

POLICY AND GOVERNANCE JOURNAL



SPECIAL ISSUE ON
UNION BUDGET
2023-24

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PREFACE

Center of Policy Research and Governance (CPRG) is a Delhi-based independent think tank that aims to promote responsive and participatory policy-making through cutting-edge research and analysis across a wide range of policy areas. We seek to bring together multiple stakeholders to provide effective solutions for contemporary policy challenges. CPRG works in close cooperation with leading public policy practitioners and scholars from across the globe. We actively provide training and opportunities for young individuals interested in pursuing a career in policy-making and governance. CPRG's efforts to understand the current Union Budget for 2023- 2024 and its socio-political and economic implications are presented through this booklet.

The Union Budget 2023-24 promises to expand the opportunities for the youth, growth and job creation, and creation of a solid and stable macro environment in the context of Amrit Kaal. The seven Saptarishi/ priorities of the budget include a renewed focus on the financial sector, green growth, youth power, infrastructure and investment, inclusive development and unleashing the economy. The current budget talks mainly about holistic policy interventions in education, women's development, youth, environment, health, skill India and employment, MSME and Manufacturing, Infrastructure and logistics, agriculture, urban-rural development, economy and finance.

This booklet highlights the provisions made for each sector, followed by an analysis of the current allocations; analytical papers on relevant themes follow the highlights and the analysis. The contributors to this book are Arnav Jain, Arjun Kumar Singh, Adithya M, Raksheta Raman and Yash Gupta.

The budget is essentially a financial statement that each government presents before the end and beginning of the financial year but in India, it is often seen as a platform for making announcements. A few years back, the halting and announcement of new trains were also the main highlights of the budget. Nevertheless, the current government has made commendable strides in avoiding such photo opportunities and prioritizing sound policy decisions throughout the year. This trend represents a significant development that we have witnessed in recent years. As an organization, we are concerned about the country's financial health, which ultimately affects policy decisions. In this booklet, we have tried to analyze the budget allocation in some key areas and explain its effect on the country. In this booklet, we have tried to analyze the budget allocation in some key areas and explain its effect on the country.

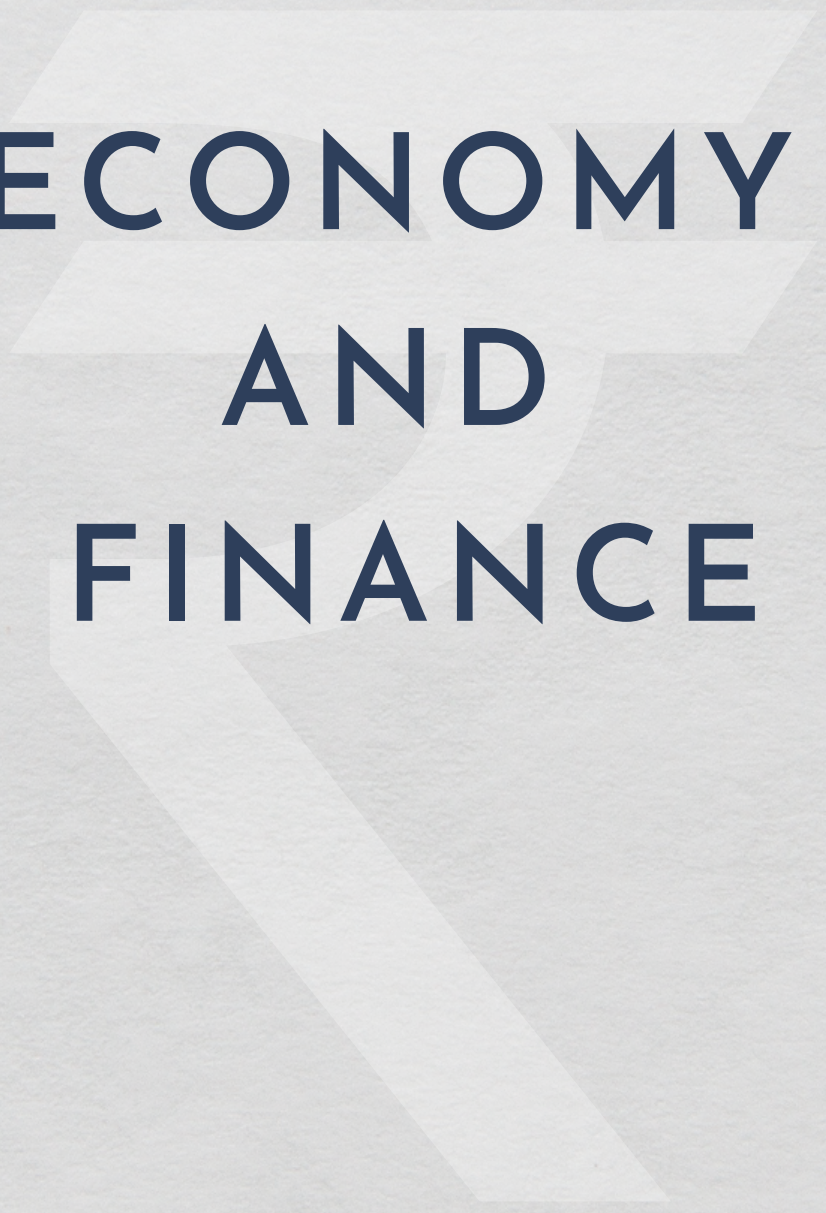
Further, I am thankful to my team, comprising Rupal Kalebere, Arjun Kumar Singh, Arnav Jain, Adithya M, Raksheta Raman and Yash Gupta, for their valuable contribution in giving the report its present shape.

Dr. Ramanand,
Director,
Center of Policy Research and Governance

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BUDGET HIGHLIGHTS and ANALYSIS 2023-24



ECONOMY AND FINANCE

HIGHLIGHTS

- Current year's economic growth is expected to be at **7%** which is the highest among major nations, and the per capita income has **more than doubled to 1.97 lakh rupees since 2013-14**. This has made the Indian economy **move from 10th to the 5th largest in the world**.
- A **central processing sector** is to be set up for faster response to companies by centralised handling of various forms and an **integrated IT portal** is to be set up for reclaiming unpaid shares and dividends from '**Investor Education and Protection Fund Authority**' with ease.
- The maximum deposit limit for the **Senior Citizens Saving Scheme** has been increased from **Rs 15 lakhs to Rs 30 lakhs**.
- States to be allowed **fiscal deficit of 3.5% of Gross State Domestic Product (GSDP)**, of which 0.55% is tied to public sector reforms.

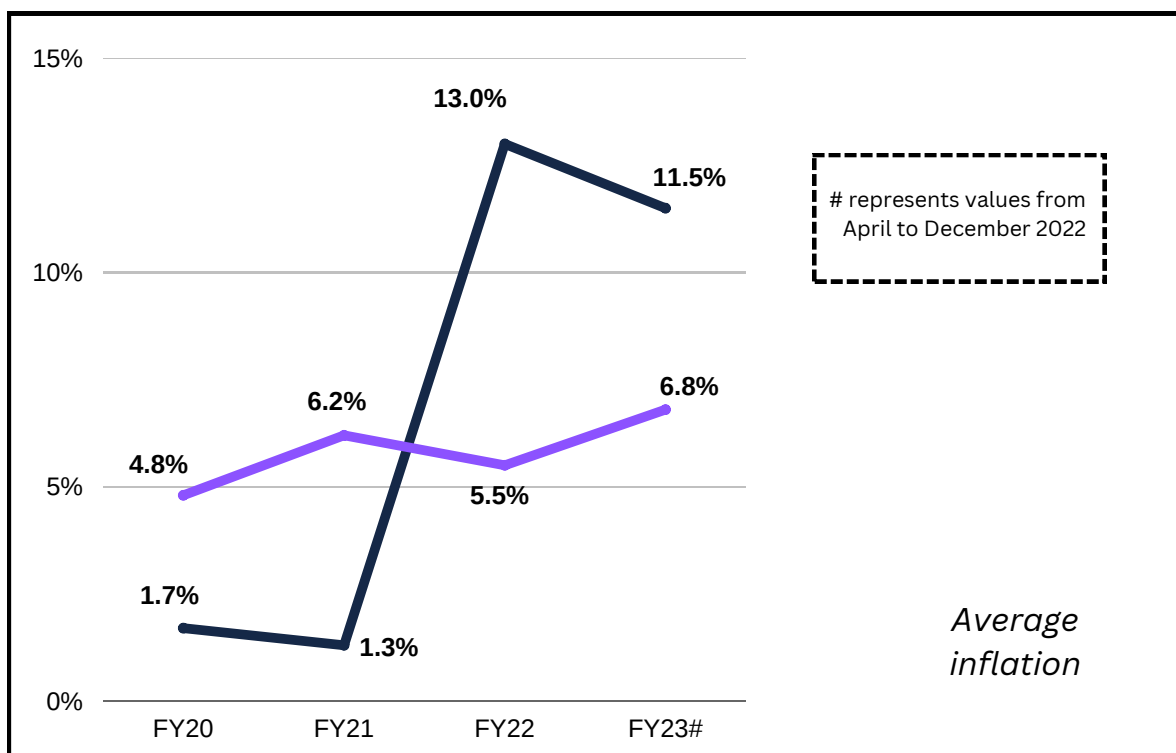
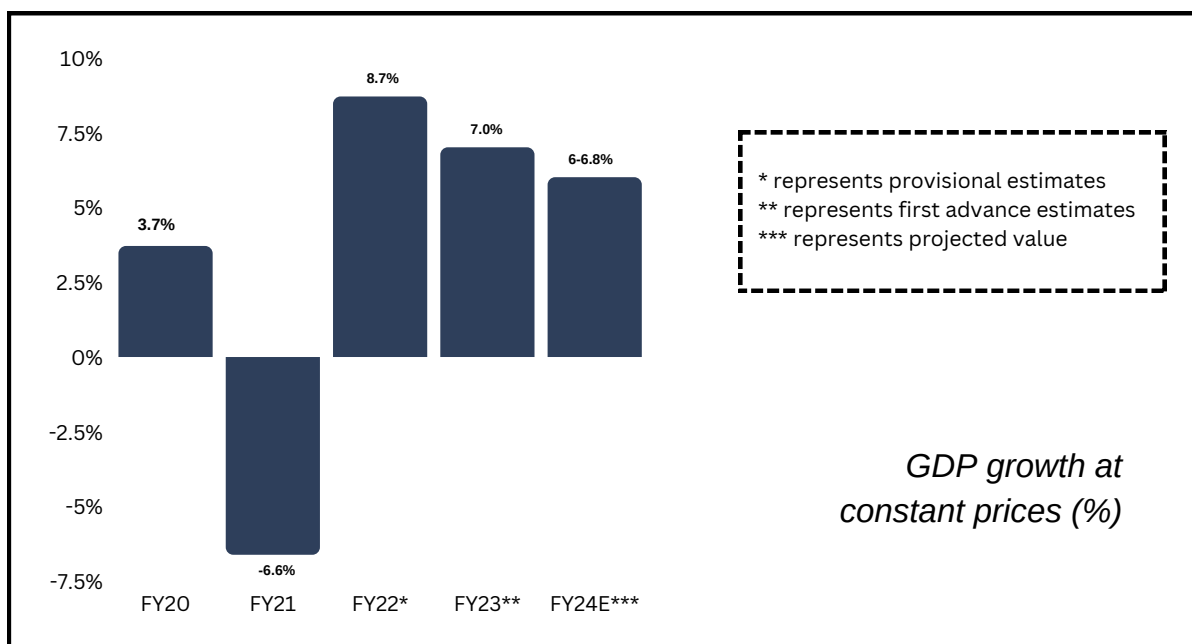
REVISED ESTIMATES

