

NEWS ITEMS ON CAG/ AUDIT REPORTS

1. Fraudulent activities in Post-Matric Scholarship scheme (*dailypioneer.com*) 19 October 2023

A recent report by CAG (Comptroller and Auditor General) India on fraudulent activities in Post-Matric scholarship in Odisha has exposed many insidious aspects of the welfare scheme. In the report titled "Performance Audit of Implementation of Direct Benefit Transfer in Payment of Post Matric Scholarship to Eligible Students in the State" has clearly mentioned that fraudulent payment summing up approximately to Rs 58.79 crore has been found out in Odisha. The overall major findings in the CAG report is based on a simple fact i.e manipulation of the direct benefit transfer (DBT) mechanism.

The other supportive but serious concerns mentioned in the report are the low response as well as poor implementation framework from institutions towards Direct Benefit Transfer (DBT), especially the improper communication between State Advisory Committee (SAC) and National Payments Corporation of India (NPCI).

In addition to these, the CAG detected other loopholes in scheme such as demerits in implementation and its guidelines, fraudulent drawal of scholarships by ghost institutes and diversion of scholarships by institutes from the bank accounts of the students to accounts of the institutions.

Opposition parties in Odisha, students and parents association demand a high level inquiry on this CAG report.

Previously, the CAG had exposed irregularities in scholarship disbursement in many other States such as Maharashtra, Haryana, Karnataka, Tamil Nadu and Punjab. Now Odisha joined the team.

Post Matric Scholarship (PMS) is a welfare scheme which is dynamic in nature with many facets. The thrust area of the scheme is to provide financial assistance to the students from weaker section for post secondary or post matriculation study. If we say categorically, PMS is designed to cater financial support to SC, ST OBC, SEBC, EBC, disabled and minority background students to pursue their higher education from 11th to Post - Doctoral studies.

The objectives which drive the PMS scheme as one of the mediums of social justice are enhancing the weaker and marginalized students' attainment of higher education, increasing Gross Enrollment Ratio(GER), focusing upon the students academic performance and inclusion of females in higher education.

As per AISHE report, it has been observed that there is also a substantial increase of 8.7% in student enrolment in last five years from 2015 to 2020 in Odisha. Further if we consider the last five years Gross Enrolment Ratio (GER) both in National and Odisha level, we shall find that there is a remarkable enhancement in GER in both the Centre and State. In Gross Enrolment Ratio (GER) , Centre has jumped from 24.5% in 2015-

16 to 27.1 % and Odisha has increased the Gross Enrolment Ratio (GER) from 19.6% in 2015-16 to 21.7% in 2019-20.

Maximum female enrolment in higher education is a symbol of empowered society. It promotes gender equality. And we clearly understand that inclusion of women in higher education contributes to sustainable development of any country. Remarkably, a positive trend of female participation or enrolment has been revealed by AISHE - Reort. As per this report there is an increase of 18% of women inclusion in higher education in last five years from 2015-16 to 2019-20 at national level. In case of Odisha, only 11.80% has been increased in female enrolments in last five years from 2015-16 to 2019-20. Further in a good note it is found that in Post Graduate Courses female enrolments are more than enrolled male in Odisha's higher education institutions as compared to PhD and Mphil courses.

Proportion of female enrolments in comparison to the number of males enrolled in a given stage of education is the answer to the relative access to education by the two genders. This is called as gender parity.

An Index released by UNESCO is named as Gender parity Index to find out the equitable participation of female in education system. In Odisha, the total or overall GPI for 2019-20 is 0.88 as compared to 0.82 in 2018-19. In SCs and STs of Odisha it is reported that GPI for SCs in 2019-20 is 0.80 against 0.76 in 2018-19 and for STs GPI for 2019-20 is 0.85 as compared to 0.78 in 2018-19 in state level. So in the State like Odisha the GPI in Scheduled Caste and Scheduled Tribe including others are improving.

The statistics shows that PMS scheme in Odisha is paving its way to achieve its objective. More to say in skill development as well as in employability aspect students pursuing higher education are also doing well.

PMS in Odisha perspective can be analysed in two components, such as General Impact Analysis and Categorical Impact Analysis. General impact covers students attitude towards education, academic performance, scholarship expenditure head and motivation to continue the learning. Categorical impact implies the impact analysis of PMS on the basis of gender, area from which students belong to, area in which institutes are located and most importantly PMS recipients' nature. Here a few more things can be added which have been repeatedly addressed by many scholars in their research on PMS such as urban and rural students, quality of education, hostel and medical facilities provided by educational institutions and students dropouts. Few students associations say that PMS assistance is too low but higher education expenditure is too high.

They face problems to manage all expenses. Considering these as challenges, SC, ST and Minorities Department of Odisha has been into SWOT analysis. For this year an action plan has been made by calibrating with Centrally Sponsored Scheme of Government of India.

The CAG has made few suggestions which include a broader role for concerned State Government offices such as DBT cell, State scholarship Portal and DWO. These officials should work in tandem with educational institutions. The idea to implement PMS scheme in Odisha is noble. Despite many challenges, it has been serving our

higher education at its best. <https://www.dailypioneer.com/2023/state-editions/fraudulent-activities-in-post-matric-scholarship-scheme.html>

2. Tenders invited for maintenance of plant (*timesofindia.indiatimes.com*) Oct 19, 2023

Thiruvananthapuram: After facing flak for non-maintenance of community biogas plants, the city corporation has invited tenders for the annual maintenance contract (AMC) for the biogas plant at Sreekaryam market.

