

Preliminary Observations on Union Budget 2022-23

Focus on energy, environment and climate change

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The Union Budget of 2022-23 promises to take issues of sustainability and climate change seriously. And indeed, its framing on these issues is promising and forward looking. For example, it promises a low-carbon development strategy, tied to job creation, and sees the climate change agenda as an opportunity. The speech uses the term 'energy transition' explicitly, and also suggests that we 're-imagine' our cities as centres of sustainable living. Moreover, green energy and clean mobility systems are featured as 'sunrise opportunities'. This language, which appears throughout the speech rather than, as in the past, being shoehorned into a section on sustainability or climate change, promises an approach that takes seriously the objective of more thoroughly mainstreaming and integrating sustainability into India's economic and social future.

A look below the hood of the budget, however, presents, in practice, a far more mixed picture.

GatiShakti risks not adequately mainstreaming low carbon and climate-resilient development

The GatiShakti approach is a bold effort to stimulate growth through substantially enhanced capital expenditure in infrastructure in seven areas, including roads, railways, airports and so on. And there is no denying the need for such stimulus spending in a pandemic context. However, since such large capital investments will lock-in the trajectory of India's development, it would have been highly desirable to see greater evidence that these funds will also help steer India toward a low-carbon future and greater climate resilience. There is explicit reference to clean energy in the description of Gati Shakti, and some investments may indeed do so, such as investment in high-efficiency trains. But investment in roads, ports and other infrastructure, if poorly chosen, could fail to meet this bar. To actively mainstream sustainability, Gati Shakti ideally needs to stimulate the economy while enhancing low-carbon and climate resilient development. In implementation, it must also factor in the high likelihood of economic disruption due to climate impacts. Much of the infrastructure proposed here will survive well past mid-century, when extreme events will likely be more pronounced.

Energy Transition risks being one-dimensional: support for renewables but no consideration of coal and inadequate consideration of discoms

The Budget 2022-23 highlights energy transition by making it a part of the *Amrit Kaal* vision and an instrument for *Atmanirbhar Bharat*, while endorsing the Prime Minister's *Panchamrit* narrative. However, the allocations, thrust and incentives are not entirely consistent with this narrative. The allocation of an additional Rs. 19,500 crore for Production Linked Incentive (PLI) for manufacturing of high efficiency modules, with priority to fully integrated manufacturing units from poly silicon to solar PV modules, is an important step. The Finance Minister rightly signals the importance of bringing together renewable energy promotion with job creation through domestic manufacturing, which has received insufficient importance in the past. PLIs have worked to boost production. However, sustaining domestic manufacturing will also depend on technology intellectual property and access to critical minerals and rare earths. Incentives for innovation through budgetary allocations for research and

development would have been an important complementary step in the budget. Energy storage is another important pillar of energy transition and its demand will grow in tandem with the renewable energy capacity addition. Inclusion of energy storage systems (dense charging infrastructure and grid-scale battery) in the harmonised list of infrastructure is a welcome step that will facilitate credit availability for deployment.

India's energy transition will be incomplete without careful attention to the medium and long-term role of coal in India's energy economy. While India needs coal in the short term, we also need to prepare for the future. Starting a process of thinking about a long-term 'just transition' in coal-dependent states that focused on alternative jobs and livelihoods, would have sent an important signal. Moreover, despite the Finance Minister's nudge in past budgets for retirement and environmental compliance of old and polluting coal power plants, there has been no action at the state level. The budget missed an opportunity to create enabling incentives for state level action.

An allocation of Rs. 7,566 crores for the Revamped Distribution Sector Scheme may fall short for envisioned distribution network upgradation, which is critical for a transition to 21st century energy. While enabling energy transition requires higher investment in the distribution grid, the allocation remains at par with the past schemes. Thus, the burden of distribution network upgradation and smart metering risks being placed on the bankrupt discoms and cash-starved states. The budget provision to allow the states a fiscal deficit of 0.5 percent of GSDP, tied to power sector reforms, may help to meet part of the investment requirements, but this may exacerbate discoms' debt crisis in the short run.

The budget makes limited reference to green hydrogen, which was heavily discussed in the build-up to the budget. This may be appropriate, as it is important to lay-out well-developed plans for a new technology push, such as on green hydrogen, rather than issue hasty pronouncements. At the same time, it is important to lay the foundation for transformative clean tech innovation, and in the coming year it would be helpful to see steps in this direction, leading to a substantive announcement in a future budget.

Air Pollution: Missing piece with risk of back-sliding

The lack of attention to and even steps backward on air pollution is among the budget's biggest environmental shortfalls. The financial allocation for the Commission on Air Quality Management has decreased slightly and for the National Clean Air Programme remains flat. Beyond funds allocated to urban local bodies under the 15th Finance Commission grants, there is little progress on a cogent strategy to address this systemic issue. Given the longer-term goal of more ambitious ambient air quality improvements, there is an urgent need for greater investment by the government in regulatory, monitoring (especially in peri-urban and rural areas), and enforcement capacity. The budget fails to deliver on this front.