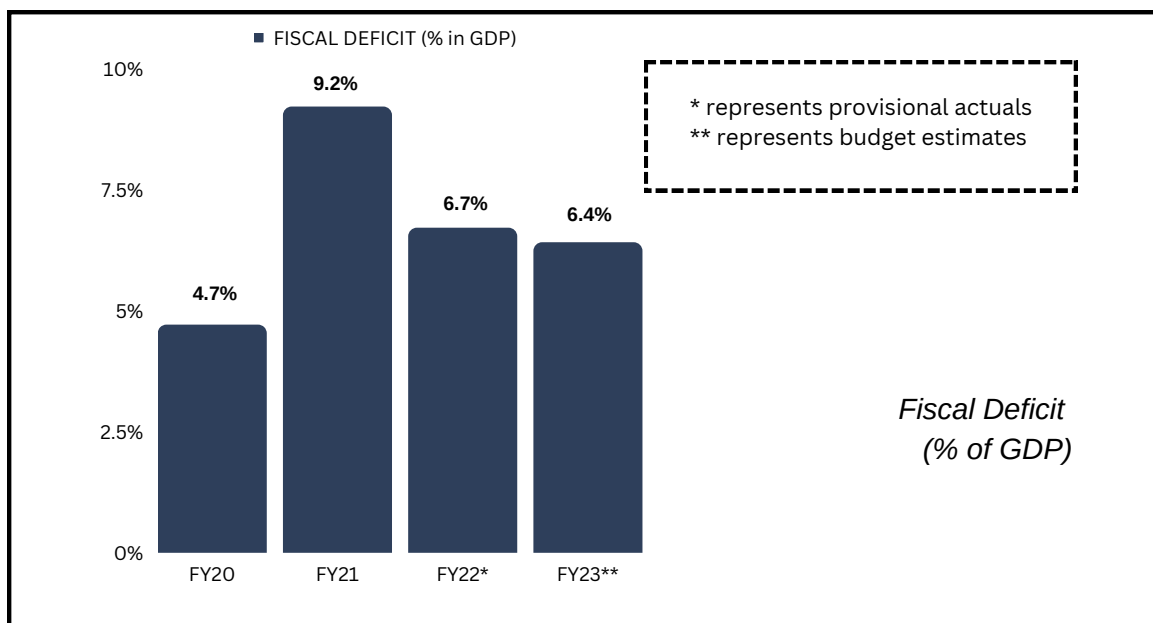
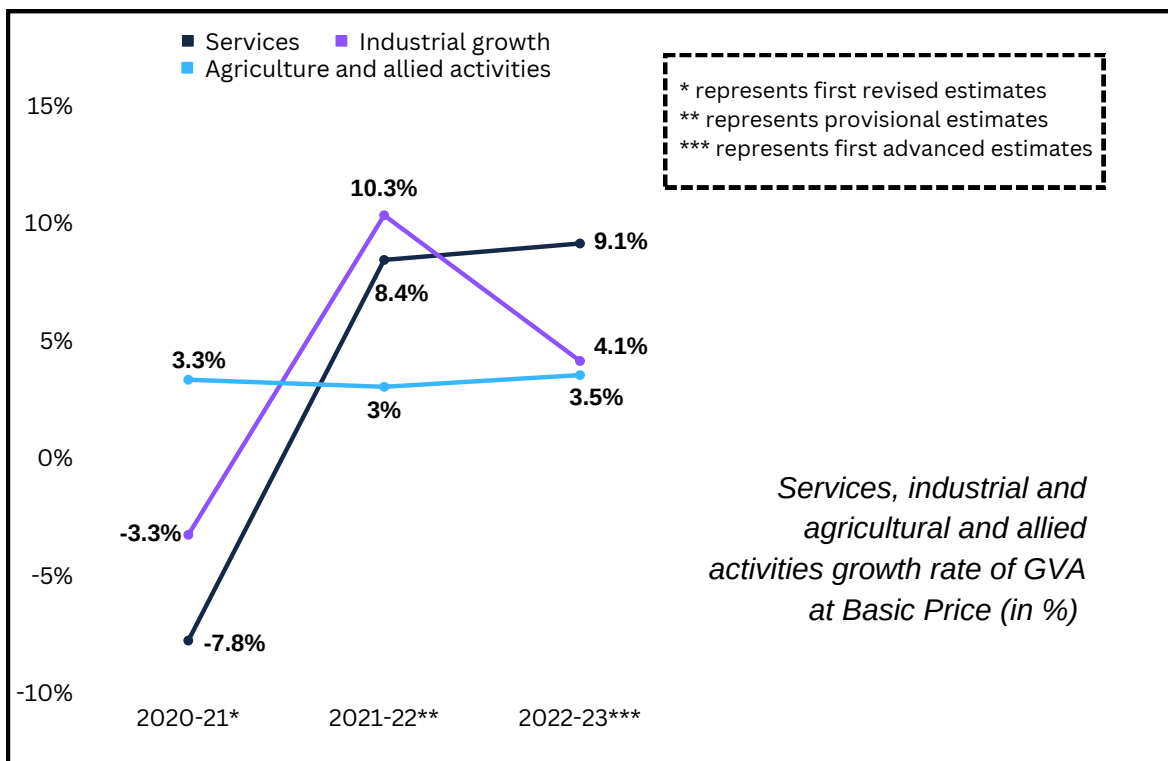
- The **total receipts** other than borrowings stand at **Rs 24.3 lakh crores**, of which **net tax receipts are Rs 20.9 lakh crores** whereas the **total expenditure stands at Rs 41.9 lakh crores** of which **capex is Rs 7.3 lakh crores**. The fiscal deficit is **6.4% of GDP**, adhering to the budget estimate.

BUDGET ESTIMATES FOR 2023-24

- BE for 2023-24 stand at:
 - Total receipts other than borrowings: **Rs 27.2 lakh crores**
 - Total expenditure: **Rs 45 lakh crores**
 - Net tax receipts: **Rs 23.3 lakh crores**
 - Fiscal deficit: **Rs 5.9% of GDP**
 - Fiscal Consolidation: **<4.5% by 2025-26** with a fairly steady decline
 - Net market borrowings from dated securities: **Rs 11.8 lakh crores**
- New cooperatives, which commence manufacturing activities till March 31, 2024, shall benefit from a **lower tax rate of 15%** as presently available to new manufacturing companies
- The **date of incorporation of income tax benefits** to startups is proposed to extend from **31/3/23 to 31/3/24**. The benefit of carrying forward losses on change of shareholding of startups from seven years of incorporation to ten years is also provided.
- The **minimum threshold of Rs 10,000 for TDS** is proposed to be removed, and taxability relating to online gaming shall be clarified.
- The **conversion of gold into electronic gold receipt, and vice versa, shall not be treated as a capital gain**.
- Persons with incomes up to **7 lakhs are proposed to be exempted from tax**. The tax regime in 2020 had **6 income slabs starting from 2.5 lacs**, now the number of slabs has been reduced to **5, with exemptions up to 3 lacs**.
- Revenue of **Rs 38,000 crores will be foregone** with these proposed measures, while Rs 3,000 crores will be additionally mobilised. Thus the total revenue foregone will be around Rs 35,000 crores.

- **EXPENDITURE:** The government proposes to **spend Rs 24,03,097 crores in 2023-24, which shows an increase of 7.5%** over the revised estimate of 2022-23. As of 2022-23 the **expenditure is estimated to be 6.1% higher than the budget estimate.**
- **RECEIPTS:** The receipts (other than borrowings) in 2023-24 are expected to be to Rs 27,16,281 crores, **an increase of 11.7% over revised estimate of 2022-23.** In 2022-23, total receipts (other than borrowings) are estimated to be **6.5% higher than the budget estimates.of 2022-23.**
- **GDP:** The government has estimated a **nominal GDP growth rate of 10.5%** in 2023-24 (i.e real growth plus inflation).
- **DEFICITS:** **Revenue deficit in 2023-24 is targeted at 2.9% of GDP**, which is lower than the revised estimates of 4.1% in 2022-23. **Fiscal deficit in 2023-24 is targeted at 5.9% of GDP, lower than the revised estimate of 6.4% of GDP in 2022-23.** While the revised estimate as a percentage of GDP was the same as the budget estimate, in nominal terms, the fiscal deficit was higher by Rs 94,123 crores (increase of 5.7%) in 2022-23. Interest expenditure at Rs 10,79,971 crores is estimated to be **41% of revenue receipts.**
- **MINISTRYWISE ALLOCATION:** Among the top 13 ministries in 2023-24, the **highest percentage increase in allocation is observed in the Ministry of Railways (49%),** followed by the Ministry of Jal Shakti **(31%),** and then the Ministry of Road Transport and Highways **(25%).**





MAIN TAX PROPOSALS IN THE FINANCE BILL

- Changes in the new income tax regime: **The number of tax slabs have been reduced from 6 to 5.** Now, those **with an income up to Rs 7 lakhs** can avail the tax rebate and have not to pay taxes, previously it was Rs 5 lakhs. The surcharge on the income when it exceeds Rs 5 crore will be reduced from 37% to 25%. The standard deduction will be available under the new tax regime.

- The tax exemption for news agencies set up solely for the collection and distribution of news will be removed. Charitable trusts are required to apply 85% of their income within the year to avail income tax exemption. From April 2023, if a charitable trust donates to another charitable trust, only 85% of such a donation would be considered as application of income.

TAXABLE INCOME (INR)	TAXABLE RATE (%)
Upto 3,00,000	Nil
3,00,001-6,00,000	5%
6,00,001-9,00,000	10%
9,00,001-12,00,000	15%
12,00,001-15,00,000	20%
Above 15,00,000	30%

- The income tax rate for new cooperative societies engaged in manufacturing activities has been lowered from **22% to 15% (plus 10% surcharge)**.
- The deduction from the capital gains from sale of residential property which can be deducted to the extent of purchase or construction of another residential property is capped at Rs 10 Crores.
- The upper limit on turnover for MSMEs to be eligible for presumptive taxation has been raised from Rs 2 crores to Rs 3 crore. The upper limit on gross receipts for professional eligible or presumptive taxation has been raised from Rs 50 lakhs to Rs 75 lakhs.
- The CGST Act will be amended such that input tax credit will not be available for goods and services purchased for use in activities related to corporate social responsibility.

- For the startups, the period within which losses of startups may be carried forward has been extended from seven to ten years. Additionally, startups incorporated within a time period and meeting other conditions can deduct up to 100% of their profits, the end of this period has been extended from March 31, 2023 to March 31, 2024.
- Under the life insurance bracket, the income from investments in life insurance policies will be taxable if premium of Rs 5 lakhs has been paid in any year. The amount paid upon the death of the policyholder will continue to be exempt from income tax.
- In the new tax regime the winnings from online games will be subject to 30% tax deductible at source.

RECEIPTS ANALYSIS FOR 2023-24

- **RECEIPTS:** The receipts excluding borrowings in 2023-24 are estimated to be at **Rs 27,16,281 crores, an increase of 11.7% over the revised estimates of 2022-23**
- **CAPITAL RECEIPTS:** The capital receipts excluding borrowings are targeted at **Rs 84,000 crores**, a marginal increase of 0.6% over the revised estimates of 2022-23. Recoveries from loans and advances were 64% higher in the revised estimates of **2022-23 at Rs 23,500 crores compared to budget estimates of Rs 14,291 crores.**
- **TAX REVENUE:** The gross tax revenue is budgeted to increase by 10.4% over the revised estimates of 2022-23, which is about the same as the estimated nominal GDP growth of 10.5% in 2023-24. Corporation tax and income tax are estimated to increase at the same rate as the nominal GDP i.e. 10.5% . Excise duties mainly imposed on petroleum products are expected to rise by 5.9% in 2023-24. GST revenue is budgeted to increase at a higher rate i.e 12%. The net tax revenue of the central government excluding the states' share in taxes is estimated to be **Rs 23,30,631 crore in 2023-24**, which is 11.7% over the revised estimates for 2022-23.

- **NON TAX REVENUE:** The non tax revenue is estimated at Rs 3,01,650 crores in 203-24, an increase of 15.2% over the revised estimate of 2022-23.
- **NON TAX RECEIPTS:** The dividend receipts were lower in 2022-23 than originally budgeted mainly on account off lower dividend from RBI. in 2023-24, non tax revenue is expected to increase by 15% over the revised estimates of 2022-23
- **The devolution of states'** from centre's tax revenue is estimated to be Rs 10,21,448 crores in 2023-24, an increase of 7.7% over the revised estimates of 2022-23, the devolution of states increased by Rs 1,31,756 crores, from an estimate of Rs 8,16,649 crores at the budgeted stage to Rs 9,48,405 crores at the revised stage of 16%.
- **INCOME TAX:** The collections from income tax are expected to increase by 10.5% in 2023-24 to Rs 9,00,575 crores. Income tax collection is expected to be 16% higher than the budget estimate Rs 7,20,000.
- **CORPORATION TAX:** The collections from taxes on companies are expected to increase by 10.5% in 2023-24. In 2022-23 corporate tax collection is expected to be 16% higher than the budget estimate in 2022-23