The plant had earlier burst reportedly under pressure, spilling the slurry all over the road leading to public outrage. The slurry spread over the road and when the vehicles ran over, it caused inconvenience to the pedestrians. A pungent smell also engulfed the area causing distress to shopkeepers and local residents also.

The figures in a tender document of digital solid waste management system showed that only 52% of aerobic bins and 12% of biogas plants are currently functional in the city. A total of 513 aerobic bins and 25 biogas plants were installed at various points in the city. Owing to lack of maintenance, many of these community waste management units became dysfunctional.

The recently published CAG audit report observed that Thiruvananthapuram corporation installed 10 community level biogas plants having capacity of one or two tonnes per day in public markets during the period from 2011-12 to 2015-16. Although the corporation spent Rs 19.50 lakh for the maintenance of five community level biogas plants and Rs 11.31 lakh towards AMC for five plants during 2019-20 and 2020-21, eight out of the 10 plants were not functioning as in October 2021. Earlier the civic body had conceived a plan to revamp the community biogas plants set up across public markets, schools and other major junctions in the city. A consolidated report on community biogas plants set up across public markets, schools and other major junctions in the city. A consolidated report on community biogas plants prepared by the health wing had in 2016 pointed out that eight out of 14 community biogas plants were not functional. <https://timesofindia.indiatimes.com/city/thiruvananthapuram/tenders-invited-for-maintenance-of-plant/articleshow/104541025.cms>

3. PMK for plan to restore Pallikaranai (*dnnext.in*) 19 Oct 2023

CHENNAI: Pointing out to the CAG report on degradation of Pallikaranai marshland, PMK president Anbumani Ramadoss urged the state government to implement a special project to restore the marshland, which has been announced as a Ramsar site.

“The CAG office has stated that the marshland is being destroyed by encroachments and the Tamil Nadu government failed to take action.

The report has explained with maps about the extent of encroachments between 2005 and 2021.

The report also stated that Kovilambakkam lake also has been destroyed,” Anbumani said in a statement.

He added that there are several news reports about the encroachments on Pallikaranai marshland. PMK and Pasumai Thayagam have conducted several protests to prevent the encroachments. “Even though the government got the Ramsar tag for the marshland, no governments during the last few decades took action to protect the marshland,” he said.

Anbumani further said that Pallikaranai acts as a sponge during excess rains and houses 350 fauna and 200 flora species.

“During 1956, the marshland extended from Adyar river to Buckingham Canal and Guindy to Siruseri covering 15,000 acres. Due to the encroachments, it has shrunk to 1,725 acres. Around 191 acres have been used as a dumping yard and more than 2,000 tonnes of garbage is being dumped every day,” he said. He urged the state to implement a special project to restore the marshland <https://www.dnnext.in/news/tamilnadu/pmk-for-plan-to-restore-pallikaranai-742816>

SELECTED NEWS ITEMS/ARTICLES FOR READING

4. GST officers detect Rs 1.36 lakh crore evasion in current fiscal (*moneycontrol.com*) OCTOBER 18, 2023

GST Intelligence Officers have detected GST evasion of Rs 1.36 lakh crore in the current fiscal, the finance ministry said on October 18. In a statement the ministry said, in order to tackle the menace of GST evasion, the Directorate General of GST Intelligence (DGGI) develops intelligence, especially in new areas of tax evasion, through advanced tools for data analytics besides using its intelligence network across the country to collect such information.

In the 2022-23 fiscal, GST officers had detected evasion of over Rs 1 lakh crore. Six months into the current fiscal, the evasion detection has crossed last year's number. "Overall in FY 2023-24, Rs 1.36 lakh crore has been detected as overall GST evasion (including fake ITC) and voluntary payment of Rs 14,108 crore has been made for the same," the ministry said.

A total of 1,040 fake ITC cases involving Rs 14,000 crore have been detected so far in the current fiscal. As many as 91 fraudsters have been apprehended till date. In case of evasion through fake input tax credit (ITC) between April 2020-September, 2023, GST intelligence officers have detected Rs 57,000 crore tax evasion.

"From April 2020 to September 2023, more than 6,000 fake ITC cases involving more than Rs. 57,000 crore GST evasion have been detected and a total of 500 persons have been arrested," the ministry said in a statement. Since June 2023, DGGI has laid special emphasis to identify and apprehend the masterminds and disrupting syndicates, operating across the country.

