

Ashish Kothari

# Another India, Another World. Towards Radical Ecological Democracy<sup>1</sup>

## Abstract

65 years after the beginning of Independence, India continues to struggle to meet the basic needs of much of its population. There remains widespread poverty, hunger, malnutrition, unemployment, inequality and other socio-economic deprivations. Additionally, there are increasing indications of ecological unsustainability. A fundamentally flawed model of development, its flaws heightened in the post-1991 phase of economic globalization, is part of the cause. As a counter-current, however, peoples' initiatives at sustainable and equitable well-being in various sectors are growing and some policy shifts have also taken place in this direction. Building on this, an alternative framework of well-being is proposed, here called Radical Ecological Democracy. This involves a new political governance with decentralized decision-making embedded within larger, ecologically and culturally defined landscapes, a new economics that respects ecological limits and democratizes both production and consumption, and a new cultural and knowledge-based society that values diversity, collective synergism, and public innovation. The combination of peoples' resistance to destructive development and alternative, solution-based initiatives, with support from other sections of society, can make India a key actor towards a sustainable, just, and equitable world.

**Keywords:** *Sustainability, Democracy, Equity*

## Zusammenfassung

65 Jahre nach Beginn der Unabhängigkeit kämpft Indien weiterhin darum, den Grundbedürfnissen des Großteils seiner Bevölkerung gerecht zu werden. Noch immer sind Armut, Hunger, Unterernährung, Arbeitslosigkeit, Ungleichheit und andere sozioökonomische Entbehrungen weit verbreitet. Darüber hinaus gibt es zunehmende Hinweise darauf, dass die Ökologie nicht nachhaltig ist. Ein grundlegend fehlerhaftes Entwicklungsmodell, dessen Mängel in der Phase der wirtschaftlichen Globalisierung (nach 1991), zunahm, ist Teil der Ursache.

Als Gegenströmung wachsen in der Bevölkerung allerdings die Initiativen für nachhaltiges und gerechtes Wohlergehen in verschiedenen Bereichen und es haben bereits auch einige politische Veränderungen in diese Richtung stattgefunden. Darauf aufbauend wird ein alternativer Rahmen des Wohlbefindens vorgeschlagen, hier als Radikale Ökologische Demokratie bezeichnet. Dieser beinhaltet eine neue politische Regierung mit

dezentraler Entscheidungsfindung, eingebettet in größere, ökologisch und kulturell definierte Landschaften, eine neue Wirtschaft, die ökologische Grenzen respektiert und sowohl Produktion als auch Verbrauch demokratisiert sowie eine neue Kultur- und Wissensgesellschaft, welche Vielfalt, gemeinsame Synergie und öffentliche Innovation schätzt.

Die Kombination aus dem Widerstand der Bevölkerung gegen zerstörerische Entwicklung und alternativen lösungs-basierten Initiativen, mit Unterstützung aus anderen Teilen der Gesellschaft, kann Indien zu einem Schlüsselakteur hin zu einer nachhaltigen, gerechten und gleichberechtigten Welt machen.

**Schlüsselworte:** *Nachhaltigkeit, Demokratie, Gerechtigkeit*

## Headlong towards unsustainability and conflict

India, like the world at large, is on a dangerous path of unsustainability and inequity. While a couple of hundred million people have undoubtedly benefited from 65 years of post-Independence 'development', several hundred million others continue to suffer from deprivations of one or the other kind. Depending on which measure one takes and whose estimates one believes, anything between a quarter and three-quarters of India's population suffers from economic poverty, malnutrition and under-nutrition, lack of safe drinking water and sanitation, unemployment or underemployment, inadequate shelter, and other such situations that are violations of minimum standards of human rights and well-being. These are often so serious as to cause irreversible health damage, premature mortality and suicides. Nor do they have the options to reach full human potential through learning, socio-cultural, and political opportunities.<sup>2</sup>