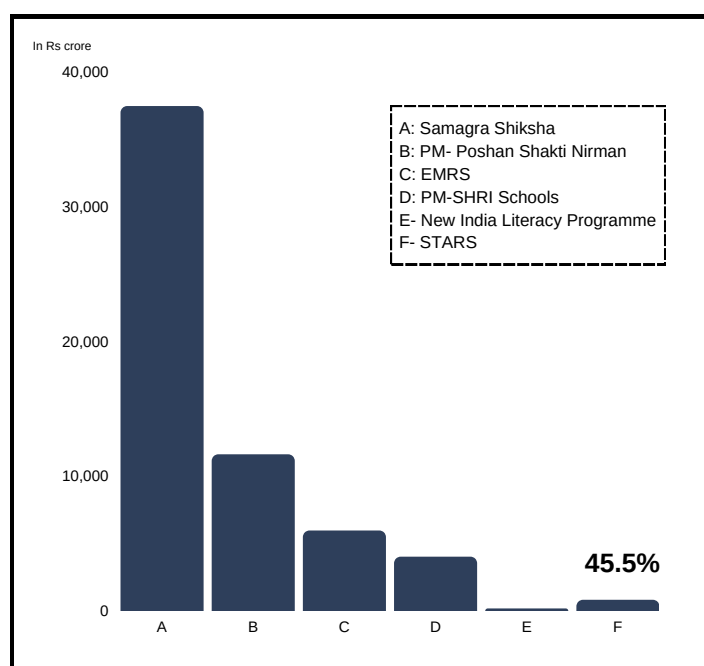


EDUCATION

HIGHLIGHTS

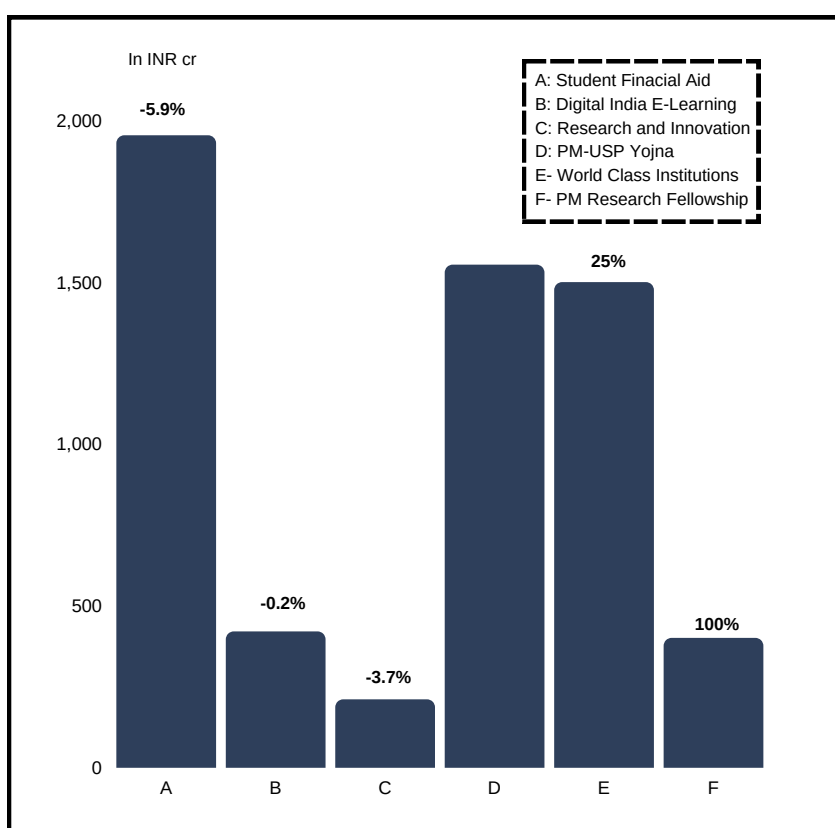
- **Centres for excellence for artificial intelligence** are to be set up in top educational institutions. Three centres of excellence for artificial intelligence will be established in prestigious educational institutions to implement the aim of "Make AI in India and Make AI work for India." Leading business players will collaborate to perform multidisciplinary research, create cutting-edge apps, and find scalable solutions to issues in the fields of sustainable cities, health, and agriculture. As a result, an efficient AI ecosystem will be stimulated, and skilled workers will be nurtured.
- **157 nursing colleges to be established:** The establishment would be in co-allocation with the existing 157 colleges since 2014.
- In the upcoming three years, more **Eklavya Model Residential Schools** will be established. 38,800 teachers and support staff will be hired by the Center to work in 740 schools that will serve 3.5 lakh tribal students.
- A **National Data Governance Policy** will be released to encourage scholarly and entrepreneurial research and innovation.
- **Increase in grants:** A grant increase of Rs 459 crores has been made to the University Grants Commission (UGC). In comparison to Budget estimate 2022–23, support for Central Universities has increased by 17.66%, for Deemed Universities by 27%, IITs by 14%, and NITs by 10.5%.
- **Teacher's training:** Innovative pedagogy, curricular change, ongoing professional development, dipstick surveys, and ICT adoption will reimagine the teacher-training process. In order to do this, the District Institutes of Education and Training will be transformed into centres of excellence.

- The **highest ever spending made on education was witnessed this year with an 8.2 percent hike from the previous year**. The allocation for school education has increased from Rs 63,449 crores in 2022- 2023 to Rs 68,804 crores in the current union budget for school education. The allocation to the higher education segment also stands at Rs 44,904.62 crores.
- The total amount set aside for education is around **Rs 1.12 Lakh crores**. From the revised estimates the amount shows a 13 percent increase as per reports. The budget estimate allocation of 2022-2023 was around Rs 1,04,277.72 crores from which the revised estimates went down to around Rs 99,881.13 crores. The increased allocation shows our focus and aspiration more towards a knowledge driven economy.



Budget allocation for major school education sector schemes

- While **Sarva Shiksha Abhiyan** has been allocated **Rs 37,453 crores** with a mere change where the previous budget estimate shows an allocation of Rs 37,383 crores.
- A concern regarding the education aspect of the Budget pertains to the rise in interest for study abroad loans. Since India is a rising economy, this policy change stands as a hurdle for knowledge base expansion in the global arena.



Budget allocation for major higher education sector schemes



SKILL INDIA AND EMPLOYMENT

HIGHLIGHTS

- The enhanced budget allocation of **Rs 10 lakh crores** for capital expenditure is one of the main tenets of state effort to foster job creation.
- To upskill country's youth for international opportunities, the Centre will set up **30 'Skill India International Centres'** across different states
- The minister also said that a pan-India '**National Apprenticeship Promotion Scheme**' will be introduced to provide stipend support to 47 lakh youth in three years through direct benefit transfers.
- Launch of a unified '**Skill India Digital Platform**' that will enable demand-based formal skilling, link youth with employers including MSMEs, and facilitate access to entrepreneurship schemes.
- There has been a new addition this year, **Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme**. It is an integrated scheme that converges five erstwhile schemes of the Ministry of Minority Affairs - Seekho aur Kamao, USTTAD, Hamari Dharohar, Nai Roshni and Nai Manzil. With Rs. 540 crores allocated, it focuses on the skilling, entrepreneurship and leadership training requirements of the minority and artisan communities across the country. The scheme is intended to be implemented in conjunction with the '**Skill India Mission**' of the Ministry of Skill Development & Entrepreneurship.

- The allocation of Ministry of Skill Development and Entrepreneurship has been increased by 14.7% as compared to last year to **Rs.3,517.31 crores**. However, complete utilisation of the amount remains a challenge. In 2022-23, only 63% of the allocation, that is, Rs.1901.71 crores, was utilised. Skill India Programme with an allocation of Rs.2278.37 crores launched for the first time.
- The allocation to the Ministry of Labour and Employment decreased by over 20%, from Rs.16,893.68 crores last year to Rs.13,221.73 crores in 2023-24.
- The government has sharply reduced the allocation for **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)** by **21.6% at Rs. 60,000 crores**, making it the lowest budget allocation for the scheme in the last five fiscal years. The government assumes that since the economy is free of the pandemic-induced tensions, there will be less demand for this scheme. While there was an increased funding to the scheme during pandemic, the current allocation is even lower than pre-pandemic levels. Additionally, the Finance Minister in an interview recently stated that the reduced allocation to MGNREGA will be compensated by the increase in schemes such as the Jal Jeevan Mission and the Pradhan Mantri Awas Yojana, whose labour will also come from the same rural population that is served by MGNREGS. However, being a demand-driven scheme, the possibility of it being allocated an additional amount remains open.
- Under the Ministry of Minorities Affairs, funding for **‘Skill Development and Livelihoods’** drastically reduced from Rs. 491.91 crores last year to Rs. 64.40 crores this year, a reduction of over 86%. While it is tough to understand this reduction specifically in the absence of any clarification, the government recently has slashed several schemes for the minorities claiming an overlap from other development schemes. Perhaps the increased budget of the Ministry of Education might explain this reduction to some degree.



HIGHLIGHTS

- To empower the youth and assist the '**Amrit Peedhi**' in realising their aspirations, the Government intends to work extensively on the **National Education Policy-2020**, which has a wide range of objectives, one of which is to focus on skilling.
- **Sab ka Saath Sab ka Vikas Yojna** - The scheme's three primary goals are: 1. To provide **opportunities to Indian citizens**, with special emphasis on youth; 2. Provide a **strong push to job creation and growth**; and 3. **Macro-Economic stability**.
- **Pradhan Mantri Kaushal Vikas Yojana 4.0** will be released in the next three years to skill lakhs of youth through initiatives like on-the-job training, industry partnerships; course alignment with industry demands would be highlighted. The scheme will also include courses such as coding, AI, robotics, electronics, IOT, 3D printing, drones, and other soft skills.

- Among the 7 priorities marked in the budget, priority 6- Youth Power, focuses on building solid foundations and upskilling the youth of India.
- To fully leverage its demographic dividend, strategic investments in the youth are critical. Budget 2023 reiterates the commitment to the holistic development of the “**Amrit Peedhi**” envisaged in the National Education Policy. A well-educated youth population can drive economic growth by providing a large pool of skilled and productive workers, entrepreneurs, and innovators.
- With the beginning of **Industry 4.0**, characterised by the trend towards automation and data exchange in manufacturing technologies, it is important to create demand-based jobs that can adapt to this new reality. The budget recognises this and aims to create a labour market that is both productive and inclusive by focusing on creating jobs that are aligned with the demands of the market.
- Creating demand-based jobs can also help to stimulate entrepreneurship and innovation. When there is a demand for a particular product or service, individuals with the necessary skills and expertise may start their own businesses to meet that demand. This can lead to the creation of new companies and industries, further boosting the economy.

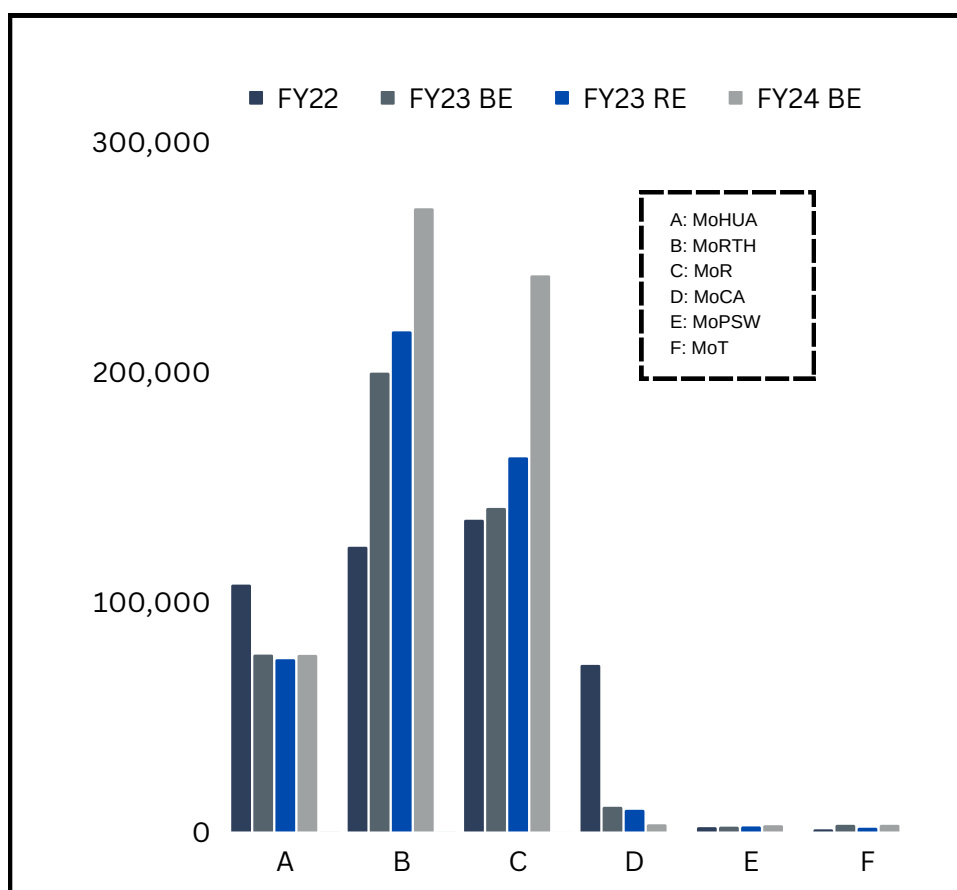


INFRA- STRUCTURE AND LOGISTICS

HIGHLIGHTS

- The Capital expenditure for 2023-24 has been ramped up to **Rs 10 lakh crores**, with **effective cap-ex to Rs 13.7 lakh crores**.
- The **outlay in this budget for Railways is nine times** the outlay of 2013-14, and stands at **Rs 2.4 lakh crores**.
- The **50-year interest-free loans to states shall be extended by a year to spur investments in infrastructure, at an outlay of Rs 1.3 lakh crores**, and has to be spent within 2023-24. Most of this shall be at states' discretion, but a part shall be conditional on states actually increasing their cap-ex. Parts of the outlay will also be linked to the following purposes:
 - Scrapping old government vehicles,
 - Financing reforms in local bodies, making them creditworthy for municipal bonds,
 - Housing for police personnel above or as part of police stations,
 - Children and adolescents' libraries and digital infrastructure, and
 - State share of capital expenditure of central schemes.
- The **Infrastructure Finance Secretariat** shall be set up to assist all stakeholders to spur private investment in railways, roads and urban infrastructure. The **Harmonized Master List of Infrastructure** shall be reviewed and revised by an expert committee for classification and suitable financing.
- **100 critical transport infrastructure projects for last and first mile connectivity** are to be undertaken for ports, coal, steel, and food grains with an investment outlay of Rs 75,000 crores, including Rs 15,000 crores from private sources. Also, **50 additional airports, heliports, water aerodromes, and advanced landing sites** will be revived to improve regional air connectivity.