Cases have been unraveled using data analysis aided by advanced technical tools which has led to the arrest of tax evaders. These tax syndicates often use gullible persons and entice them with job / commission / bank loan etc. to extract their KYC documents

which were then used for creation of fake / shell firms / companies without their knowledge and consent. In some cases, KYCs were used with the knowledge of the concerned person by paying them small pecuniary benefits, the ministry added. <https://www.moneycontrol.com/news/business/economy/gst-officers-detect-rs-1-36-lakh-crore-evasion-in-current-fiscal-11558591.html>

5. India must tackle its malnutrition problem (*thehindubusinessline.com*) 18 Oct 2023

As in the past, the Global Hunger Index (GHI) 2023, an annual report brought out by Concern Worldwide and Welthungerhilfe, shows India in unflattering light. For an economy of \$3 trillion, it is hard to accept that India ranks 111 out of 125 countries, those with sufficient data to assess GHI scores. Bangladesh, Nepal, Indonesia and Cambodia are much better off. The assessment of ‘hunger’ (malnutrition is perhaps a better term) broadly pertains to the Covid period and a couple of years preceding it. Questions have been raised about the methodology, which includes whether the GHI mislabels serious malnutrition as one of hunger.

The GHI score is based on an aggregation of four indices: undernutrition in terms of calorie intake in the entire population, to which a weight of one-third is ascribed; child stunting and child wasting (a sixth each); and child mortality (a third). On the data regarding stunting, wasting and mortality of children, the parameters are clear. On undernutrition, it is perhaps less so. Undernutrition levels in India are estimated to have risen in 2020-22, over the 2014-16, despite the fact that free grain distribution has been around for long. This seems counter-intuitive. India’s total GHI score of 28.9 is considered ‘serious’ on a scale of 100, where a low GHI score is below 9.9. Broken into its components, undernourishment in India (16.6 per cent of the population) is ‘high’; child wasting (18.7 per cent of under five children) and child stunting (35.5 per cent of under five children) are ‘very high’; while child mortality (3.1 per cent of under five children) is ‘moderate’. India is a dubious first in child wasting (low weight for height) and 15th highest in child stunting (low height for age) — an indicator of malnourishment. This is despite the decline in stunting from 50 per cent in 2000. There has been no real improvement in child wasting levels over 20 years. Child mortality has fallen with better immunisation coverage.

Imperfections in the GHI should not detract from the fact that India needs to fix its malnutrition problem. The FY24 Budget has done well to set aside ₹800 crore for providing subsidised pulses through the PDS and welfare schemes. A shift away from just rice and wheat (five kg or more at present) must be contemplated to include a larger component of pulses and millets. An increase in the food subsidy to address nutritional deficiencies is worth it, as it will bolster human capital in the long run. To this end, procurement of pulses and millets must improve. Endemic pulses inflation, which cannot entirely be explained by the demand-supply gap, should be checked — a phenomenon where farmers appear to get very little.

Community kitchens, mid-day meals have helped alleviate nutritional distress in southern States. It is high time that these deliveries picked up elsewhere, through PPP initiatives if need be. There is no getting away from this policy menu. <https://www.thehindubusinessline.com/opinion/editorial/india-must-tackle-its-malnutrition-problem/article67434625.ece>

6. Review open-ended grain procurement: CACP *(financialexpress.com)* 18 Oct 2023

The Commission for Agricultural Costs and Prices (CACP) has called for a review of the government's open-ended grain procurement policy to restrict rice and wheat purchase from the farmers for the meeting requirement under the National Food Security Act.

The open ended procurement policy for rice and wheat has resulted in accumulation of huge stocks of rice and wheat, and distorts cropping pattern and leads to over exploitation of groundwater, CACP has stated in its report on price policy for rabi crops for the marketing season (2024-25).

The Food Corporation of India (FCI) and state agencies purchase around 80 – 85 million tonne (MT) rice and wheat annually from the farmers for meeting the need under NFSA where 800 million people are provided 5 kg grain per month free.

Alternatively, the commission has suggested compensation to the farmers for additional marketed surplus through Price Deficiency Payments. where farmers are compensated for the price difference between average mandi prices in key producing states and the minimum support price (MSP).

“Since wheat procurement in Bihar, Rajasthan and Uttar Pradesh is low, the Commission recommends strengthening of procurement operations in these states,” according to the report.

CACP recommends MSP for 23 crops to the government. Based on CACP recommendation and inputs from the state government, the cabinet approves MSP of the crop.

In order to enhance domestic production and ensure remunerative prices to farmers growing pulses and oilseeds, the commission has recommended that the ceiling for procurement of pulses, in particular, arhar, urad and lentil, where import dependence is high, should be reviewed.

India imports about 15% of its pulses consumption, especially tur, urad and lentils.

In order to protect oilseed farmers from adverse impact of import of edible oils which according to trade estimate is likely to be 17 million tonne (MT) in 2022-23 oil year (November-October), the commission has recommended a dynamic tariff structure linked to world prices, demand supply situation, domestic prices of edible oils and MSP of oilseeds should be introduced.

Indian imports around 56% of its annual edible oil consumption.

In order to improve capacity utilization of the domestic edible oil refining industry, the commission has suggested a duty differential of about 15% between crude and refined oil should be maintained to discourage import of refined oils.

The Solvent Extractors Association of India, an apex body of top edible oil companies, has urged the government to increase the gap between effective import duty on crude and refined edible oils. Currently, the effective import duty on crude edible oil is 5.5% and that on refined oil is 13.75%.