To this has been added ecological unsustainability and its socio-economic impacts. A 2008 report suggests that India has the world's third biggest ecological footprint, that its resource-use is already twice of its bio-capacity, and that this bio-capacity itself has declined by half in the last few decades (GFN / CII 2008). Natural ecosystems are under stress and decline everywhere, with exceptions only in the case of some protected areas and community conserved areas<sup>3</sup>; wild and agricultural biodiversity are under varying rates of erosion as vast monocultures take over; well over half the available waterbodies are polluted often even beyond agricultural use; two-thirds of the land is degraded to various

levels of sub-optimal productivity; air pollution in several cities is amongst the world's highest; 'modern' wastes, including electronic and chemical, are being produced at rates far exceeding our capacity to recycle or manage.<sup>4</sup> Economic globalization since 1991 has increased rates of diversion of natural ecosystems for 'developmental' purposes, and rates of resource exploitation for domestic use and exports (Shrivastava/Kothari 2012). Climate change impacts are being felt in terms of erratic weather and coastal erosion, and the country has little in the way of climate preparedness, especially for the poor who will be worst affected (Bidwai 2011; Thakkar 2009). Projections based on the historic trend of materials and energy use in India also point to serious levels of domestic and global environmental impact if India continues on a development trajectory modeled on industrialized countries (Singh et al. 2012, p. 60–69).

Environmental destruction reinforces deprivation of various kinds, sustaining or worsening poverty, hunger, unemployment, and disease. Several policy pronouncements of the Government of India, such as the National Environment Policy 2006 or the Approach Papers of various Five Year Plans, have promised the integration of development and environment. But no comprehensive framework for this has yet been developed, and there are no indicators in place to assess progress. An integrated approach to human well-being that enhances the economic, social, and political opportunities for those traditionally or currently deprived, curbs the obscene levels of wealth and consumption of the super-rich, conserves nature and sustains environmental resilience, is not evident in the priorities of the government.

Hopeful countercurrents do exist. There are scattered positive initiatives by the state relating to poverty, environment, employment, and empowerment, including an attempt to reduce carbon intensity of some sectors, and commission a report on moving towards a low carbon future (Rao et al. 2009). There is widespread work by many communities, civil society organizations, institutions and private sector agencies, towards alternative approaches for well-being. Building on these, India (again, like the world), desperately needs fundamental changes in pathways of development and governance if holistic human well-being is to be achieved, even as it strives for better implementation and strengthening of progressive policies and programmes that already exist.

Is this possible? Can India show a pathway towards sustainability and equity that would be a beacon for the rest of the world (while itself learning from others)?

### **Sustainable and Equitable Well-being: A Framework for Radical Ecological Democracy**

If human well-being is to be achieved without endangering the earth and ourselves, and without leaving behind half or more of humanity, the notion of well-being itself needs rethinking. It is not about market-led dreams of ever-increasing material accumulation, but rather about having secure ways of meeting basic needs, being healthy, having access to opportunities for learning, being employed in satisfactory and meaningful tasks, having good social relations, and leading culturally and spiritually fulfilling lives.

Broadly, such a framework of human well-being could be called Radical Ecological Democracy (RED): a social, political

and economic arrangement in which all citizens have the right and full opportunity to participate in decision-making, based on the twin fulcrums of ecological sustainability and human equity (Kothari 2009, p. 401–409; Shrivastava/Kothari 2012).

RED is based on a set of principles, most of which are very different from the values of today's dominant system. These are laid out briefly.

#### **Principles or Tenets of Radical Ecological Democracy**

##### *Principle 1: Ecological integrity and limits*

The functional integrity and resilience of the ecological processes, ecosystems, and biological diversity that is the basis of all life on earth, respecting which entails a realization of the ecological limits within which human economies and societies must restrict themselves.

##### *Principle 2: Equity and justice*

Equitable access of all human beings, in current and future generations, to the conditions needed for human well-being – socio-cultural, economic, political, ecological, and in particular food, water, shelter, clothing, energy, healthy living, and satisfying social and cultural relations – without endangering any other person's access; equity between humans and other elements of nature; and social, economic, and environmental justice for all.

##### *Principle 3: Right to meaningful participation*

The right of each person and community to meaningfully participate in crucial decisions affecting her/his/its life, and to the conditions that provide the ability for such participation, as part of a radical, participatory democracy.

##### *Principle 4: Responsibility*

The responsibility of each citizen and community to ensure meaningful decision-making that is based on the twin principles of ecological integrity and socio-economic equity, conditioned in the interim by a 'common but differentiated responsibility' in which those currently rich within the country take on a greater role and/or are incentivised or forced to give up their excessively consumptive lifestyles in order for the poor to have adequate levels of human security. This principle should also extend to the impact a country has on other countries, with a 'do no harm' component as a basic minimum component.