- The capital expenditure allotted has been the highest till now, and has seen **37.4%** increase compared to the revised estimates of 2022-23. The increment in the cap-ex is due to an increase in capital outlay on transport (railways, roadways, bridges, etc) which is an increase of **Rs 1,28,863 crores (36.1% increase)**. This increased outlay is **in line with the Gati Shakti National Master Plan** which was a focus in the Budget 2022, and the National Logistics Policy.



Infrastructure outlays: Comparative representation

- India spends **13-14% of GDP on supply chain and logistics** whereas the US and China spend **6-7%**. This increased outlay shall help India reduce its costs in the sector.
- When we look at infrastructure, we also need to look at disinvestment. In 2022-23 the government is estimated to **meet 77% of its disinvestment targets** (Rs 50000 crores against target of Rs 65000 crores). However, the **target has been reduced for 2023-24, to Rs 51,000 crores.**
- Looking at the utility of special interest free loans to states in the last year, the revised estimates of 2022-23 show that **it stands at 76% of the budgeted Rs 1 lakh crores.** This year, the government has increased the budgeted amount to **Rs 1.3 lakh** crores. But as we know, a part of these is going to be conditional.
- The **Infrastructure Finance Secretariat** aims to rework the existing PPP policy and bring it in tune with the current government's infrastructure push. It is also said to delve into various infra-financing issues like deepening municipal bond markets, real estate and infrastructure investment trusts (**REITs and InvITs**), etc.



TOURISM

HIGHLIGHTS

- Promotion of tourism is proposed to be taken up on '**Mission Mode**' with the active participation of states, convergence of government programs and with **Public Private Partnership**.
- The government will promote unique conservation values through the '**Amrit Dharohar Scheme**', which will be implemented over the next 3 years for optimal use of ecotourism opportunities and income generation for local communities.
- **50 destinations** will be selected for development in an integrated and innovative manner. Aspects such as **physical and virtual connectivity, tourist guides, high standards for food streets and tourists' security** will be focused upon for domestic and foreign tourists.
- States will be encouraged to set up '**Unity Malls**' in state capitals/ finance capital/ most prominent tourism centres for promotion and sale of their own **ODOPs (one district, one product)**, GI products and other handicraft products, and for providing space for such products of all other states.

- To meet the fund requirements for various schemes implemented by the Ministry of Tourism during 2022-23, the ministry has been provided with an **allocation of Rs 2400 crores in the Union Budget 2023-24** which resembles the allocated fund of Rs 2400 crores for the Ministry of Tourism in the Union Budget 2022-23; however the revised estimate for the year 2022-23 stood at **Rs 1,343.13 crores**.
- Out of the total allocation, an outlay of **Rs 1,742 crores is for development of tourism infrastructure**, while **Rs 242 crores is earmarked for promotion and branding**. The Ministry of Culture gets **Rs 3399.65 crores**, showing a considerable increase.
- An amount of **Rs 250 crores has been allocated for the PRASAD scheme** that focuses on developing and identifying pilgrimage sites across India for enriching the religious tourism experience.
- The **Champion Service Sector Scheme** has also been provided an allocation of **Rs 196.22 crores**, whereas Rs 105 crores allocation has been made for Human Resource development and capacity building to meet the requirement of trained manpower in the sector.
- The Ministry has earmarked an allocation of **Rs 229 crores for tourism infrastructure, promotion of North Eastern States** under this year's budget allocation. Additionally, the **DoNER budget has more than doubled to Rs 5,892 crores** including the **PM-DEVINE** allocation increasing 5 times to Rs 2,200 crores.
- Under the allotment, **Rs 1102.83 crores has been allocated to the ASI** for protection, prevention and conservation of the Centrally Protected Monuments and Sites.



ENVIRONMENT

HIGHLIGHTS

- This section of the Budget builds on the Hon'ble Prime Minister's vision for "LiFE", or Lifestyle for Environment, to spur a movement of environmentally conscious lifestyle and the target of net-zero carbon emission by 2070.
- **Green Hydrogen Mission:** The Green Hydrogen Mission was given an outlay of Rs 19,700 crores to facilitate the transition of the economy to low carbon intensity.
- **Energy Transition:** The Budget provides Rs 35,000 crores for priority capital investments towards energy transition and net zero objectives, and energy security by Ministry of Petroleum & Natural Gas.
- **Energy Storage Projects:** To steer the economy on the sustainable development path, Battery Energy Storage Systems with capacity of 4,000 MWH will be supported with Viability Gap Funding. A detailed framework for Pumped Storage Projects will also be formulated.
- **Renewable Energy Evacuation:** The inter-state transmission system for evacuation and grid integration of 13 GW renewable energy from Ladakh will be constructed with investment of Rs 20,700 crores including central support of Rs 8,300 crores.
- **Green Credit Programme:** For encouraging behavioural change, a Green Credit Programme will be notified under the Environment (Protection) Act to incentivize environmentally sustainable and responsive actions by citizens.
- **PM-PRANAM:** "PM Programme for Restoration, Awareness, Nourishment and Amelioration of Mother Earth" will be launched to incentivize States and Union Territories to promote alternative fertilizers and balanced use of chemical fertilizers.

- **GOBARdhan scheme:** 500 new 'waste to wealth' plants under **GOBARdhan (Galvanizing Organic Bio-Agro Resources Dhan)** scheme will be established for promoting a circular economy. These will include 200 compressed biogas (CBG) plants, including 75 plants in urban areas, and 300 community or cluster-based plants at total investment of Rs 10,000 crores. In due course, a 5 per cent CBG mandate will be introduced for all organizations marketing natural and bio gas. For collection of bio-mass and distribution of bio-manure, appropriate fiscal support will be provided.
- **Bhartiya Prakritik Kheti Bio-Input Resource Centres:** Over the next 3 years, 1 crore farmers will be empowered to adopt natural farming. For this purpose, 10,000 Bio-Input Resource Centres will be set up.
- **MISHTI:** Building on India's success in afforestation, '**Mangrove Initiative for Shoreline Habitats & Tangible Incomes**', **MISHTI**, will be taken up for mangrove plantation along the coastline and on salt pan lands, wherever feasible, through convergence between MGNREGS, CAMPA Fund and other sources.
- **Amrit Dharohar:** A scheme that will be implemented over the next three years to encourage optimal use of wetlands, and enhance bio-diversity, carbon stock, eco-tourism opportunities and income generation for local communities.
- **Coastal Shipping:** Coastal shipping will be promoted as the energy-efficient and lower-cost mode of transport, both for passengers and freight.
- **Vehicle Replacement:** Replacing old polluting vehicles is an important part of greening our economy. In furtherance of the vehicle scrapping policy mentioned in Budget 2021-22, funds have been allocated to scrap old vehicles of 20 the Central Government. States will also be supported in replacing old vehicles and ambulances

- The Ministry of Environment, Forest, and Climate Change has been allotted a budget of **INR 3,079.40 crores** by the centre, which is a 24% increase compared to the previous budget of INR 2,478.00 crores. Additionally, the current budget has seen a 15.6% boost in Central Sector Schemes/Projects, going from INR 820.27 crores in the last budget to INR 948.76 crores in the current budget.
- The shift to clean energy presents a huge economic opportunity. The allocation of **INR 34,000 crores** will aid India in achieving its goal of becoming a leading nation in the production of renewable batteries and green hydrogen. By 2030, such low-carbon technologies will have the potential to generate a market worth up to \$80 billion in India.
- Coal dependency is a big problem for India. Our annual CO2 emissions have risen to become the third highest. By diversifying our energy sources through initiatives like Green Hydrogen Mission and GOBARdhan, we can create a clean, reliable, and secure energy future.
- The government is also focusing on other important areas such as electric vehicles, rail transportation, sustainable urbanisation, and a circular economy. Eliminating custom duties on components required to make lithium-ion batteries may reduce the cost of electric vehicles, promoting wider adoption.
- Climate change is a complex and global problem that affects various sectors, including energy, agriculture, transportation, and urban planning, and therefore, it requires a comprehensive approach. The budget for this financial year has addressed a diverse set of climate change-related challenges.

- This budget provides green energy solutions that support supply-side interventions while also driving demand creation for clean energy
- There is an effort to promote environmentally conscious farming practices via **PM-PRANAM and Prakritik Kheti Bio-Input Resource Centres**. By adopting sustainable agriculture, farmers can produce crops and raise livestock in ways that conserve natural resources, protect the environment, and promote long-term productivity.
- With increasing participation of women in the primary sector, a gender “aware” environment budget that promotes equitable gains for both men and women can further the cause of both sustainable development and gender equality.
- The allocation of **INR 20,700 crores** to evacuate and integrate 13 GW of renewable energy from Ladakh is a crucial step towards harnessing the state's untapped renewable energy potential and could spur economic development in the region.
- Even though there is an increase in funding to the **National Clean Air Programme (NCAP)**, the budget lacks any mention of crop-residue management and water pollution.
- The government has made significant efforts and investments towards multiple ends, as showcased in the budget. However, we still have a long way to go. According to the **International Solar Alliance (ISA)**, USD 10 trillion would be needed for India to achieve the net zero target by 2070.



MSME & MANUFACTURING

HIGHLIGHTS

- **PM Vishwakarma Kaushal Samman (PM VIKAS)** has been launched to support craftspeople and artisans with a package of assistance conceptualised to improve the quality, scale, and reach of products, and integrate with MSME value chain.
- **National Finance Registry** is proposed to be set up to act as a central repository of financial and subsidiary information.
- **Rs 9000 crores infusion** will be put into the corpus to revamp the **Credit Guarantee Scheme for MSMEs**. This shall ensure the free flow of credit and **enable additional collateral free credit of Rs 2 lakh crore to MSMEs** while the cost of credit will be reduced by 1%.
- An **entity DigiLocker** will be set up for MSMEs, large business and charitable trusts. This shall make storing and sharing documents online secure.
- **Vivad se Vishwas I**: In case of failure by MSMEs to execute contracts during the COVID period, 95 per cent of the forfeited amount relating to bid or performance security, will be returned to them by government and government undertakings.

- The budget estimate allocation for MSME ministry has seen a **marginal increase of 3.3% from Rs 21,422 crores (BE 2022) to Rs 22,137.95 crores (BE 2023).**
- The revamped Rs 9,000 crores shall **add up to the 5 lakh crore that has been sanctioned for the scheme since its launch.** Data shows that out of the Rs 5 lakh crores allocation, **71% has been sanctioned through 1.19 crore loans, and 57% has been disbursed.**
- The setting up of the National Financial Information Registry shall allow **easier access of MSMEs to loans by creating an efficient information system.**
- In order to ensure MSMEs receive payments on time, the Budget has proposed that **deduction for expenditure incurred on payments made to MSMEs will be allowed for buyers only when the payment is actually made.** This means buyers cannot claim deduction without paying the MSMEs, according to FISME and CODISSIA.



HIGHLIGHTS

- **Sickle Cell Anaemia Elimination Mission.** A Mission to eliminate Sickle Cell Anaemia by 2047 will be launched. It will focus on awareness creation, universal screening of 7 crore people in the age group of 0-40 years in affected tribal areas, and counselling through collaborative efforts of central ministries and state governments.
- Facilities in select ICMR Labs will be made available for **research by public and private medical college faculty and private sector R&D teams** to encourage collaborative research and innovation.
- A **new programme to promote research and innovation in pharmaceuticals will be taken up through centres of excellence** to encourage the industry to invest in research and development in specific priority areas.
- **Dedicated multidisciplinary courses for medical devices** will be supported in existing institutions to ensure the availability of skilled manpower for futuristic medical technologies, high-end manufacturing and research.