Stating that domestic consumption of edible oils has increased at a faster pace than domestic production, the commission has stated that for reducing import dependency, “special efforts are needed to increase production of major oilseeds such as mustard, sunflower and tap potential of non-conventional oils such as rice bran oil, corn oil, etc.” <https://www.financialexpress.com/policy/economy-review-open-ended-grain-procurement-cacp-3276913/>

7. Sustaining the marine economy with blue bonds (*thehindubusinessline.com*) 18 Oct 2023

The Indian Ocean is home to a vast array of marine life but is also under increasing pressure from pollution, overfishing, and climate change. A new set of guidelines released by the United Nations Environment Programme Finance Initiative (UNEP FI) could help unlock the financing needed to protect and restore the Indian Ocean. Blue bonds have the potential to make a significant contribution to the sustainable development of the Indian Ocean. SEBI is developing guidelines for blue bonds in India. Once the policies are in place, blue bonds can finance many projects that benefit the Indian marine environment and economy.

Blue bonds are a type of sustainable bond specifically designed to finance projects that protect and restore the ocean and its resources. They are relatively new financial instruments, but they have grown in popularity recently as awareness of the importance of ocean conservation has increased. Blue bonds are similar to other sustainable bonds, such as green and social bonds. However, they are specifically focused on ocean conservation and sustainable development. They can be issued by governments, development banks or other organisations and purchased by individual investors, institutional investors and other financial institutions. The new guidance from UNEP FI clarifies the eligibility criteria for blue bonds and the key performance indicators that should be used to measure their impact.

How can India benefit?

India is well-positioned to benefit from blue bonds. The country has a long coastline and a vast marine economy. The government is also keen on investing in sustainable fisheries, aquaculture, and marine renewable energy. Blue bonds can play a vital role in supporting these efforts. Blue bonds provide the funds needed to develop and implement sustainable ocean projects, such as clean energy projects, offshore wind farms and wave energy converters, marine protected areas, sustainable fisheries and aquaculture, marine pollution prevention and clean-up, etc. The new guidance from UNEP FI provides a clear framework for defining and measuring the impact of blue bonds, allowing investors to make informed decisions about where to invest their money.

Blue bonds can finance projects that protect and restore the ocean and its resources, such as coral reefs, fisheries and marine wildlife. Such bonds help to increase the awareness and importance of ocean conservation.

However, blue bonds are not free from disadvantages and might not serve the intended purpose for the following reasons. These bonds are a relatively new financial instrument, and there is still a lack of liquidity in the market. This can make them more expensive than other types of bonds. Moreover, no agreed-upon definition of what constitutes a blue bond exists. This could make it difficult for investors to compare different blue bond projects and assess their risks and returns.

Overall, blue bonds are a promising new financing mechanism that could be used to protect the ocean and its resources. They have the potential to make a significant positive impact on the global environment and economy. With blue bonds in place, India could create a sustainable blue economy that benefits people and the planet. <https://www.thehindubusinessline.com/opinion/sustaining-the-marine-economy-with-blue-bonds/article67435403.ece>

8. We need a legal framework for collective climate action (*livemint.com*) 18 Oct 2023

It's critical to set obligations and rights so that we can stop action violative of global trade and climate laws

Three international disputes on climate change raise critical questions on the rights and obligations of countries and human rights of individuals in relation to climate change. First is a case initiated by Vanuatu, a small Pacific island nation, pursuant to which the United Nations General Assembly (UNGA) passed a resolution in March, asking the International Court of Justice (ICJ) for an advisory ruling on obligations of states under international law to protect the climate system. The second is a request from the Commission of Small Island States on Climate Change and International Law, a group of nine island states, for an advisory opinion from the International Tribunal for Law of the Sea on whether climate change is a "threat to their survival". The third is a lawsuit by six Portuguese youth against 33 countries (European Union, Norway, Switzerland, UK, Turkey, Russia and Ukraine) at the European Court of Human Rights that their human rights have been violated by the lack of adequate climate action.

The outcome of these cases will have a profound impact on the legal interpretation of what countries need to do to address one of the biggest catastrophe of our times. Much like the coronavirus, climate change does not respect territorial boundaries. While solutions to address climate change exist, the political commitment for collective action through compliance with agreed principles, sadly, is missing.

The first "global stock-take" report from the United Nations since the Paris Agreement to the UN Framework Convention on Climate Change (UNFCCC) was signed in 2015 states the obvious—how we travel, eat and use energy needs transformation. That indeed is one of the mantras of the UN Sustainable Development Goals (SDGs) and is central to India's LiFE (Lifestyles for Sustainable Development) initiative. The stock-take report released early September echoed the findings of the Intergovernmental Panel on Climate Change's AR6 synthesis report published earlier this year, which warned of a rapidly closing window of opportunity to address climate change concerns and secure a sustainable future for all.

The recently-concluded G20 New Delhi Declaration, while emphasizing the need for “climate resilient and environmentally sustainable development pathways”, reminds of the basis of internationally-agreed principles of climate action, central to which is that developed countries have higher targets than developing countries, as is reflected in their nationally determined contributions (NDCs) agreed under the Paris Agreement. NDCs differ from country to country, premised in the UNFCCC’s foundational principle of “common but differentiated responsibility”, and that, in turn, is premised on the higher carbon space already occupied by developed countries, while developing countries need greater support to ensure that their path to development is green and sustainable.

