The Union Budget for 2013-14 focused on increasing India's economic growth rate, making budgetary allocations accordingly. Although the finance minister claims that this growth will be sustainable and equitable, this article argues that the development route proposed in the budget and the current pattern of economic development clash with the requirements of ecological sustainability and wildlife conservation.

In the latest union budget unveiled on 28 February 2013, the government revised, reaffirmed and revitalised a multitude of schemes, programmes and plans to restore India's diminishing glory of the galloping growth rate. Finance Minister (FM) P Chidambaram's clear message in this budget was to revive flagging economic growth. His mooal mantra (core belief) was, “Higher growth leading to inclusive and sustainable development” (Chidambaram 2013). To achieve this, there is increased allocation for programmes related to women and children, scheduled castes (SCs) and scheduled tribes (STs), and investments in renewable energy and drinking water. The budget also contained clear and strong incentives to escalate domestic coal production, energy supply, and raw material input for industries, in addition to intensifying industrialisation.

Much of this will likely come at the cost of India's remnant forests, for instance, the Delhi-Mumbai Industrial Corridor will industrialise the neighbourhood of 60 Protected Areas (PAs) for wildlife, and is likely to override any opposition from local communities. There have already been clashes between government ministries about "inviolate" areas and no-go forests, with the FM and the minister for coal crying foul over restrictions to mine or industrialise forest areas. Thus, who the budget includes and for whom it is sustainable requires a close examination of the types of incentives and investments the government has chosen to make, balance being a concern.

Trade-offs between development and growth are inevitable in a growing economy, but early planning and foresight can help us attempt a balance. India’s growth and budget, however, are lacking in this. A critical component of inclusive growth, i.e., social and economic equity, comes from raising per capita wealth and providing economic insurance for some of the poorest people. Currently, these services of extra income generation, provision of clean drinking water and some forms of insurance, such as that against adverse climatic conditions, are provided by high-quality ecosystems on which these people depend (Dasgupta 2010).

Measures such as per capita income, which is currently Rs 5,729 per month, ignore huge disparities, with urban households earning on average 85% more than rural households, and majority of India’s workforce earning less than Rs 70 per day (nCees 2007). For many of the rural households, forest products, for both use and sale, can form up to 76% of their income (Bahuguna 2000). In addition to this, ecosystems support poor people through the provision of alternatives in order to ensure food security, as well as free, clean drinking water supply (ibid). Much of these needs are met through common property land (McGranahan 1991) or PAs (Robbins et al 2009). There has been a steady decline of such common property land since the 1950s (Beck and Nesmith 2001), as well as threats to PAs from mining (csE 2011; Mazoomdaar 2013). Thus, an inclusive budget’s allocations would ideally be directed towards sustaining these spaces for their ecosystem services and natural capital. In this article, we focus on inclusive and sustainable development through the lens of ecological and environmental sustainability.

Budgetary Allocations

In an effort to ensure “economically and ecologically sustainable and democratically legitimate” (Chidambaram 2013) development, budgetary allocations have been made as shown in Table 1 (p 23).

Ministries responsible for ecological and environmental welfare have faced severe cuts since the budget of 2012-13. The Ministry of Environment and Forests (MoEF) was allotted Rs 2,629.41 crore, which fell to Rs 1,999.49 crore in the revised estimate, and the illusion of increased investment has been presently...
achieved by raising the budget to Rs 2,630.20 crore. The budget of the Ministry of New and Renewable Energy has been reduced by over Rs 400 crore since the revised budget of 2012, despite a stated interest in wind energy investment in the current budget. On the other hand, the already enormous budget of the Ministry of Roads, Transport and Highways (Rs 25,360 crore) has been further increased to add 3,000 km of road projects in Gujarat, Madhya Pradesh and Maharashtra.

The Ministry of Oil and Gas will announce “a policy to encourage exploration and production of shale gas” (Chidambaram 2013), while in the US, the world’s leader in shale gas extraction and use, drilling and hydraulic fracturing for shale gas are being increasingly criticised for the environmental and health risks they pose (Kargbo et al 2010). These include severe sinking of the ground, small earthquakes, and contamination of underground aquifers with additives used in the fracturing process (ibid: 5680).