- The health sector has seen a **13 percent hike** in allocation from the previous budget allocation of **Rs 79,145 crores**. The Department of Health and Family Welfare has received Rs 86,175 crores out of the overall allocation of Rs 89,155 crores for the health sector, and the Department of Health Research has received Rs 2,980 crores.
- The National Health Mission's budget allocation has increased from **Rs 28,974.29 crores in 2022–2023 to Rs 29,085.26 crore in 2023–2024** which shows only a 0.8% increase in allocation. This policy intervention can be a hurdle while curbing communicable diseases and during the expansion of primary health services to cater to the population. Hence, there is a need to increase allocation for the concerned area.
- **Pradhan Mantri Jan Arogya Yojna (PM-JAY)** budget allocation has increased from Rs 6,412 crores to Rs 7,200 crores whereas the **National Digital Health Mission (NHM)** has received an increase in funding from Rs 140 crores to Rs 341.02 crores. The total allocation for the **Ministry of AYUSH** has also been enhanced by 20 percent and the allotment for the National Tele Mental Health Programme has increased from Rs 121 crores to Rs133.73 crores.
- Budgetary support for autonomous entities increased from **Rs 10,348.17crores to Rs 17,322.55 crores** between 2022 and 2023. The funding for **AIIMS, New Delhi**, among the autonomous entities, has been decreased from **Rs 4,400.24 crores to Rs 4,134.67 crores**. The amount allotted to the **ICMR** has gone up from **Rs 2,116.73 crorse to Rs 2,359.58 crores**.
- Given the deaths linked to cough syrup in Gambia and Uzbekistan, both of which purchased the medications from India, there is an urgent need to reform the drug regulatory system. Spending on bolstering state drug regulatory agencies, however, has decreased from **Rs 100 crores in 2022-2023 to Rs 72 crores in 2023-2024**.

A large, light gray, stylized graphic of a plant with three leaves and a central stem, positioned behind the word 'AGRICULTURE'. Below the plant, there are several horizontal and curved lines, also in light gray, suggesting a field or furrows in the soil.

AGRICULTURE

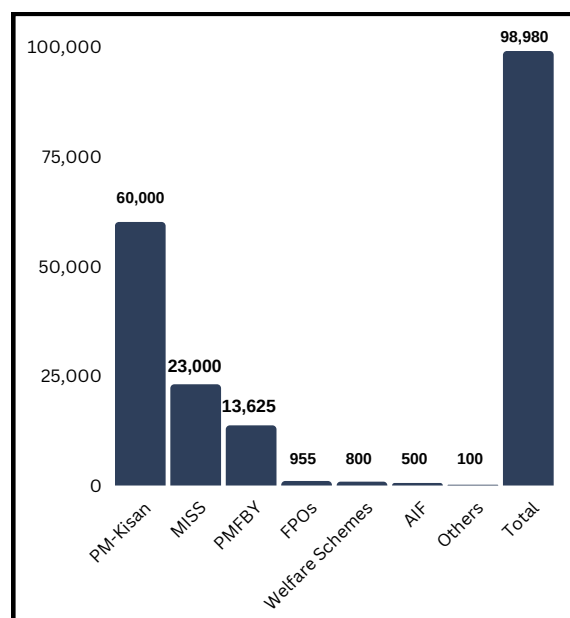
HIGHLIGHTS

- To ensure food and nutritional security, from 1 January 2023, a scheme was launched to supply free food grain for Antyodaya and priority households under **PMGKAY** for the next year. The **entire expenditure of Rs 2 lakh crores will be borne by the centre.**
- **Agricultural Accelerator Fund** will be set up to encourage agri-startups by young entrepreneurs in rural areas. It will bring in modern and affordable technologies to transform agricultural practices, increase productivity and profitability.
- To enhance the productivity of extra long staple cotton, a **cluster-based and value chain approach through PPP model will be adopted.** This will promote collaboration between farmers, state, and industry for input supplies, extension services, and market linkages.
- **Atmanirbhar Clean Plant Programme** has also been announced to boost the availability of disease-free, quality planting material for high-value horticultural crops at an outlay of **2,200 Crores.**
- The **Indian Institute of Millet Research, Hyderabad** will be supported as the **Centre of Excellence** for sharing best practices, research, and technologies at the international level.
- The **Agricultural Credit Target** will be increased to **20 lakh crores** with a focus on animal husbandry, dairy, and fisheries. A new sub-scheme of **PM Matsya Sampada Yojana, with targeted investment of Rs. 6,000 crores,** will be launched to further enable activities of fishermen, fish vendors and micro and small entrepreneurs, improve value chain efficiency, and expand the market.

- The allocation to the Ministry of Agriculture and Farmers Welfare has reduced to **Rs 1,25,035.79 crores from Rs 1,32,513.62 crores**, a reduction of 5.6% from last year's budget allocation. The Ministry comprises two departments - the Department of Agriculture and Farmers Welfare, and the Department of Agricultural Research and Education. The former saw a reduction of 6.8% to **Rs. 1,15,531,79 crores**, while the latter saw an increase of 11.6% to **Rs. 9,504 crores** in the budget estimates.

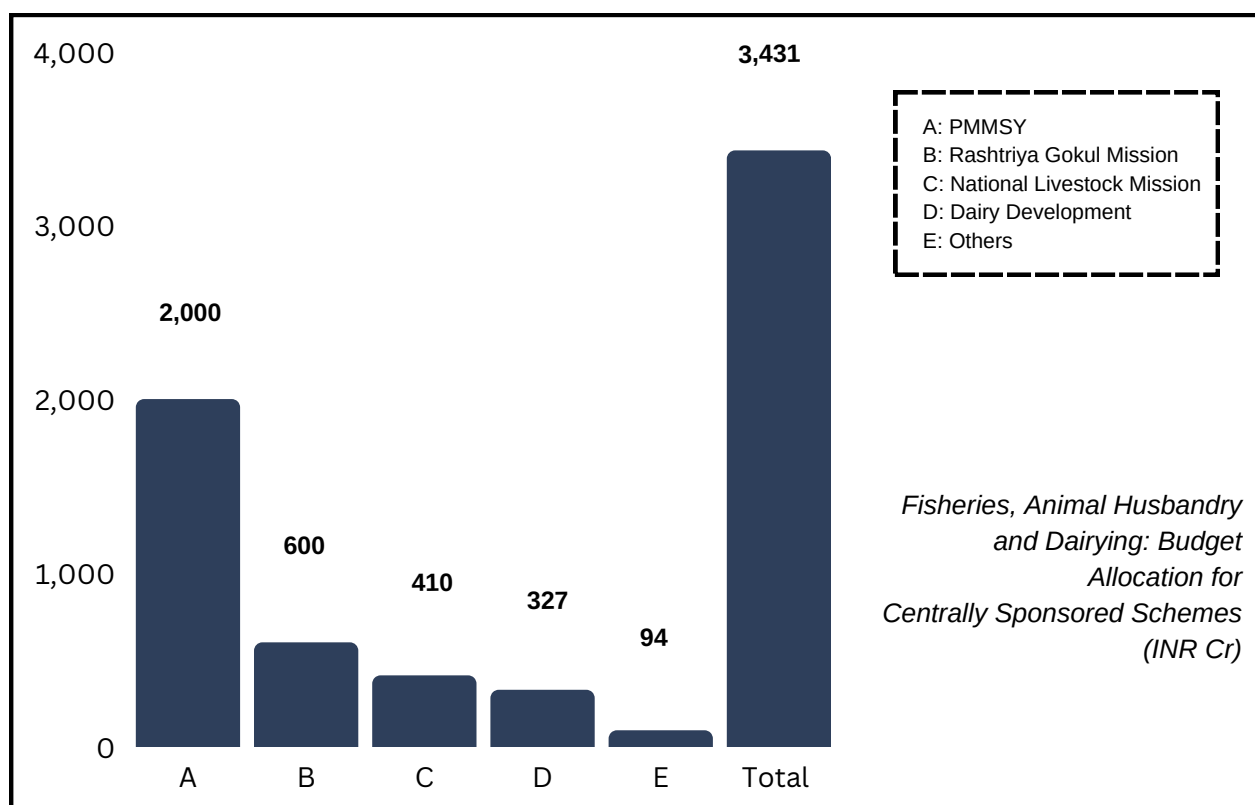
- Overall, there is a shift from subsidies toward investment. Last year, the revised estimates for food and fertilizer subsidies far exceeded their respective budgetary allocation. When compared to the revised estimates, this year, food subsidy has been reduced by over 31% and fertilizer subsidy by over 22%

- The money saved has been redirected towards other welfare projects such as rural housing and supply of piped water in rural areas, serving the same population that were being served by the subsidies. These investments offer a more long-term and permanent solution that will empower the rural population. The money saved on food subsidies have been used for the new **PM-GKAY**, through which PDS supplies like rice and wheat have been made free.



Agri: Budget Allocation for Central Sector Schemes (INR Cr)

- The budgetary allocation of PM-KISAN has been reduced by about 13%, given a sizeable reduction in the number of beneficiaries. This scheme is the largest scheme of this Ministry. **The Modified Interest Subvention Scheme (MISS)** saw an increase in its allocation that will provide farmers with small loans to support their allied activities like husbandry. There has also been an enhanced allocation for **Farmer Producer Organizations (FPOs)** and the **Agriculture Infrastructure Fund (AIF)** to support the announcements that the Finance Minister made during her Budget address. The announced digital public infrastructure, Agricultural Accelerator Fund, Atma Nirbhar Clean Plant Programme, and a rise in agricultural credit target are helpful efforts, however, not enough.
- There has been no tectonic shift in this year's budget that would enable the farming community to reach closer to the goal of doubling their incomes, as announced by the Hon'ble Prime Minister. Moreover, the increase in agriculture R&D could have been more, considering the looming climate change impacts on agriculture and the population involved in it.



A stylized world map in light gray, centered behind the title. Overlaid on the map are various icons: a city skyline with skyscrapers on the left, wind turbines on the right, and solar panels at the bottom right. The title 'URBAN & RURAL DEVELOPMENT' is written in a bold, dark blue, sans-serif font, centered over the map.

URBAN & RURAL DEVELOPMENT

HIGHLIGHTS

- To improve the socio-economic conditions of the particularly vulnerable tribal groups (PVTGs), the **PM PVTG Development Mission** will be launched worth Rs 15,000 crores.
- **Sustainable cities for tomorrow:** Through property tax governance reforms and ring fencing user charges on urban infrastructure, cities will be incentivised to improve their credit worthiness.
- **Urban Infrastructure Development Fund (UIDF)** will be established through use of priority sector lending shortfall. This fund will be utilised by public agencies to create urban infrastructure in tier 2 and tier 3 cities.
- **GOBARdhan scheme:** 500 new 'waste to health plants' to be established under GOBARdhan scheme in order to promote a circular economy. Under this broad ambit, 200 compressed biogas (CBG) plants, including 75 plants in urban areas will be established. In due course, a 5 per cent CBG mandate will be introduced for all organisations marketing natural and biogas.
- Income of authorities, boards and commissions set up by statutes of the Union or State for the purpose of housing, development of cities, towns and villages, and regulating, or regulating and developing an activity or matter, is proposed to be **exempted from income tax.**

- With respect to municipal bonds, an RBI report showed that between 2016-17 and 2020-21, **nine municipal bodies raised around Rs 38.40 billion**. Through property tax reforms in the sector, this amount is expected to go up significantly. Along with that, **ring fencing of user charges on urban infrastructure** can allow more directed and purpose-specific usage of the revenue generated by the Urban local bodies.
- If we look at the **GOBARdhan scheme** launched in 2018, currently **583 plants** are functional, covering **152 districts** in the country.
- The total installed capacity of biogas is **19,737 cubic metres** and the installed capacity of Compressed Biogas (CBG) is **311,086 kg**.
- However, we see that States like **Haryana and Gujarat have realised roughly 2% of the total Bio-CNG generation potential**, whereas it is even lesser in case of Maharashtra and Punjab.
- All scheduled commercial banks are required to undertake priority sector lending. RBI mandates PSL to account for at least 40% of a bank's **Adjusted Net Bank Credit (ANBC)** or credit equivalent of Off-Balance sheet exposure whichever is higher. The **setting up of UIDF is like killing two birds with one stone**. While creation of UIDF provides banks another medium of meeting their priority sector lending shortfalls, it also provides an additional corpus of funds for urban investment. The success of RIDF is an example of the potential of such a fund.

Three stylized female figures in light gray, holding hands in a row. They are positioned behind the main title text.

WOMEN DEVELOPMENT

HIGHLIGHTS

- The budget has launched a new small savings scheme for women- '**Mahila Samman Bachat Patra**', offering a **fixed interest rate of 7.5%** for the two year period up to March 2025.
- **Deendayal Antyodaya Yojana-National Rural Livelihoods Mission (DAY-NRLM)** has mobilised rural women into **81 lakh Self Help Groups** which will allow members to reach the next stage of economic empowerment through the formation of large producer enterprises.
- **Spending on Women and Children:** Contrasting expenditure trends for child and gender budgets, where spending on children as a percentage of Gross Domestic Product (GDP) is declining against the increase in spending on women, poses a serious fiscal concern. This is mainly an effect of a decline in total expenditure (as a percentage of GDP).

PAPERS

A defensive field after taking a hat-trick: Budget 2023 and Millets

Arjun Kumar Singh

As foreign delegates flock to India for the various G20 events, they have a pleasant surprise - millets. Whether it is the lunch or gift hampers, the hosts are going the extra mile to ensure that these coarse grains are imprinted on the minds of the delegates. One of the areas that the Modi Government has toiled hard and been extremely artful in is agriculture, specifically millets. The current government, building on the previously established framework of millet production and procurement has upped the ante with a three-pronged approach focusing on domestic awareness and production, along with global awareness & diplomacy. However, a fundamental rule of cricket is to keep the aggression consistently high when three consecutive wickets of the opposition have been taken. The Government in power had an opportunity to more aggressively persevere with its incredible millet campaign during the Budget presented earlier this month, but it has foregone the setting up of an aggressive field to aid its bowlers.