Despite the glowing reiterations of agreed principles, compliance with climate obligations has been patchy. A 2009 commitment among UNFCCC members to mobilize \$100 billion per year—a fraction of what is needed—for developing countries by 2020 remains unfulfilled.

It is, therefore, ironical that unilateral climate measures such as EU’s Carbon Border Adjustment Mechanism (CBAM) mandate that imports into the EU will require the purchase of CBAM certificates, representing the difference in price of embedded emissions between the EU and the country of origin. This is effectively reverse-financing of EU’s climate targets by developing countries! While the obligation to purchase CBAM certificates begins on 1 January 2026, highly onerous reporting requirements are effective from 1 October 2023.

CBAM runs counter to World Trade Organization (WTO) principles, which do not differentiate products based on production-related emissions. It also runs afoul of the principles of differential NDCs. While raising a WTO dispute is a must, India’s government should also consider testing the dispute settlement provisions of the UNFCCC and Paris Agreement. The UNFCCC mandates that unilateral action to combat climate change mustn’t constitute a disguised restriction on international trade.

Both the UNFCCC and the Paris Agreement provide the option for conciliation, arbitration and the compulsory jurisdiction of the ICJ, based on the choice of a party. While neither EU nor India have opted for any of these mechanisms, referring a dispute to the ICJ would be possible if both parties agree to do so. Alternatively, as a member of the UN, it is open to India to seek an advisory opinion of the ICJ. It is this advisory jurisdiction that Vanuatu initiated. The UNGA resolution seeking the advisory opinion notes with concern the lack of financial mobilization to address climate change, and raises questions as to the obligations of states to protect the climate system, and legal consequences of their acts and omissions. While ICJ’s advisory opinions are non-binding, they can help clarify the balance of climate-related rights and obligations of countries.

Raising disputes are never the first best option to resolve differences. However, we do not have the luxury of time to leave contentious issues to protracted negotiations. Timely action to stem the tide of climate unilateralism is crucial to drive home the point that climate change can be addressed only when collective action for emission reduction is coupled with efforts to ensure green pathways for development for all. <https://www.livemint.com/opinion/online-views/we-need-a-legal-framework-for-collective-climate-action-11697629866512.html>

9. From burning various fuels, India must move to clean power for all energy needs (*financialexpress.com*) 19 Oct 2023

Humanity's path to becoming the dominant species on earth has primarily been due to our ability to generate and control large amounts of energy beyond which our bodies can produce. The vast majority of this external energy—historically and even today—has been released through combustion, specifically the burning of biomass, both fossilised, like petroleum and coal, as well as simply dehydrated, like firewood and dung cake. Only in the last 150 years or so have we learned to control a more efficient and flexible form of energy—electricity. However, even this electricity has been mainly generated through combustion in thermal power plants. In the age of man-made global warming, it is important to remember that combustion releases air pollutants that harm our health and greenhouse gases (GHG) that contribute to the planet's heating.

Currently, India's energy sector accounts for 68.7% of GHG emissions. These are the by-products of the combustion economy that presently powers our lives and economy. Notably, much of this energy is imported, putting a question mark on energy security. In 2022-23, 89% of crude oil, 44% natural gas, and 21% coal was imported, and all this was when India's per capita energy use is one-tenth of countries like America and less than one-fourth of the global average.

Clearly, we need to produce more energy domestically, and do so more cleanly than we have managed thus far. If we intend to meet our commitment to being Net Zero by 2070 and attain energy independence by 2047 while keeping our economy growing and continuing to improve citizens' lives, we must transition from a combustion economy to an electron economy. We have here the chance to make huge gains by enhancing energy security, reducing pollution and health costs, improving the availability of and access to energy, and mitigating the climate crisis.

In a combustion economy, we use multiple sources and channels to meet our energy needs. We use the electricity grid to light and condition our homes, gas pipelines or gas cylinders (or biomass) to cook food, petrol pumps to drive our vehicles, and a combination of energy sources to run our factories. In this economy, electricity plays a relatively minor role. Currently, only 19% of all the energy consumed in India is in the form of electricity; the remaining 81% is the direct use of coal, oil, gas, and biomass.

In an electron economy, electricity is the prime mover and is generated directly by clean sources. According to multiple modelling studies, to achieve Net Zero by 2050, the world must meet 50-70% of its energy demand from electricity, and 70-85% of this electricity should be supplied by renewables. How realistic is it for India, where all clean energy sources only provide 6% of the energy supply, to meet a large majority of its energy needs through non-fossil electricity?

In the last 10 years, renewable electricity has grown at 16.1% annually and has reached 31% of the total installed capacity. The installed capacity of all non-fossil fuel sources is now 43.7% of the total. This trend will continue, and renewables will become India's dominant energy source.

The biggest challenge of renewable energy sources is their intermittency, which can only be resolved by the wholesale adoption of energy storage systems. Fortunately, the

cost of renewables has been dropping rapidly in India over the last few years to the point where solar energy is already cheaper than coal, historically the cheapest source of electricity. While there have been hiccups now and then, there is a secular trend towards falling prices. This is also visible in the cost of battery storage, which has fallen by 80% in the past five years and is projected to drop by 60% in the next decade. The result of these cost reductions is already visible. The round-the-clock (RTC) renewable energy cost has fallen to Rs 4.5/kWh. If this trend continues, RTC will be competitive with new coal power in India in 2025.