Compared to the previous budget, there is a visible decline in taxpayers’ monies allocated to sectors that provide for inclusive and sustainable development, including nutrition and welfare schemes, and research in ecology, environment and oceanography. Massive amounts (~ Rs 3,000 crore) have been allocated for a “green revolution” in the north-eastern states. While agricultural support is important, encouraging intensive agriculture using fertilisers and pesticides through liberalised agrarian interventions will put tribes from the north-east into a situation that has brought farmers in many parts of Karnataka, Maharashtra and Andhra Pradesh to dire circumstances (Posani 2009), while laying wasteland that could have otherwise supported endangered wildlife (Khoshoo 1994; Matson et al 1997).

Meanwhile, the budget for transport has increased by Rs 3,000 crore and mining has received an infusion of Rs 300 crore, with new directives to make India self-sufficient in terms of coal production.

The infrastructural focus in the water sector betrays a technocratic sentiment. The 2013-14 Budget allocates Rs 1,400 crore towards arsenic removal from water purification plants. These plants are known to be ineffective in rural India for a variety of reasons outside their mere construction, including poor electricity, improper maintenance, sand-gushing problems, inability to pay for treated water, lack of user-friendliness and absence of community participation (Hossain et al 2005). This stop-gap approach distracts from more long-term, preventive measures of restoring local surface-water sources, which can mitigate dependency on groundwater. Government policies continue to ignore traditional water management systems that are more appropriate and sustainable in local contexts.

Rural development economists suggest that this could be due to the higher “value” of urban/semi-urban drinking water (in terms of return on investment) than the water used for agricultural irrigation (Chiplunkar et al 2012). We do not have a wise-use water policy yet and have not addressed regulation and equity in distribution across the various sectors. Conserving forests that are watersheds is an integral part of such planning, and the effects of destroying them in sensitive ecosystems is well known (Krishnaswamy et al 2006).

Providing for infrastructural development and improving transport and electric power services is not a problem in itself. The trouble is that these developments are adopted with a blinkered approach, which does not factor in ecological and environmental consequences, or plan for the mitigation of impacts. In the face of overwhelming evidence that ecosystems like forests comprise less than 20% of India’s land area, PAS comprise less than 4%, and that forest cover is declining (Puyravaud et al 2010), policymakers are yet unable to find the political will to preserve these meagre remnants that provide soil, water and climate services.

**Choosing Wisely**

High levels of income inequality slow gross domestic product (GDP) growth rates, as was seen in China at the turn of the century (Démurger 2001). India’s income inequality has also risen since the 1990s (OECD 2012), the era of the country’s economic liberalisation. Many scholars blame economic liberalisation for such economic inequalities (Smith 2008; Chang 2007), particularly since its prescriptions to value and improve a country’s economy do not take into consideration developing country contexts (Stiglitz 2002, 2012). The pressure to follow this stock path to development is promoted by international monetary institutions like the World Bank and the International Monetary Fund (Chang 2007; IMF 2013). However, the prescribed model of increasing resource consumption is infeasible in the long term, in the context of massive population growth and rapid urbanisation (Dasgupta 2001; GOI 2011).

This type of economic growth differs from development because development pays attention to the environment, which is affected by economic activity and the social consequences of economic policies (Peet and Hatrwick 2009). There have been strong arguments from developmental economists about the need to factor in ecological and environmental sustainability in our growth equations to provide us a more realistic measure of development, or an “adjusted GDP” (Dasgupta 2010). Their analysis suggests that GDP and even the Human Development Index (HDI) could increase for a period, while natural capital depreciates in quantity, until the point when the mismatch becomes obvious (ibid: 7). The erosion of our natural resource base

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Table 1: A Comparison of Budgetary Allocations to Different Ministries and Schemes

<table>
<thead>
<tr>
<th>Sector</th>
<th>Ministry</th>
<th>Budgetary Cuts</th>
</tr>
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<tbody>
<tr>
<td>1 Ports and Waterways</td>
<td>Ministry of Environment and Forests (MoEF)</td>
<td>Ministry of Environment and Forests (MoEF)</td>
</tr>
<tr>
<td>2 Roads</td>
<td>Ministry of New and Renewable Energy</td>
<td>Research in sectors of space, ecology, environment and oceanography</td>
</tr>
<tr>
<td>3 Coal, oil and gas</td>
<td>Social security, welfare and nutrition</td>
<td>Social security, welfare and nutrition</td>
</tr>
<tr>
<td>5 Green revolution in north-eastern India</td>
<td>Social security, welfare and nutrition</td>
<td>Social security, welfare and nutrition</td>
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</table>
is likely to pose severe scarcity of water, soil, nutrients, and carbon storage. Due to the time/space lag between cause and effect, it is often possible for economists to ignore natural resource scarcities (ibid: 8-9).