The first two wickets fell when this Government declared 2018 as the 'National Year of Millets', prompting an increased focus on these crops. Acknowledging the 'taboo' that revolves around millets as being a poor man's food, the government came forward with one of its strengths - narratives - and renamed the coarse grains as 'Nutri Cereals'. A recent study has shown that among millet entrepreneurs, "the biggest challenge in the current Indian market" is the limited awareness among not only common people but also among dieticians and nutritionists. There are also strong apprehensions about even trying these products, with many equating millets to "cattle feed" and attaching connotations of inferiority to it. It is true that there is a growing interest amongst the urban, young, and health-conscious citizens of India, but these still appear to be small and scattered pockets. Recognizing the challenges to domestic millet demand, the Government undertook special efforts throughout 2018 to organize exhibitions, workshops, and other events to increase awareness around these cereals. In 2018, the National Food Security Mission - Nutri-Cereals was implemented in over 200 districts for "area expansion and productivity enhancement, restoring soil fertility and productivity at the individual farm

level and enhancing farm level economy to restore confidence amongst the farmers". There were also some tangible achievements for the government that year in millet production. In 2018-19, though the production of millets decreased by about 8% from 46.97 million tonnes to 43.06 million tonnes, the yield of 1944 kg/hectare was hitherto the highest ever recorded. The 'National Year of Millets 2018' was aimed at supporting the livelihoods of small and marginal farmers as well as promoting the production of these crops. At a time when problems such as land fragmentation continue to plague Indian agriculture, and new issues of climate change emerge, small and marginal farmers remain the most affected. Millets appear as a plausible solution in such a landscape.

The efforts of 2018 should also be viewed with respect to the steps taken before it, wherein the Government has continued to move forward with intentionality. For instance, in July 2017, the decision to distribute millets under the Public Distribution Security (PDS) was taken "to improve nutritional security". The issue of nutrition is relevant as India faces a double-edged sword with growing obesity as well as increasing undernourishment. For adult men and women, obesity has increased to 22.9% and 24%, respectively, while India's rank in the Global Hunger Index 2022 is a cause of concern with the proportion of the population that is undernourished rising slightly to 16.3%. With the nutritional value of millets scientifically established, it can also prove a potent tool to further the state's public health goals. Another example of the Modi Government's positive intentions lies in its push for the 'Indianness' of products and services, as evidenced by its efforts on 'Vocal for Local' and 'One District One Product'. While tough to quantify, these efforts might have also aided in increasing awareness around millets, as part of the larger call for looking inwards to indigenous roots.

The third wicket came as a major diplomatic win of the Modi Government when India's proposal to declare 2023 as the 'International Year of Millets' was adopted by the 75th Session of the UN General Assembly in March 2021 and was also endorsed by the Food and Agriculture Organization (FAO). India's efforts in spreading global awareness through both, the International Year of Millets and G20, are highly encouraging. A more conducive global market coupled with increased domestic production is akin to inserting several spinners in the playing eleven on seeing a green pitch.

However, as every bowler knows, the appropriate field placement is instrumental in

capitalizing on favorable conditions. The Union Government had the chance to reap the gains of its hard work through the Budget 2023, yet it chose to be defensive. More has to be done in not only establishing outright Indian domination in millet exports globally but also in solving some structural challenges. Providing more incentives to farmers to grow millets through tools like the Minimum Support Price (MSP), and investing in affordable and accessible post-harvest processing and storage infrastructure, inter alia, can reduce the costs of production and thereby, strengthen the affordability of these coarse grains. It will eliminate the existing asymmetry, wherein consumers complain of millet products being expensive and farmers complain of low domestic demand. These solutions, forming an attacking field, will support the Indian millet industry in attaining the top position globally and consolidating its position. It is also a future-looking policy issue, given the questions being raised around rice production in a climate-affected India. While the millet farmers would have welcomed the Union Finance Minister's mention of 'Shree Anna' in her speech, they would have left wanting more in this regime's last full budget. The millet revolution is a test match, and there will be more such opportunities, but none must be missed moving forward.

References

- (2018, December 26). *Year End Review 2018 Ministry of Agriculture, Cooperation and Farmers Welfare*. Retrieved February 14, 2023, from <https://pib.gov.in/newsite/PrintRelease.aspx?relid=186796>.
- Directorate of Economics and Statistics, *Agricultural Statistics at a Glance - 2021 (2022)*. Ministry of Agriculture and Farmers' Welfare, Government of India. Retrieved February 14, 2023, from [https://eands.dacnet.nic.in/PDF/Agricultural%20Statistics%20at%20a%20Glance%20-%202021%20\(English%20version\).pdf](https://eands.dacnet.nic.in/PDF/Agricultural%20Statistics%20at%20a%20Glance%20-%202021%20(English%20version).pdf).
- FAO. (n.d.). FAOStat. Retrieved February 14, 2023, from https://www.fao.org/faostat/en/#rankings/countries_by_commodity.
- Global Hunger Index (n.d.). India. Retrieved February 14, 2023, from <https://www.globalhungerindex.org/india.html>.

- Millet Production. (2022, February 8). *Press Information Bureau*. Retrieved February 14, 2023, from <https://pib.gov.in/PressReleasePage.aspx?PRID=1796559>.
- Ministry of Health and Family Welfare, Compendium of Fact Sheets: India and 14 States/UTs (Phase-II), National Family Health Survey (NFHS-5) 2019-21 (n.d.). Retrieved February 14, 2023, from https://main.mohfw.gov.in/sites/default/files/NFHS-5_Phase-II_0.pdf.
- Shah, P., Dhir, A., Joshi, R., & Tripathy, N. (2023). Opportunities and challenges in food entrepreneurship: In-depth qualitative investigation of millet entrepreneurs. *Journal of Business Research*, 155(Part B). Retrieved from <https://www.sciencedirect.com/science/article/pii/S0148296322008372#b0100>.

A Road to Tribal Education Reforms: Union Budget and Beyond

Adithya M

The education system of tribal communities has undergone significant reforms. It has expanded in size and complexity and the number of schools and teachers has grown. The school administration system in the communities has also seen a great deal of stress and strain due to the expansion. The 1986 National Policy on Education and the subsequent revision in 1992, both called for a complete revamp of the country's system for managing schools. The National Education Policy 2020 also presents recommendations for reorganising and revitalising the present system.

In order to operationalise and recognise these recommendations and to bridge the gap in middle and high level education to tribal students in the country's remote tribal territories, Ekalavya Model Residential Schools were established in 1997–1998. Following the provisions of Article 275(1) of the Constitution, the Ekalavya Model Residential School (EMRS) scheme promotes the creation and operation of high-quality residential schools for ST students in remote tribal areas, encompassing classes VI to XII. EMRSs begin with Class VI, with appropriate provisions for first-generation students and primitive tribal groups. Education is treated as a free good under this scheme. Each class is mandated to have 60 students (30 boys and 30 girls), and a school's maximum sanctioned enrollment is 480. The Ministry of Tribal Affairs (MoTA) encourages States and UTs to establish these residential schools as long as they can guarantee the efficient management of the schools, including timely funding, hiring the necessary number of teachers, providing medical facilities for both students and staff, providing wholesome and hygienic food, and generally fostering a happy and healthy environment. However, the functioning of these institutions has come under severe criticism due to their decline in functioning depreciated by certain factors. About 1,13,000 pupils are enrolled, out of whom over 57,000 are girls, and about 400 EMRSs have started operating. According to a report published in The Hindu, the Ministry of Tribal Affairs has so far been unable to address the teacher shortage, experienced across 378 of these schools that are currently operational, despite authorising a record number of Ekalavya Model Residential Schools

for tribal students since 2014 and establishing the National Education Society for Tribal Students (NESTS) to manage these schools in 2018. According to the Ministry's data, approximately 4,000 instructors have been hired across the 378 schools, of whom almost 70% are either contractual teachers or on deputation from state government schools. In order to address the challenges of solving the current gaps, the present budget presented comprehensive recommendations to tackle the current issues pervading the system.

In order to reduce current gaps in educational access, which impact tribal children's retention and achievement, a particular focus has been made on providing additional facilities in the form of diverse inputs for the education of tribal children. It is necessary to combat the high dropout rate in general and that of tribal children through programmes that are advantageous to them. The studies on the present system give a varied reality, deviant from the current outcomes. In Orissa, Biswal (1991) discovered that fewer girls than boys attended school in the tribal areas. It was found that most of the teachers employed by these schools were non-tribal and less competent. Surprisingly, the study discovered that the higher education level had a higher dropout rate than the lower level. Discouraging trends in the policy realm were also put forward through the study (Revathi & Geetha), where they point out the insufficiency of progress in tribal education. The study itself calls for reforms rooted in quality and quantity along with the culture and ecosystem of tribes, as their policy intervention criteria.

The current union budget calls for policy interventions to reduce the gaps in tribal education through different means. The Government would hire 38,800 teachers and support staff for the Eklavya Model Residential Schools (EMRS) for tribal kids across the nation over the next three years due to the challenges faced by the present system in terms of teacher shortage. Rs. 5,943 crores has been allocated to Eklavya Model Residential Schools (EMRS) for rapid construction to improve the infrastructure facilities. At a unit cost of Rs. 38 crores in geographically plain areas and Rs. 48 crores in geographically hilly areas, new EMRS schools are being built. Since creating a new Central Sector EMRS Scheme in 2019, 402 new EMRSs have been approved in blocks with 50% or more ST population, and 740 Eklavya Model Residential Schools are planned. This intervention would benefit around 3.5 lakh tribal students. According to the reports by officials, the SESTs will be eliminated once the new management structure is in place, allowing the regional NESTS offices to take over the direct supervision of the

schools on the ground. This structural change can also prevent institutional delays empowering the NESTS for administrative interventions. Over the years, the literacy rate for STs has increased from 59% in 2011 to 71.6%, according to the Periodic Labour Force Survey (PLFS) report, narrowing the gap between overall and ST literacy from 14% to 7.5% between 2011 and 2021. Gross Enrolment Ratio (GER) at the upper Primary level increased from 91.3% in 2013–14 to 98% in 2021–22; GER for ST students at the secondary level (IX–X) increased from 70.2% in 2013–14 to 78.1% in 2021–22; GER for ST students at the senior secondary level (XI–XII) went from 35.4% in 2013–14 to 52.0% in 2021–22; GER for ST students at higher education level increased from 13.7% in 2014–15 (2020-21). The road to empowerment and inclusion lies in recognising the existing gaps. However, more comprehensive schemes are needed to improve infrastructure facilities, namely, an incentive system for teaching and non-teaching staff, student friendly accommodations and study environment, critical pedagogical interventions based on contextual understanding for students, and monitoring mechanisms for measuring the progress and outcomes.

References

- Lakshman, A. (2023, February 1). Budget 2023 | 38,800 teachers, support staff to be recruited for Eklavya schools. *Thehindu.Com*. Retrieved February 12, 2023, from <https://www.thehindu.com/business/budget/centre-will-recruit-38800-teachers-support-staff-for-emrss-in-next-three-years-fm-nirmala-sitharaman/article66457992.ece>
- A. (2023, February 1). Centre to hire 38,800 teachers for Eklavya Model Residential Schools. *ThePrint*. <https://theprint.in/economy/centre-to-hire-38800-teachers-for-eklavya-model-residential-schools/1348627/>
- PIB. (n.d.). Out of total sanctioned 690 EMRSs, 401 EMRSs are functional; Recurring cost of Rs.1.09Lakh per student per year is given to schools towards running and managing the school. *Pib.Gov.In*. <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1896750>

- Singh, B. (2023, February 1). *Budget proposes to strengthen human resources in 740 Eklavya schools, Northeast India to benefit.* The Economic Times. <https://economictimes.indiatimes.com/news/india/budget-proposes-to-strengthen-human-resources-in-740-eklavya-schools-northeast-india-to-benefit/articleshow/97530587.cms?from=mdr>
- *The Status of Tribal Education and NEP, 2020 | National Commission for Scheduled Tribes.* (n.d.). <https://ncst.nic.in/content/status-tribal-education-and-nep-2020>

Gati Shakti Scheme: Booster for India's Infrastructure

Arnav Jain

When a country talks about moving on the path of development, the first concern and development model that comes into the picture is the infrastructural development of a nation. Infrastructure is vital in displaying a powerful picture of a nation to other nations. The question that arises is 'what exactly is infrastructure'? It is often regarded as the development of buildings, roads, bridges and so on. Is this all that encompasses infrastructure?

To understand infrastructure, it is essential to note that it refers to the facilities, activities and services which support the orientation and development of other sectors of the economy. These facilities, activities and services help increase the economy's overall productivity. Therefore the growth and fast pace of an economy is impossible without the presence of good infrastructure and thus, it is often also termed as 'social and economic' overhead. Dr. V.K.R.V Rao states, "The link between infrastructure and development is not a once-for-all affair. It is a continuous process and progress in development has to be preceded, accompanied and followed by the progress in infrastructure if we are to fulfil our declared objectives of a self-accelerating process of economic development."

