responsible for India's Green Revolution.

When Norman Borlaug was awarded the Nobel Prize for Peace in 1970, he wrote 'to you Dr. Swaminathan, a great deal of the credit must go for first recognizing the potential value of the Mexican wheat dwarfs. Had this



*Dr. Norman Borlaug
Nobel Laureate 1970*

not occurred, it is quite possible that there would not have been a Green Revolution in Asia. This changed India's image from a 'begging bowl' to a 'bread basket'.



TEACHING AT IARI

Dr. Swaminathan taught cytogenetics-I and radiation genetics at IARI during the 1960s and every student listened to his lectures with great interest and enthusiasm. Riding his bicycle from Botany division to punctually teach in class room irrespective of rain, heat or biting cold in Delhi at 8.15 a.m., he was a 'born teacher' making students grasp fundamentals with amazing clarity of expression.

As a Masters student in Agricultural Economics at UAS Bangalore in 1974, when I was pursuing Masters dissertation on crop insurance for potatoes in Hassan, a risky crop, to my letter on this subject addressed to Dr. Swaminathan as DG ICAR, Dr. Swaminathan responded so promptly encouraging me to pursue research on how crop insurance for potatoes can be devised for the benefit of farmers.

LAB TO LAND PROGRAMME

As Principal Secretary, Ministry of Agriculture in 1980s, Dr. Swaminathan heralded the Lab to Land programme as part of the golden jubilee celebrations of ICAR to improve economic conditions of marginal, small farmers & landless labourers, SC & ST farmers with transfer of modern technology developed by State Agri Universities & ICAR Research institutions.

INTERNATIONAL RECOGNITION

He was invited to be the Director General of the International Rice Research Institute, Philippines in 1982. In 1987 Dr. Swaminathan was chosen as the 1st World Food Prize Laureate, which he used to establish MSSRF in Chennai in 1988. Here he promoted

discussions among agricultural scientists, social scientists, field workers to reach the unreached addressing protection of coastal biodiversity, promotion of biotechnologies, ecotechnology, community education, technical training, low-cost and self-maintained programs for rural internet access, empowering farmers towards increased food security and sustainable development.

Dr. Swaminathan became the first citizen of a developing country to be elected as President of the Nobel Peace Prize-winning Pugwash Conferences on Science & World Affairs in 2002 to reduce danger of armed conflict & co-operatively solving global problems.

Dr. Swaminathan and Dr. Pedro Sanchez the World Food Prize Laureates of 1987 & 2002 worked in the Hunger Task Force of the United Nations Millennium Project towards reduction of poverty, hunger, disease, illiteracy, environmental degradation & discrimination against women.

In 2008 Dr. Swaminathan became the Chairman of The World Food Prize Selection Committee. With over 50 honorary doctorates awarded to Dr. Swaminathan from universities world over, he was awarded membership of 30 academies worldwide, including Royal Society of London & Indian National Academy of Science.

Dr. Swaminathan won the 1994 UNEP Sasakawa Environment Prize; UNESCO Gandhi Gold Medal in 1999; 1999 Indira Gandhi Prize for Peace, Disarmament & Development; Franklin D. Roosevelt Four Freedoms Award in 2000. The TIME Magazine honored him as one of the 20 most Influential Asians of the 20th century. Former United Nations Secretary General Javier Perez Cuellar hailed Dr. Swaminathan as "a legend who will go into the annals of history as a world scientist of a rare distinction."

EVERGREEN REVOLUTION

Dr. Swaminathan realized that in the long run 'Green Revolution' can lead to Greed Revolution, mentioning in his address to the 55th Indian Science Congress, Varanasi, 1968. Realizing that the high fertilizer responsive 'green revolution' suffered from sustainability and environmental concerns after achieving its immediate and limited goal of pushing cereal production above population growth, observing the yield fatigue in the 1980s, Dr. Swaminathan propounded the Evergreen Revolution. The purpose is to fight famines of food and rural livelihoods with an eco-friendly approach avoiding degradation of soil health, fresh water, biodiversity and atmosphere on the one hand and avoiding disintegration of social harmony due to various inequities with due consideration of environmental safety & social harmony.

Thus for sustainable development not to be an oxy-

moron was devised to pay attention to social, environmental & economic sustainable development. 'Evergreen Revolution' is based on 'Systems Approach' with focus on ecological foundation.

President Barack Obama, referring to 'Evergreen Revolution' book by Dr. Swaminathan in his address to Parliament on 8 Nov 2010 said: 'Together, we can strengthen agriculture. Co-operation between Indian & American researchers & scientists sparked the Green Revolution.'

Today, India is a leader in using technology to empower farmers, like those I met yesterday who get free updates on market & weather conditions on their cell phones. And the United States is a leader in agricultural productivity & research. Now, as farmers & rural areas face the effects of climate change and drought, we will work together to spark a second, more sustainable Evergreen Revolution.'

HIDDEN HUNGER

Dr. Swaminathan addressed 3 types of hunger: (i) under-nutrition due to calorie deficiency (ii) protein deficiency due to inadequate milk, pulses, eggs, meat (iii) 'hidden hunger' due to dietary deficiency of iron, iodine, zinc, vitamin A, vitamin B12, etc., Under nutrition & protein deficiency can be addressed through cereal grains & pulses, while 'hidden hunger' requires conscious focus on nutrition-sensitive agriculture in the resource-poor small & marginal farms. Thus he focussed on Farming System for Nutrition (FSN) for integration with Evergreen Revolution for the benefit of millions of resource-poor farmers in India.