In the context of international pressures of trade and diplomacy, reworking global economics is understandably difficult and cannot be achieved by individual nations. However, there is reason to believe that developing countries stand to make considerable financial gains, if all countries were to include environmental costs in their valuation of economies (Srinivasan et al 2008). Fast developing nations also stand to lose the most by not changing their economic policies. China has recently been in the news for its stark deterioration of air quality. Much of this is linked to China’s high dependence on coal (76%) for electricity generation. Compare this to India’s 73% dependence on coal (Central Statistical Office 2012) and India’s industrialisation goals, and the problem becomes darker.

Further, economic policies may have geographically different impacts, affecting some citizens more than others (Smith 2008). Démurger (2001) describes China’s economic growth as inequitable, since the coasts have experienced rapid economic growth and consequently pollution, unlike the interiors. Coastal cities have seen rapid deterioration of basic environmental quality such as breathable air (Chan and Yao 2008). Also, while the rich can move away from polluted cities, the poor are often left to bear the brunt of a lost natural resource (Wang and Mullahy 2006). Similar situations can be expected in India where the costs of polluted water or soil degradation and climate change due to forest loss will be borne by the poorest, who depend on them and do not have the ability or the option to move away.

With this budget, the union government has continued a disturbing trend of systematically defanging conservation laws with bodies like the Cabinet Committee on Investment (CCI) that have forged ahead in spite of opposition to their philosophy and scope (Kothari 2012; Krishnadas et al 2012). For instance, the coal minister, Prakash Jaiswal, recently criticised Jayanthi Natarajan, the minister for environment and forests, for trying to create inviolate areas on forest department land. Despite being legally mandated as per the Forest Rights Act (Ministry of Tribal Affairs 2006), he felt that deeming these lands inviolate would pose unnecessary impediments to the extraction of coal and other minerals (Siddhanta 2013). The underlying premise is that anything that contributes to economic growth automatically overrides social, environmental and legal concerns.

**Misguided Development of ‘Backward’ Areas**

Three new industrial corridors have been proposed, passing through industrially backward, but ecologically important parts of the country. The proposed Mumbai-Bangalore Industrial Corridor will pass through the Sahyadris of Maharashtra, and even with minimalist assumptions of area covered (a swathe of 30 km on either side of the Bangalore-Mumbai Highway), will affect at least seven PAS. These include Ranebennur Wildlife Sanctuary, Attiveri Wildlife Sanctuary, Ghatalaprabha Wildlife Sanctuary, Sagarshwar Wildlife Sanctuary, Koyna Wildlife Sanctuary, Chandoli National Park and Karnala Wildlife Sanctuary. The Delhi-Mumbai Industrial Corridor will affect the surrounds of at least 60 PAS including Ranthambhore Tiger Reserve, Sariska, Keoladeo-Ghana, Chambal, Mount Abu, Kuno-Palpur and Blackbuck National Park.1 The Chennai-Bangalore Industrial Corridor will slice through the Koundinya Wildlife Sanctuary in Andhra Pradesh, which is home to the largest population of Asian elephants.

The multifarious negative consequences of roads for forests and biodiversity is well documented (Laurance, Goosem and Laurance 2009), and in spite of opposition by the National Board for Wildlife to road development through PAS and wildlife corridors (Shankar Raman 2011), the MoEF has relaxed its guidelines to issue environment clearances to linear projects such as roads, pipelines, etc (MoEF 2013).

Once again, China provides a compelling example of the ecological consequences of a single-minded approach to maintaining high economic growth. Exploitation and unplanned development of rivers and waterways have contributed to the extinction of the Baiji (the Chinese river dolphin), the Yilon Carp, Père David’s Deer and South China Tiger, and the near extinction of the Chinese alligator and the Chinese sturgeon (Nyhus 2008; Smith et al 2008; Zhigang and Harris 2008; Thorbjarnarson et al 2002; Qiwei 2010; Zhou 2011).