India entered its 75th year of Independence in 2022 and was declared the Azadi ka Amrit Mohotsav by the Hon'ble Prime Minister of India, Shri Narendra Modi. The Prime Minister announced the Gati Shakti Scheme on the eve of the 75th independence day. It was announced as a nationwide project of Rs 100 crores to develop 'holistic infrastructure' in India. With the "Gati Shakti" concept, the government intends to develop a digital platform that will allow for 'integrated planning and coordinated execution of sixteen ministries. To ensure a coordinated and well-balanced approach, every ministry and government department will have access to information regarding the current upcoming initiatives. It will consolidate government agencies like those in charge of roads, highways and trains under one umbrella. The efficient implementation of land and logistics plans on the ground would be possible in this era of geo-satellite images and big data. It has often

been observed that when a road is constructed, other agencies often dig them up to lay down telephone lines and gas pipelines which causes a loss of infrastructure, highlighting the rampant incoordination. Thus, this scheme was introduced to bridge this gap between the government and different authorities so that the developments that are done at a later stage can be done at the primary stage of construction itself, which could help save the social as well as the economic cost of the infrastructure.

The demands of a nation, as well as the preferences of citizens, modes of transportation, and industries, are determined by factors such as population growth, urbanisation and rate of development. Similar to how the United States had to enact the "New Deal" to recover from the Great Depression, post World War II Europe had to undergo infrastructure rehabilitation, the world saw how South Korea began to prosper at an average rate of 10% per year between 1960 and 1990 as they engaged in infrastructure development. Another excellent example is China, which between 1980 and 2010 set a comparable pace, ushered in socio-economic change, and rose to become the industrial hub for the world.

By establishing a network of multi-modal transportation systems for commuters and logistics, India is taking a brave step in strengthening its "competitive index," which will substantially boost commodities and domestic manufacturing exports. Through this programme, the government attempts to streamline cumbersome application, approval and regulatory requirements. Gati Shakti is set up to prioritise connectivity and all mega infrastructures goals by 2024-2025. This would have multiple effects on the economy by preserving tax income and public funds. Increased demands for labour, building materials, and second order impacts due to enhanced reach and connectivity would be the immediate effects. An estimated multiplier effect of at least 2.5-3.5 times has been determined by studies conducted by the Reserve Bank of India and the National Institute of Public Finance and Policy. This suggests that public investment can actually "crowd in" private investments rather than "crowd out" if timed and targeted correctly and appropriately. Raising our capital spending as a percentage of the Gross Domestic Product will be essential at the federal and state levels.

Under the leadership of the Prime Minister, the country has achieved an unparalleled level of concentration on infrastructure during the past seven years. With Gati Shakti, this umbrella programme will now work on numerous infrastructure projects for different

ministries, including U.D.A.N., Bharatmala, Sagarmala, inland waterways and land ports. It also considers the upkeep of various "economic zones" like textile industries, industrial corridors, fishing clusters, electronic parks, defence corridors and agriculture ones to improve connectivity, boost the competitiveness of Indian businesses and significantly lower the cost of logistics.

The Gati Shakti scheme stands strong on six pillars :

- **COMPREHENSIVENESS:** The initiative shall encompass all current and proposed efforts of diverse Ministries and Departments within a particular centralised portal. In doing so, each Department will attain a comprehensive perspective of the activities of their counterparts, facilitating access to critical data to plan and execute projects.
- **PRIORITIZATION:** Via cross-sectoral interactions, distinct Departments will have the ability to prioritise their respective projects
- **OPTIMISATION:** Following the identification of key gaps, the National Master Plan will aid diverse ministries in their project planning endeavours. In the context of goods transportation between locations, the plan will facilitate the selection of the most optimal route based on considerations of time and cost.
- **SYNCHRONISATION:** It is common for individual Ministries and Departments to operate independently, without coordination, leading to project planning and implementation delays. However, the initiative will play a crucial role in mitigating this issue by holistically synchronising the activities of each Department and different layers of governance, thereby ensuring effective coordination of work.
- **ANALYTICAL:** The plan will consolidate all relevant data in one location and employ GIS-based spatial planning and analytical tools, inclusive of over 200 layers. By doing so, the executing agency will benefit from improved visibility and comprehension of the information.
- **DYNAMIC:** In light of the initiative, every Ministry and Department will be able to monitor, review, and visualise the progress of cross-sectoral projects via the G.I.S.

platform. The satellite imagery will provide on-ground progress updates regularly, with project progress consistently updated on the portal. These features will enable the identification of crucial interventions for enhancing and updating the master plan.

The Gati Shakti Scheme is set to revolutionise the logistics sector in India by establishing a cohesive and collaborative approach to project planning and implementation. The scheme's comprehensive approach is expected to lead to cost savings, enhanced sustainability, and better efficiency, ultimately driving India's economic growth.

References

- *PM Gati Shakti Master Plan*. (n.d.). Invest India. <https://www.investindia.gov.in/team-india-blogs/pm-gati-shakti-master-plan>
- A. (2021, March 22). *General Data Protection Regulation(GDPR) Guidelines* BYJU'S. BYJUS. <https://byjus.com/free-ias-prep/gati-shakti-master-plan-for-multi-modal-connectivity/>
- *What are the aims of Gati Shakti plan?* (2021, October 18). Road | Indian Railways | Infrastructure | Gati Shakti | Logistics. <https://www.manoramayearbook.in/india/special-articles/2021/10/18/explainer-gati-shakti-plan.html>
- Team, C. (2022b, January 21). *PM Gati Shakti: Master Plan for Multi-modal Connectivity*. ClearIAS. <https://www.clearias.com/pm-gati-shakti/>
- *PM Gati Shakti - National Master Plan for Multi-modal Connectivity*| *National Portal of India*. (n.d.). <https://www.india.gov.in/spotlight/pm-gati-shakti-national-master-plan-multi-modal-connectivity>

Rural Infrastructure Development Fund (RIDF): a Testimonial for UIDF?

Yash Gupta

The Union Budget 2022-23 was presented in the Parliament recently. This year's budget has given prime focus to investment and capital expenditure by increasing the cap-ex outlay to INR 10 lakh crore. Along with that, under one of the *Saptarishis*, Infrastructure and Investments, the finance minister made an important announcement about the establishment of an Urban Infrastructure Development Fund (UIDF) on similar lines as the Rural Infrastructure Development Fund (RIDF).

The UIDF shall be established through the use of priority sector lending shortfalls, and managed by the National Housing Bank (NHB). It shall be used to create urban infrastructure in Tier 2 and Tier 3 cities, with an expected corpus of INR 10,000 crores per annum.

Using this announcement as the backdrop, this article aims at analysing the RIDF's performance over the years with a bird's-eye-view at the potential of UIDF in the urban areas. Prior to understanding what the RIDF entails, let's take a look at Priority Sector Lending briefly.

Priority sector lending (PSL) or Directed lending is a mode of making institutional credit accessible to sectors that need it the most but are unable to avail it due to inherent problems of moral hazard and information asymmetry. Formulated in the late 1960s and formalised in the 1970s, it currently makes it mandatory for banks to lend 40% of their Adjusted Net Bank Credit (ANBC) or credit equivalent amount of Off-Balance Sheet Exposure, whichever is higher to such sectors. Presently, there are 39 sectors under PSL, with the highest share of Agriculture (18% of ANBC).

Studies have observed that the advances to the priority sector have grown over the years. However, various banks that do not function at the grass-root level were not able to meet their targets. Even if they are able to meet the aggregate target of 40%, they are

not able to comply with the sub-targets under this 40%. Over the years, various measures have been adopted to bridge this shortfall, from Priority Sector Lending certificates that allow the sale of PSL obligations, to adoption of the Co-Lending Model. One such avenue of meeting the shortfall was the establishment of the Rural Infrastructure Development Fund, an ingenious idea that aims at killing two birds with one stone. The PSL shortfall funds of banks are used to finance rural infrastructure projects under the RIDF.

The RIDF was established in 1995-96 as a corpus under the National Bank of Agriculture and Rural Development (NABARD) consisting of shortfall contributions from commercial banks. It was initially developed to provide resources for projects that remained unfinished due to paucity of resources, but later was extended to new projects as well. The corpus is announced tranche-wise (year wise) and accordingly, RBI makes state-wise allocations. According to the RBI reports, these normative allocations are based on the following parameters with their respective weights:

Sr. No	Norms/Parameters	Weightage
i.	Geographical Area of the States	15%
ii.	Rural Population	15%
iii.	Composite Infrastructure Development Index	20%
iv.	Inverse of Rural CD Ratio	15%
v.	Performance under RIDF – (Utilisation of NA, actual drawals to drawables (%))	20%
vi.	Percentage of Borrowing Power under RIDF to drawables	10%
vii.	Share of irrigation and agri related projects to total sanctions	5%

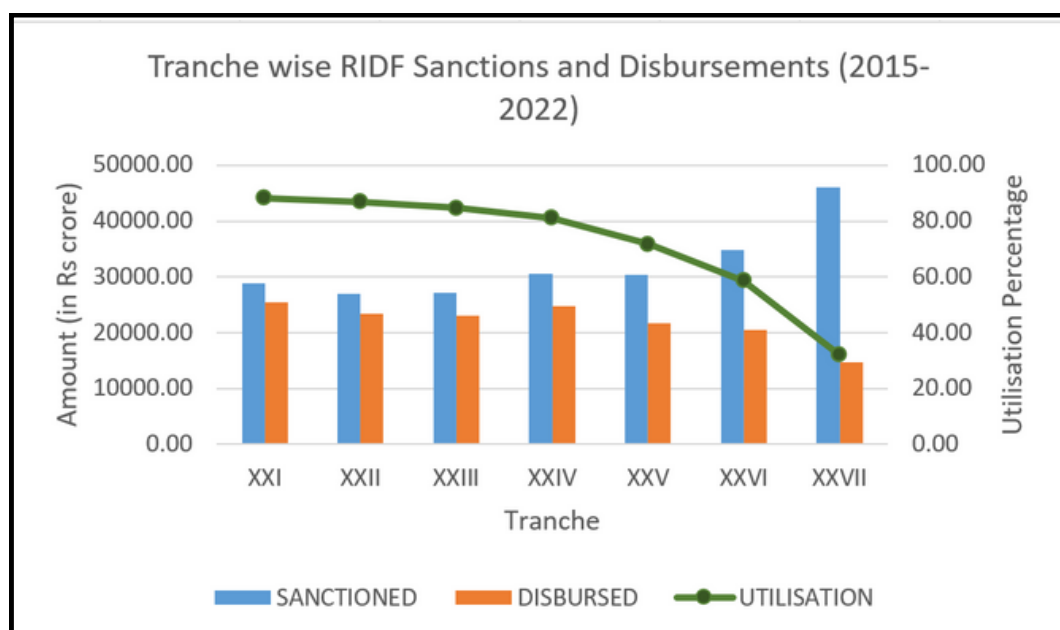
On finalising, the State governments are expected to prioritise projects and submit the detailed project reports to NABARD, after which the sanctions and disbursements are made in a phased manner. Even though initially only states were allowed to borrow through this route, currently, RIDF loans are extended to PRIs, NGOs and SHGs as well.

The repayment period of these loans is 7 years, with a grace period of 2 years at an interest rate that is pegged to RBI's Bank rate. This rate is less than the prevailing market rate to incentivise the states to borrow through RIDF rather than doing it in the free market. This interest rate is also inversely linked with the extent of PSL shortfall of the

banks. The reason for this inverse linkage is that NABARD was unable to deploy the funds as the state governments were unable to create sufficient demand for the same. And as the banks found the RIDF loans risk-free, the supply was much more than the demand, and the banks did not have any incentive to try and meet their targets, ultimately creating a disequilibrium. Hence the following rates were accepted:

Shortfall in lending to agriculture as percentage to net bank credit	Current rates (%) for RIDF VIII & XI
Less than 2% points	6 (prevailing Bank Rate(BR))
2 % to 4.99% points	5 (prevailing BR minus 1%)
5% to 8.99% points	4 (prevailing BR minus 2%)
Above 9% points	3 (prevailing BR minus 3%)

RIDF has, in general, acted as an important source of rural infrastructure funding. The Annual Report of NABARD for 2021-22 shows that the RIDF corpus has reached a cumulative amount of INR 1.4 lakh crores over the years, funding over 3.5 lakh projects.