Surprisingly, the budget risks undercutting one of India's recent successes in the air pollution fight - the rapid expansion of LPG for cooking through the Pradhan Mantri Ujjwala Yojana (PMUY). The budget estimates for 2022-23 only allocate Rs. 4,000 crore for LPG subsidies (down from over 12,000 crores in 2021-22, and over 26,000 crores in 2020-21), presumably because LPG subsidies through direct benefit transfer were discontinued in May 2020 due to low global oil prices. Since then, however, domestic LPG prices have increased by over Rs. 300 per cylinder. The sharp price increases, coupled with the Covid-induced economic downturn is likely to render domestic LPG unaffordable to the majority of PMUY beneficiaries. To ensure that any gains made in transitioning households over the last several years from traditional fuels towards cleaner LPG are not squandered, these subsidies should be reinstated at the earliest. More importantly, the disappearance of the PMUY from policy

discourse is concerning since household cookstove smoke is the single largest source of air pollution nationwide, and contributes to over 680,000 deaths each year primarily among women and young children.

Two areas signal possible advances, although more information is needed: public transport and biomass for power plants. The nod towards a shift in the direction of public transport in urban areas, aided in part by changes to the EV ecosystem, is welcome. There is little in the way of detail, however, and such a large-scale transition towards public transport would require significant reform in transport policy, and investment in public transport and urban infrastructure beyond metro systems alone. Furthermore, there is no mention of any changes in rural transport policy beyond additional road-building. On power plants, indications have been made that there will be an increase in the use of biomass pellets in thermal power plants (potentially as an aid to stubble burning), yet it is unclear what structures have been put in place to facilitate this increase and whether it will actually lead to a decrease in stubble burning.

Transport: Holding the course on public transport along with a big push on electric vehicles

Among the stronger signals sent by the budget is support for accelerated adoption of electric vehicles. Here, the introduction of a battery swapping policy along with interoperability standards is an ambitious step. Because batteries account for a substantial share of the cost of an EV, and because space is tight in Indian cities and public charging stations are limited, enabling batteries to be provided as a service through a swapping policy would help unlock EV adoption. EVs received a boost in finances too as the allocation for the FAME India subsidy scheme was increased to INR 2,908 crores for FY 22-23, up from a revised estimate of INR 800 crores in FY 21-22. A further INR 3 crores have been allocated to the Production Linked Incentive (PLI) Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage which seeks to establish large-scale cell manufacturing capacity in the country. Taken together with the promise of special mobility zones for zero fossil fuel vehicles, EVs have received a strong shot in the arm in this budget.

Importantly, the promotion of EVs comes in the context of a broader emphasis on transit-oriented development an aspiration to promote public transport in urban areas. There is an overall, small increase in the budget for MRTS and Metro projects which has gone up to INR 23,875 Cr for FY 22-23, from a revised expenditure of INR 23,480 Cr in FY 21-22. This simultaneous emphasis on EVs and public transport is a useful signal. Moreover, this is embedded in a broader vision of urban transformation, the form of which is left to a high-level committee. These announcements signal the potential for important future changes in urban transportation.

Finance and Approvals

The budget signals an intention to mobilise funds for climate and energy investments through several measures: sovereign green bonds to mobilise finance for green public infrastructure projects; promotion of thematic funds for blended finance, in which the public share will be 20%; a fund with blended capital through NABARD for agricultural and rural startups, and innovative finance for appropriate metro systems at scale. While the amounts and modalities still need to be defined, these steps, and particularly the creation of green bonds, provides an important signalling effect of increasing interest in mobilising finance for sustainable development and a recognition of the role of the private sector in doing so.

Short Shift to Ecological Protection

A reduction in time required for land approvals for affordable housing, and an expanded scope of the single window portal for green clearances, indicate a continued focus on the government's aims of 'minimum government, maximum governance', but presents a risk of diluting environmental safeguards in pursuit of efficiency gains.

In addition, while the budget has foregrounded energy and climate action, at least in rhetorical terms, a similar emphasis on ecological protection and conservation is missing. For instance, the INR 44.6k Cr Ken-Betwa Link project, with the promise of five more such projects, includes provisions for clean power generation - hydro and solar - but these gains may come at the cost of a fragile ecological balance.

Conclusion: need for a strategic framework for green transition

Ultimately, a budget document cannot define the trajectory of a green transformation but ideally should allocate funds for its implementation and send signals about its importance and necessity. India needs institutions that can provide clear strategic thinking, long-term analytical capacity, and clear visioning to chart low-carbon, job-creating, and climate resilient transitions. An important role for future budgets is to allocate funds to support government institutions that can play these roles.