China’s growth rate, which Indian policymakers seem keen to emulate, has led to an irrecoverable loss of ecological function that China is now trying to fix (Wen and Chen 2008). An indicator of “development” is a nation’s ability and commitment to preservation of its wildlife and natural resources. Current growth measures appear to be favouring a few rich and powerful citizens, while subsistence dwellers subsidise their costs by bearing the brunt of the downside of development (e.g. dams, mines, etc).

Overall, the environment and sustainability section of the 2013 budget has merely been glossed over, simply reduced to alternative energy production and waste management. There is no recognition of ecosystem services, the role of wildlife tourism in bringing in foreign exchange, and absolutely nothing for proactive conservation and forest protection.

**The Future**

While the intent to keep India on the growth track in order to ensure sustainable and inclusive development is noble, there are several alternatives to the current economic growth model. For instance, investment in anti-corruption measures and better land use planning for ecosystem services and wildlife can increase economic growth in both the short and long term.

The World Bank has identified corruption as one of the greatest obstacles to economic and social development (World Bank 2011). In the decade before 2011, India reportedly lost Rs 1,555 thousand crore to corruption alone. In 2012,
the World Bank alleged that corruption was rampant among highway projects that it had funded in India, pointing fingers at the National Highways Authority of India (NHAI), which simply buried the matter (Dash 2012). If corruption levels were reduced significantly, India’s GDP would be expected to grow by at least an additional 1.5% every year (Abdulrahim 2009). Corruption also reduces government revenues (ibid: 357), thus contributing to India’s fiscal deficit. Choosing to attack corruption as a development strategy could be equally effective, if not more so, than simply pitting economic growth against natural resource and wildlife conservation.

Corruption has also affected natural resource extraction sectors such as coal mining (Badkar 2012; CAG 2012). The government has lost crores of rupees in revenue due to feudal systems of coal block allocation (Rajeshkar 2013a, 2013b; Rajeshkar and Celestine 2012). Surprisingly, we remain tied to the archaic and third-world practice of overharvesting raw minerals and selling them to nations, who then sell the processed products back to us. While the FM stridently cries for more coal to fire the power plants, inefficient grids and outdated transmission systems, flagrant thefts are causing precipitous losses to the already scarce power resource.

Questions of sustainability never arise on the political horizon, and do not garner any leverage. Further, there have been multiple calls to move away from high dependence on coal on account of its ecological, environmental, and public health costs (Menon 2011, 2013). Yet bodies like the CCI are working overtime to fast track clearances without adequate environmental scrutiny (Press Information Bureau 2013).

As urbanisation increases through direct investment in infrastructure, we need more ingenuity to create environmentally efficient systems of resource utilisation and land use planning. It is time to recognise and incorporate in development policy the physical value and economic value (Redford and Adams 2009; Liu et al 2010), as well as the psychological value of biodiversity for human well-being (Fuller et al 2007). Responsible land use planning has to meet the needs of multiple livelihoods, including those dependent on wildlife and wild lands, and the needs of biodiversity. Incentivising industry and extractive resource-use across large swathes of India’s countryside has to be counterbalanced with biologically viable natural spaces for wildlife.

Simultaneously modifying so many parts of India to such unsustainable human uses robs us of ecological insurance. As the government spends less on social welfare, its investments are ensuring that any welfare from nature is also negated. It is easy to be distracted by the argument that increasing economic growth will provide for a populous nation like India. The Indian economic miracle has made a few Indians very rich and generated a consumerist middle class, at the expense of wildlife, wild land and the people who depend on them.

Economic policy cannot be constructed without analysing its ecological consequences, particularly if marginalised communities are subsidising India’s GDP growth. If equity is our goal, then we need to start thinking of ecological security for all citizens, and also develop an egalitarian perspective on caring for biodiversity.

**NOTE**

1 See DMICDCL (2013). The details of the project are provided in the website. The website has a separate page for each state under consideration. We obtained the PA information independently by looking at maps.

**REFERENCES**