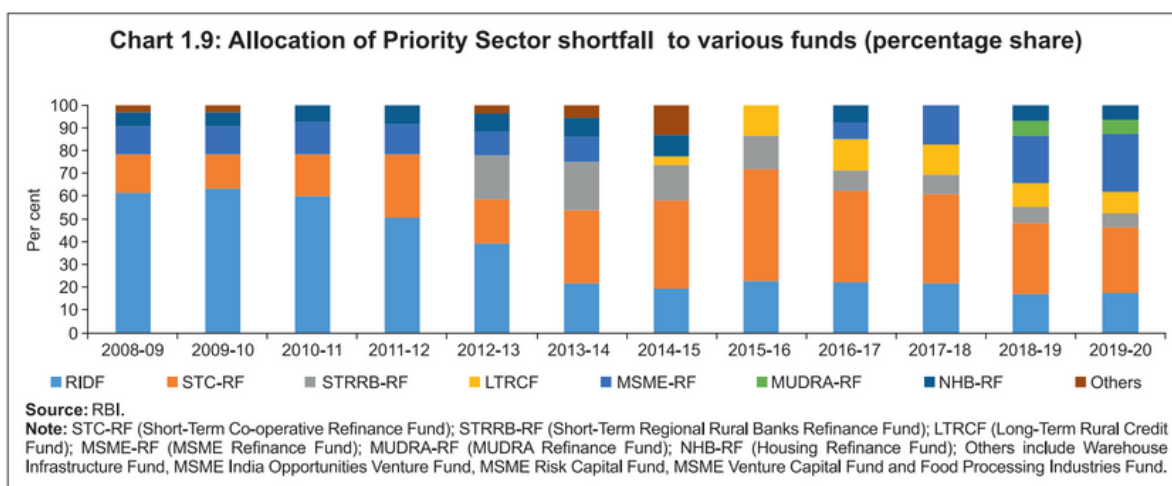
Looking at the status and trends in RIDF fund allocations and disbursements, we see from the figure above that while sanctions of the funds have risen over the years, the disbursements have lagged behind a little. The RIDF total sanctions for the year 2021-22 were around INR 46,073 crores. Out of this, only INR 33,883 crores were disbursed. Thus, even though the sanctioned amount is increasing annually in nominal terms, the utilisation rate of RIDF funds is seen as reducing.

A reason for this divergence in sanctions and disbursements could be the fact that while sanctions pertain to the specific fiscal year, the disbursements, because of the phasing process, depend on the sanctions of previous years. Thus, closing of earlier tranches can reduce the number of disbursements.

Another reason for this could be the mechanism of disbursements followed under RIDF. In order to finance their projects, the States first have to bear the expenses, and can get them reimbursed by NABARD only after considerable progress is visible. This can create problems for backward states to gather funds initially due to the long gestation periods, high incremental capital-output ratio, high risk and low returns on their investments.

An important issue pertinent with RIDF is that while the main objective of RIDF was to indirectly pressurise commercial banks to meet their PSL targets by using relatively lower interest rates, the banks are still seen to be lax on achieving the set targets. This is because the interest rate differential is not significant compared to the credit risks and transaction costs of dealing with numerous small farmers. The banks try to mitigate the costs associated with direct and indirect priority sector lending to agriculture by choosing the 'penalty' of higher interest rate under RIDF. This, along with an increment in the number of priority sectors, has reduced the quantum of credit available to small farmers. Even though the rural infrastructure created under RIDF is going to help farmers in the long run and the success of RIDF is significant, the farmers have to suffer in the short run.

Another interesting statistic available is that with the emergence of newer avenues for priority sector lending, the share of shortfalls going into the RIDF pool has been declining. The dip in RIDF can be accounted for by the diversion of capital to the new funds designated by the RBI. This can be seen from the chart below:



The announcement of UIDF comes at a crucial point in time: urbanisation is on the rise in India, with a report by the UN claiming our urban population to reach 675 million by 2035. This figure calls for intensive investment in urban infrastructure to cater the needs of the present as well as the future occupants. Aid from Centre and states needs to be complemented by other ways to finance the need of urban infrastructure, and the government is making strides towards them, through Municipal Bonds and of course, the UIDF.

Even though UIDF shall provide Urban Local Bodies with the much-required long-term finance, a concern persists that it might happen at the cost of the rural sector. With another option to meet the shortfall, the share of RIDF, which was already falling, is going to fall even further, thus compromising on the rural infrastructure in totality. Along with that, direct PSL advances to agriculture and even MSMEs shall remain an unattractive option for Banks in comparison to shortfall funds. But keeping this aside and looking at the overall implementation of RIDF over the years, the UIDF surely looks promising.

References

- *Ensuring Rural Infrastructure in India: Role of Rural Infrastructure Development fund Munich Personal RePEc Archive.* (n.d.). <https://mpra.ub.uni-muenchen.de/9836/>
- *A Study on Regional Disparity of Devolution of Rural Infrastructure Development Fund - Evidence for India Munich Personal RePEc Archive.* (n.d.). <https://mpra.ub.uni-muenchen.de/39117/>

- NABARD. (2010). Infrastructure for Agriculture and Rural Development-An Impact Assessment of Investments in Rural Roads and Bridges under RIDF. Mumbai: National Bank for Agriculture and Rural Development
- Dadhich, C. (2014). Revisiting Rural Infrastructure Development Fund (RIDF) Scheme. *Indian Journal of Agricultural Economics*, 69(1), 142–149. <https://doi.org/10.22004/ag.econ.206371>
- Purohit, M. C. (2021, March 28). *Financing urban infrastructure in India an overview of policy lessons*. <https://repository.unescap.org/handle/20.500.12870/1282>
- Sitharaman, N. (n.d.). Speech of Finance Minister, Budget 2023-2024. Union Budget. https://www.indiabudget.gov.in/doc/budget_speech.pdf
- Pandey, R., Rao, C. B., Sengupta, B., Shanmugam, K. R., Vepa, S. S., & Bhat, S. (2014). *APPRAISAL OF PRIORITY SECTOR LENDING BY COMMERCIAL BANKS IN INDIA*. Research Papers in Economics. <http://EconPapers.repec.org/RePEc:mad:wpaper:2014-027m>
- SAGE Books - *Rural Development: Principles, Policies and Management*. (2012, June 19). <https://sk.sagepub.com/books/rural-development-3e/n14.xml>
- The Hindu. (2022, June 30). *India's urban population to stand at 675 million in 2035, behind China's 1 billion: U.N.* <https://www.thehindu.com/news/national/indias-urban-population-to-stand-at-675-million-in-2035-behind-chinas-1-billion-un/article65584707.ece>
- P. (2014b, August 26). *Nabard's rural infrastructure development fund needs a relook, says RBI official.* The Economic Times. <https://economictimes.indiatimes.com/news/economy/policy/nabards-rural-infrastructure-development-fund-needs-a-relook-says-rbi-official/articleshow/40928706.cms?from=mdr>

In her speech, the Finance Minister outlined 4 opportunities that can be transformative during Amrit Kaal. Two of these- “Economic Empowerment of Women” and “Green Growth”, when taken in conjunction, propose a solution that has the potential to shape an equitable and climate-resilient India.

The green economy is expected to create a plethora of job opportunities. In 2022 alone, the demand for green jobs was up by 31%. Harnessing the skills and abilities of women can be a powerful solution that offers multiple benefits with minimal trade-offs. An inclusive green economy has the potential to achieve a dual impact, addressing both the challenges posed by climate change and empowering women to be financially independent. This is an ideal two birds, one stone scenario that can be achieved through strategic and inclusive policy action. Gender-responsive budgeting, analysis, formulation, implementation, and monitoring of policies and programmes can ensure that their benefits are accessible to all.

Despite progress in some areas, gender disparities in India's labour market persist. The country has some of the lowest Female Labour Force Participation Rates (FLFPR) in the world, with men earning 82% and women earning only 18% of labour income. As it stands, the green energy sector does not deviate from this trend. Currently, only 10% of positions in the sector are occupied by women and a significant portion of the work is non-technical, as reported by the International Energy Agency (IEA). These statistics reflect the significant power differential between men and women that still exists in India, indicating a need for continued efforts to promote gender equality and women's economic empowerment in the green sector.

It is also important to note that women are disproportionately affected by climate change and “dirty” energy sources. Due to gender-based division of labour, they spend the most time with natural resources and are often responsible for securing food, water, and fuel

for their households. The absence of these resources leads to an increased domestic workload, trapping women in a cycle of time poverty and unpaid labour.

Access to safe energy sources is not only a necessity but also a human right that is essential for human development. By providing relief from the drudgery of household chores, clean energy empowers women to pursue other opportunities and activities, such as education, work, and leisure. Improved access to energy sources also translates to improved health outcomes. Women can become active participants in the energy value chain and deliver clean energy solutions that benefit not only themselves but also their communities and other women, resulting in a positive cycle of empowerment. As the renewable energy sector expands, there is a growing need for entrepreneurs who understand the renewable energy ecosystem and maintain a balance of innovation and implementation to navigate this change. Training women for such demand-based jobs is an investment in human capital.

Three in four women in rural India are engaged in agriculture, a sector especially vulnerable to climate change. By adopting natural farming, women can lead climate-resilient agricultural practices. These techniques, including crop rotation, intercropping, mulching, and organic composting, can aid in soil restoration, improve crop resilience, and decrease greenhouse gas emissions. Natural farming is more accessible and cost-effective for women as it employs local resources and reduces the reliance on external inputs. Through this, women can make meaningful contributions to improving food security, reducing poverty, and minimising the ecological impact of agriculture.

A gender-diverse workforce and leadership have been found to be effective in risk management, innovation, and problem-solving. According to the World Bank, women in leadership positions and female employees are more committed to taking action on climate and have been shown to be more successful in doing so. In fact, studies indicate that companies with higher gender diversity after the Paris Agreement reduced their CO₂ emissions by 5% more than those with more men in management. Moreover, firms that increased the representation of women on their boards were more likely to reduce energy consumption, greenhouse gas emissions, and water usage.

One effective approach to recognize and support women's independence at different

levels is by fostering the creation and promotion of women-led-microenterprises. This can be achieved by expanding extension services, including capacity building, training, and facilitating access to credit. According to a report by the United Nations Development Programme (UNDP), since women face difficulties in obtaining access to finance, either through microfinance institutions (MFIs) or traditional banking, their ability to invest in the renewable energy sector is highly restricted. Women from rural areas or economically disadvantaged communities need to be empowered by promoting eco-entrepreneurship models. One such example is the "Solar Mamas" program, where women receive training in assembling and selling solar products, such as lanterns and home lighting systems, to provide a source of income for themselves.

The government must also create new, targeted policies or modify existing ones with a focus on increasing women's participation in renewable energy projects. For instance, the Mahatma Gandhi National Rural Employment Guarantee Act could be expanded to include more green jobs. By including the green sector, the government would also be helping to support the growth of environmentally sustainable businesses and communities, while also improving the quality of life for rural women.

Further, employers must also take action to reduce barriers for women by reevaluating their hiring and retention practices, offering supportive childcare services, recognizing and combating unconscious prejudices, and preventing sexual harassment in the workplace.

The shift towards low-carbon and sustainably managed economies holds great potential for job creation, upgrading of work opportunities, promotion of social justice and eradication of poverty. However, it is important that governments, workers, and employers' organisations collaborate to make sure that this transition is effectively managed and that all relevant stakeholders are fully involved. If the right steps are taken, women can lead climate action and become equal beneficiaries of renewable energy. As women become involved in providing energy solutions, they take on more active roles in their communities and help to gradually change the cultural and social norms that have previously hindered their agency.

References

- Deininger, F., & Gren, A. (2022, November 29). Green jobs for women can combat the climate crisis and boost equality. World Bank Blogs. <https://blogs.worldbank.org/climatechange/green-jobs-women-can-combat-climate-crisis-and-boost-equality>
- International Energy Agency. (2019). *Women working in the rooftop solar sect.* <https://www.iea.org/reports/women-working-in-the-rooftop-solar-sector>
- Karthik, M. (2022, November 14). *Closing the gender gap in clean energy transitions.* Down To Earth. <https://www.downtoearth.org.in/blog/renewable-energy/closing-the-gender-gap-in-clean-energy-transitions-85953>
- Lamb, H. (2022, April 4). *To boost the Indian economy, we must train women in green skills and jobs.* Times of India. Retrieved February 14, 2023, from <https://timesofindia.indiatimes.com/blogs/voices/to-boost-the-indian-economy-we-must-train-women-in-green-skills-and-jobs/>
- Singhal, S. (2022, September 2). *Climate change and women: A crisis within a crisis.* ORF. Retrieved February 14, 2023, from <https://www.orfonline.org/expert-speak/climate-change-and-women/>
- Sitharaman, N. (n.d.). *Speech of Finance Minister, Budget 2023-2024.* Union Budget. https://www.indiabudget.gov.in/doc/budget_speech.pdf
- United Nation. (2021). *Scoping Study and Policy Imperatives on Green Jobs and Eco-Entrepreneurship Opportunities for Women in Select States in India* [Report on Green Jobs for Women in India]. <https://www.undp.org/india/publications/green-jobs-and-eco-entrepreneurship-opportunities-women-india>
- Women farmers are helping transition to natural farming in Andhra Pradeshs. (2022, October 7). *Business Standard.* https://www.business-standard.com/article/economy-policy/women-farmers-are-helping-transition-to-natural-farming-in-andhra-pradesh-122100700178_1.html



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