The final piece of this puzzle is green hydrogen, produced with renewable electricity. Its availability is crucial to decarbonise the hard-to-abate industries and heavy transport sector. The biggest impediment to its production till now was the high cost of renewable electricity. With falling renewable prices and government incentive programmes, green hydrogen is slowly becoming a reality.

While renewable-plus-storage is increasingly looking more economical, the true benefits of a modern decarbonised electricity system lie in changing the nature of the grid. We need a smart grid that allows real-time generation and transmission management in response to demand.

India's interest in such solutions has so far been motivated by the need to reduce energy theft and transmission losses. As a result, India has largely prioritised demand-side smart metering with limited investment in power supply coordination. Investing in an overhaul of the grid not only lays the ground for decarbonisation, it also makes economic sense. As part of its stimulus package after the 2008 financial crash, the US government invested \$3 billion in smart grids. The investment returned \$6.8 billion in economic benefits, including 50,000 new jobs and \$1 billion in additional government revenue. This is one of the highest 'multiplier' effects for any government infrastructure investment.

In addition, the transformative potential of renewable-plus-storage-plus-smart-grid is highest in areas currently under-served by the grid. Investing in these under-served communities will bring significant socio-economic returns. It will also drive innovation in the sector, reducing the cost of modern power. Finally, it will reduce the air emissions generated by burning biomass in these regions, and contribute significantly to improve poor air quality and the health of women in particular who suffer from inhaling cooking smoke.

India needs to move at full speed toward an electron economy for the people and planet. We must seize this opportunity to be at the cutting edge of the coming transformation. <https://www.financialexpress.com/opinion/electron-at-the-centre-from-burning-various-fuels-india-must-move-to-clean-power-for-all-energy-needs/3276893/>

10. Global Water Crisis Looms Large due to Freshwater Ecosystem Degradation (*newslick.in*) 19 Oct 2023

“Water, our planet’s lifeblood, and the ecosystems that store and supply it — rivers, lakes, wetlands and aquifers^[SEP] — have been consistently undervalued. This oversight exacts a profound toll: a water crisis that corrodes human well-being and jeopardizes^[SEP] our planet’s health. The realities are stark: hundreds of millions lack

access to clean water, billions lack proper sanitation, and water-driven risks imperil food security and livelihoods. Nearly three quarters of recent disasters have been related to water,” wrote Kirsten Schuijt, the director general of WWF (World Wide Fund for Nature), in a foreword of a report published by WWF, and titled “The High Cost of Cheap Water”.

The WWF report assesses the annual economic value of water and freshwater ecosystems and how their degradation due to human activities poses challenges for economies, food security and planetary health. Its estimation suggests that natural water resources account for a hefty \$58 Trillion Economic Value, which is equivalent to 60% of the global GDP (Gross Domestic Product). But, human activities have been spiralling down the freshwater ecosystems globally, threatening the economic value as well as the ‘irreplaceable role they play in sustaining human and planetary health’.

The world has lost 70% of its wetlands since 1970, and the wildlife populations in freshwater have dropped by a staggering 83%. This has an impact on people as well—water shortages have increased, coupled with food insecurity, the report says. Rivers, lakes and other freshwater systems have faced extreme drought and floods along with increasing pollution for which food sources like freshwater fisheries have declined severely, WWF says in its report.

“We need to remember that water doesn’t come from a tap – it comes from nature. Water for all depends on healthy freshwater ecosystems, which are also the foundation of food security, biodiversity hotspots and the best buffer and insurance against intensifying climate impacts. Reversing the loss of freshwater ecosystems will pave the way to a more resilient, nature-positive and sustainable future for all,” commented Stuart Orr, the Global Freshwater lead of WWF, in a statement, highlighting the immediate need for global actions to protect and restore freshwater ecosystems.

The report analysed the direct and indirect economic benefits of water resources. The direct economic benefits, including household water consumption and irrigation for agriculture and industries, are estimated to account for \$7.5 trillion annually. As far as the indirect or unseen economic benefits are concerned, the report estimated a much higher amount--\$50 trillion annually. These include purifying water, enhancing soil health and storing carbon (remember sea water stores carbon), and protecting communities from extreme floods and droughts.

Two-thirds of the largest river systems of the world are no more free-flowing and the wetlands are continuously being lost three times faster than the forests worldwide. Water extraction at an unsustainable amount, pollution by industrial and sewage waste, alteration to the natural flows of rivers and climate change are impacting the world’s freshwater ecosystems.

With this, billions of people worldwide are left without access to clean water and sanitation and growing risk for agriculture and food security. According to an estimation, around 46% of the global GDP is likely to come from areas facing high water risk. As of now, this amounts to 10%.

The WWF report cited the example of the US and Mexico, where the Rio Grande or the Rio Bravo (RGRB) is drying up because of excessive human water extraction. Climate

change further aggravates the water level as rising temperature dries up the water sources. WWF suggests that in the absence of immediate action, there could be a 25% loss of river flow in parts of the RGRB basin by 2050. This will bring devastating consequences for people, wildlife as well as economies. (RGRB is one of the principal rivers in the United States and Mexico. In the United States, the river is called ‘Rio Grande’ and in Mexico it is called ‘Rio Bravo’.