In his Science editorial (1 Aug 2014, Vol-345, p. 491) on 'Zero Hunger' Dr. Swaminathan indicated that family farming offers an effective & economic solution to help meet the challenge of making sure that each person has access not just to calories but to nutritious food. Projecting an estimated 8 billion people to be fed by 2025, he propounded the best solutions for reaching zero hunger. MSS with shift from 'food security' focus to 'nutrition security' eliminating poverty-driven hunger (under-nutrition) and the 'hidden hunger' due to lack of balanced diet with micronutrients, vitamins. Dr. Swaminathan suggested along with cereals, oil-seeds, pulses, to consume naturally bio-fortified plants like drumstick, sweet potato, berries, bread-fruit, citrus species rich in micro-nutrients & vitamins to be cultivated in family farms. This is in order to alleviate nutritional deficiencies as also provide economic benefit to millions of resource-poor small family farmers.

SPIRITUAL GLOBALIZATION MORE THAN ECONOMIC GLOBALIZATION

Dr. Swaminathan as the President of Pugwash Conferences on Science and World Affairs (2002-2007), added

hunger and pandemics like HIV/AIDS similar to nuclear threats & technology be devised by ethical pull, human dignity and gender equity. He introduced a basic change in the approach emphasizing 'spiritual globalization' more than economic globalization.

SUPPORT TO CONSERVATION OF LAND RACES

Dr. Swaminathan's support to conservation ethos of Koraput tribal women in landraces of rice led to the tribal women winning Equator Initiative Award at UN Conference on Sustainable Development at Johannesburg in 2002 and the Genome Saviour Award of the Protection of Plant Varieties and Farmers' Rights Authority of India in 2007.

PROTECTION OF SILENT VALLEY

The 'Swaminathan Report' on Silent valley proposed the development of Silent Valley into a 'National Rainforest Biosphere Reserve' suggesting alternate ways to generate energy and Dr. Swaminathan was responsible for saving the Silent Valley, the evergreen rainforest and the Swaminathan Report was approved by the PM Indira Gandhi.

ECOLOGICAL CONSERVATION

When the Dec 2004 tsunami devastated coastal Tamil Nadu, the loss of lives & livelihood was reduced due to mangrove restoration undertaken by the MS Swaminathan Research Foundation (MSSRF). The study revealed how the thick mangrove vegetation greatly reduced the velocity of tsunami waves. Dr. Swaminathan article 'Beyond tsunami: an agenda for action' (Hindu, 17 Jan 2005) is widely referred for minimizing loss of lives and livelihoods due to such disasters in future and enhancing coping capacity.

Dr. Swaminathan had a significant role in global recognition of the 'Gulf of Mannar Marine Biosphere and the traditional cultivation of paddy below sea level in Kuttanad of Kerala as a globally important agricultural heritage site.

INTERNATIONAL RESEARCH ADVISORY

Though China is the largest rice producer, it lacked research support and Dr. Swaminathan helped to build 'China National Rice Research Institute' at Hangzhou, 'National Genetic Resources Centre' at Beijing, a 'Hybrid Rice Research Institute' at Changsha in Hunan, 'Azolla Research Institute' in Fuchow. The Academy of Sciences, China and the Chinese Agricultural Science Academy elected him as Honorary Professor, and the Chinese Government honoured him.

VIETNAM & KAMPUCHEA

Dr. Swaminathan helped Vietnam in 1975, to develop

Research Institutes for rice in Mekong delta and for she-buffalow to increase rice & milk production, which made Vietnam the second largest exporter of rice. Due to Civil War of Pol Pot in Kampuchea in 1985, destroying research institutes, Dr. Swaminathan helped rebuild rice R & D infrastructure at Pnom Penh with financial support from Australian by training young Kampuchean scientists at IRRI. in different areas of rice research at IRRI, transforming Kampuchea from food deficit to food exporting country.

SRILANKA & PAKISTAN

In Srilanka, Dr. Swaminathan promoted sustainable rice farming systems in the Mahavalli Command Area introducing modern rice farming practices. He served as the Chairman of International Water Management Institute, Colombo and offered Sri Lanka support in producing more crop per drop of water. Sri Lanka established a 'Sri Lanka Room' in IRRI's Swaminathan Hall.

In Pakistan, Dr. Swaminathan strengthened rice research in West Punjab (Kala Shah Shaku Research Station and Sind for breeding salt-tolerant high quality rice. Pakistan invited him to deliver keynote address for the inauguration of the Pakistan National Agricultural Research Institute at Islamabad. Similarly rice production in Iran was supported by Dr. Swaminathan through research capacity-building of Iranian rice scientists at IRRI, helping Iran to improve rice production.

With the demise of Prof. MS Swaminathan on Sep 28, 2023, one of his finest students at UAS Bengaluru, Prof. A. Seetharam, former co-ordinator of AICRP on millets, great sunflower & ragi breeder of international repute remarked: "Great loss to country, lost a great scientist, administrator, teacher, mentor, and leader. I was very fortunate to be his student and learnt basics of Cytogenetics & Radiation Biology in IARI. He helped all students in moulding their career."

Prof. Seetharam also opined that with his unique & great contributions towards food security & development crucial for India, Dr. Swaminathan should have been awarded the 'Bharat Ratna'.

Dr. Swaminathan is respected for contributions to food and nutrition security of India and other developing countries and the Time magazine of USA of Aug 1999 cited Prof. MS Swaminathan as one of the 3 most Influential Indians (along with Mahatma Gandhi and Rabindranath Tagore) among the 20 most distinguished Asians of the 20th century. ■

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