WWF has called for urgent actions to protect the water resources in its report. It calls for governments, businesses and financial institutions to create an urgent plan for building sustainable water infrastructure. It also cautions against the sole focus on building infrastructure while avoiding the source of the problem, which is degraded rivers, wetlands, and aquifers; WWF says that doing this will not solve the imminent water crisis, especially when the climate crisis deepens.

The report suggests that the key to success lies in recognising the freshwater ecosystem as a natural infrastructure and directing investments to reverse the continuing loss of freshwater ecosystems. <https://www.newsclick.in/global-water-crisis-looms-large-due-freshwater-ecosystem-degradation>

11. Faultlines in the jobs data (*thehindubusinessline.com*) 19 Oct 2023

The latest Annual Report of the Periodic Labour Force Survey, covering July 2022 to June 2023, has some interesting results. On the face of it, there seems to be some improvement in the labour market, as expressed in the declining unemployment rate.

The unemployment rate has fallen from a high of 6 per cent in 2017-18, to 3.2 per cent in 2022-23, which is much closer to the historical norm for India.

The unemployment rate reflects the difference between labour force participation and work force participation (or employment). It shows those people who are willing to work and searching for work who are unable to find paid work, as a proportion of all those in the labour force.

Both the labour force and work participation rates have been increasing, which suggests that the decline in the unemployment rate from previous highs need not be a result of more “discouraged workers” who drop out of the labour force because they cannot find work.

This is confirmed by a closer look at the work participation rate (which is better referred to as the employment rate, since it excludes the many millions of people, mainly women, who provide unpaid labour without being recognised as doing so). Figure 2 indicates that the employment rate for the population above the age of 15 years has also been increasing, even if only slightly, and increased for all categories of workers in 2022-23.

Is this a sign that things are at last looking up for India’s workers, that the apparent recovery in GDP growth is finally reflecting some changes in labour demand that will result in more paid employment, and thereby in better conditions of work? Unfortunately, a closer look suggests that such a conclusion would be both premature and misleading.

Disaggregated view

What form has this apparent increase in employment in the latest survey year taken? Table 1 disaggregates the data for the most recent years by type of employment: self-employment, regular paid or salaried work, and casual labour. There is one particular category of self-employment that deserves further discussion: that of “unpaid helper in family enterprises”. India is one of the few countries (perhaps the only country?) that includes this in total employment.

The ILO definition makes it clear that employment covers only that part of work which is remunerated. Therefore, unpaid work of any kind, whether in the family enterprise or within households in care and other activities, is considered to be work but NOT employment. Yet in India, the official data include this category within total “work participation” which is what is used to refer to paid employment.

This is problematic for many reasons — and importantly, it can inflate the numbers of those considered to be in paid employment, when in fact they are not receiving any remuneration.

indicates that this has indeed been a factor. Note that both Tables 1 and 2 provide data on the shares of total working age (or 15 years plus) population, because otherwise the very large differences between male and female employment participation tend to provide a wrong impression of changes, particularly for women.

Strikingly, in rural India, the proportion of women working as unpaid helpers in family enterprises increased by 2.2 percentage points, accounting for nearly half of the purported increase in women’s employment! There was some increase in this even for urban women, but to a much smaller extent.

Own-account self-employment also increased for both men and women in rural areas, and for women in urban areas. Once again it is not clear how much of this reflected any economic dynamism in rural areas, and how much was simply the result of the inability to find paid jobs, which forced people into various types of micro-enterprise to earn basic livelihood.

Small rise

The increase in regular employment — generally seen to be the most preferred type of work — is the only significantly positive feature, but the increases in both rural and urban areas are relatively small, and well within the margin of error of surveys. What would really matter here is whether this has been associated with an improvement in wages/salaries and other working conditions, a question that we will explore in a subsequent piece.

However, the sectoral composition of employment is also important, and here too the data provide a disturbing picture. Far from an increase in the share of manufacturing and modern services in employment, it appears that agriculture has been the main driver of employment for rural women, showing an increase of nearly 4 percentage points in 2022-23 over the previous year.

This accounts for nearly all of the increase in women' employment — and as we have seen, the bulk of this was in the form of unpaid labour in family enterprises, which should really not be called employment.

In rural India, there has been a 2-percentage point decline of male involvement in agriculture, as they have shifted to construction over the two-year period. But this has been more than counterbalanced by a 4 percentage point increase in women involved in agriculture. Other sectors seem to be broadly stable with only marginal shifts.

Overall, this is not a sign of a dynamic labour market. Initial evidence on wage rates 2022-23 point to an extremely worrying tendency of declining nominal wages over the four quarters of the survey year. What really matters, of course is the movement of real wages, which need to be examined further to assess what is really happening to India's workers. <https://www.thehindubusinessline.com/opinion/faultlines-in-the-jobs-data/article67434746.ece>

12. Public money goes down the drain (*punemirror.com*) 19 Oct 2023

Concerns raised over effective utilisation of the data processing software implemented by PMC after making substantial investment at present, both the new and old computer systems remain in use.

Pune: Concerns have been raised by activists regarding the effective utilisation of the data processing SAP software system, which was implemented by the Pune Municipal Corporation PMC after making a substantial investment six years ago.

Experts argued that establishing a specialised team for software management is crucial for realising the full potential of the system. This step is seen as essential to ensure that public funds invested in the software do not go to waste.

In November 2017, the civic body initiated a project to implement the software. Atas Origin, a reputable company, was selected to handle data maintenance and processing using SAP. The project involved installing computer systems over a year followed by four years of support.

The project aimed to introduce two primary modules, focusing on finance and IT modules of the PMC. While the company made partial progress, the system was officially commissioned on April 1, 2022. Typically, the transition from the old computer system to the new one requires a period of concurrent operation, lasting 23 months, during which essential adjustments are made to the new system. Subsequently, the old system is phased out entirely.

However, it has been a year and a half since the new system's introduction, and both the old and new systems remain in use. The new SAP system is predominantly utilised by the store department, while the finance department only uses it with the old system itself. The primary strength of the SAP system lies in its exceptional reporting capabilities, with even the balance sheet prepared in just two days. Regrettably, this resource remains underutilized by the civic bodies.

Furthermore, the contract with the company responsible for this project over the past six years terminated on May 31, 2023. This leaves the PMC in a precarious position, lacking an effective system to address any issues or deficiencies in the SAP system's operation.

Vivek Velankar, president, Sahaj Nagrik Manch, said, "The civic body has spent crores on the installation of the software system. However, the system needs to be in use in a customised manner. The data is not being maintained effectively. There should be a dedicated team for the software handling and then only the results will be seen. At present, it seems more like a waste of public money."

Ulka Kalaskar, chief accounts and finance officer, PMC said, "The IT department is associated with the programming of the software. However, I cannot provide any information about the functioning of SAP. As far as I am concerned, the software is functioning well within the finance department."

Rahul Jagtap, IT officer, PMC, said, "The SAP software has been used by the civic body efficiently for the past year. However, some people claim it is not being used in an effective manner. If you require further information, it is advised to reach out to the finance department." <https://punemirror.com/pune/civic/public-money-goes-down-the-drain/cid1697664541.htm>

13. Significant delay in several major Yamuna cleaning projects in Delhi: Govt report (*theprint.in*) 19 October, 2023

Several major projects aimed at cleaning the Yamuna River in Delhi are reported to be running behind schedule, according to a recent Delhi Pollution Control Committee (DPCC) report.

The report, submitted to the National Green Tribunal (NGT), highlights significant delays in projects undertaken by the Delhi Jal Board (DJB) and the Delhi Development Authority (DDA) to reduce pollution in the river.

The projects include the construction of new sewage treatment plants (STPs), rehabilitation of existing ones, trapping of drains, laying sewer lines in unauthorised colonies, desilting of trunk sewers and utilisation of treated wastewater. These initiatives are part of an NGT panel's "Action Plan to Rejuvenate Yamuna".

According to the DPCC report, the work by the DDA to restore the Yamuna floodplains, divided into several sections, has been delayed by six to 12 months.

The report reveals that the construction of a new 124 million gallons per day (MGD) STP in Okhla has been delayed by nine months and it is now expected to be completed by March next year. Similarly, the construction of a 7 MGD STP in Sonia Vihar has been delayed by four months, with a new completion target set for the end of 2023.

The 22-kilometre stretch of the Yamuna between Wazirabad and Okhla, which represents less than two per cent of the river's total length, accounts for approximately 75 per cent of its pollution load. High levels of pollution in the river are attributed to untreated wastewater from unauthorised colonies and jhuggi-jhopri clusters, as well as

the poor quality of treated wastewater discharged from STPs and common effluent treatment plants.

The Delhi government has made a commitment to clean the Yamuna to bathing standards by February 2025. To meet these standards, the biochemical oxygen demand (BOD) should be less than three milligrams per litre and dissolved oxygen (DO) should be greater than five milligrams per litre.

Currently, Delhi generates 792 MGD of sewage and 35 STPs across the city can treat up to 667 MGD of sewage, utilising around 70 per cent of their capacity (550 MGD). Around 242 MGD of sewage directly enters the river.

Government data indicates that only 10 out of the 35 operational STPs in the capital meet the prescribed standards for wastewater (BOD and Total Suspended Solids less than 10 milligrams per litre), with the capacity to treat 150 million gallons of wastewater per day.

The DJB is in the process of upgrading and rehabilitating existing STPs to meet the prescribed norms and reduce the pollution load in the Yamuna.

While the DJB initially pledged to increase the sewage treatment capacity to 814 MGD by December this year, the deadline has been extended to June 2024, the DPCC report submitted to the NGT showed.

Similarly, the deadline for achieving a sewage treatment capacity of 964 MGD by June 2024 has been changed to December 2024.

The report indicates that the rehabilitation and upgrading of the existing STPs at Rithala, Kondli and Yamuna Vihar have been delayed by three to nine months.

The efforts to trap some major drains and sub-drains are running six months behind schedule. Similarly, the desilting of the sewer trunk and the laying of the sewer network in unauthorised colonies have surpassed the deadline. <https://theprint.in/india/significant-delay-in-several-major-yamuna-cleaning-projects-in-delhi-govt-report/1810407/>