##### *Principle 5: Diversity*

Respect for the diversity of environments and ecologies, species and genes (wild and domesticated), cultures, ways of living, knowledge systems, values, economies and livelihoods, and politics (including those of indigenous peoples and local communities), in so far as they are in consonance with the principles of sustainability and equity.

##### *Principle 6: Collective commons and solidarity*

Collective and co-operative thinking and working founded on the socio-cultural, economic, and ecological commons, respecting both common custodianship and individual freedoms and innovations within such collectivities, with inter-personal and inter-community solidarity as a fulcrum.

*Principle 7: Rights of nature*

The right of nature and all its species, wild or domesticated, to survive and thrive in the conditions in which they have evolved, along with respect for the 'community of life' as a whole.

*Principle 8: Resilience and adaptability*

The ability of communities and humanity as a whole, to respond, adapt, and sustain the resilience needed to maintain ecological sustainability and equity in the face of external and internal forces of change, including through respecting conditions, like diversity, enabling the resilience of nature.

*Principle 9: Subsidiarity and ecoregionalism*

Local rural and urban communities, small enough for all members to take part in face-to-face decision-making, as the fundamental unit of governance, linked with each other at bioregional, ecoregional and cultural levels into landscape/seascape institutions that are answerable to these basic units.

*Principle 10: Interconnectedness*

The inextricable connections amongst various aspects of human civilization, and therefore, amongst any set of 'development' or 'well-being' goals – environmental, economic, social, cultural, and political.

*Adapted from:* Peoples' Sustainability Treaty on Radical Ecological Democracy, <http://radicalecologicaldemocracy.wordpress.com/>

Taking the above principles together (and others to be added as practice and thought progresses), RED is a continuous and mutually respectful dialogue amongst human beings, and between humanity and the rest of nature. It is also not one solution or blueprint, but a great variety of them, linked through a common set of values such as those listed in Box 1 above. RED is at once a political, economic, ecological, cultural, and philosophical paradigm, or set of paradigms.

### Radical Ecological Democracy in India

A number of crucial elements of RED can be described, illustrated by practical and policy initiatives that are already visible in India.

#### Decentralised and embedded governance

A crucial fulcrum of RED is decentralised, direct democratic governance. This starts from the smallest, most local unit, and builds to expanding spatial units. In India, the Constitution mandates governance by panchayats (elected councils) at the village and village cluster level, and by ward committees at the urban ward level. However, these are representative bodies, subject to the same pitfalls (albeit at smaller levels) that plague representative democracy at higher levels, including elite capture. It is crucial to empower the gram sabha (village assembly) in rural areas, and the area sabha (smaller units within wards) in cities, or other equivalent body where all the adults of the individual hamlet or village or urban colony are conveniently able to participate in decision-making. All critical decisions relating to local natural resources or environmental issues should be taken at this level, with special provision to facilitate the equal participation of women and other underprivileged sections.

Already there are examples of this. Several villages have moved towards self-governance or holistic planning, with the assembly of all adults (gram sabha) taking key decisions.<sup>5</sup> In cities like Bengaluru<sup>6</sup> and Pune<sup>7</sup>, residents are increasingly empowering themselves to be part of planning and budgeting, though there is as yet no urban area where decentralised governance has gone the distance.

Larger level governance structures need to essentially emanate from these basic units. These would include clusters or federations of villages with common ecological features, larger landscape level institutions, and others that in some way also relate to the existing administrative and political units of districts and states (more on this below).

#### Localisation

Localisation, a trend diametrically opposed to economic globalization, is based on the belief that those living closest to the resource to be managed (the forest, the sea, the coast, the farm, the urban facility, etc), would have the greatest stake, and often the best knowledge, to manage it. Of course this is not always the case, and in India many communities have lost the ability because of two centuries of government-dominated policies, which have effectively crippled their own institutional structures, customary rules, and other capacities. Nevertheless a move towards localization of essential production, consumption, and trade, and of health, education, and other services, is eminently possible if communities are sensitively assisted by civil society organizations and the government. Indeed the 73<sup>rd</sup> and 74<sup>th</sup> Amendments to the Indian Constitution (mandating decentralization to rural and urban communities), taken to their logical conclusion, are essentially about localisation.

There are thousands of Indian initiatives at decentralized water harvesting, biodiversity conservation, education, governance, food and materials production, energy generation, waste management, and others (in both villages and cities). Sustainable agriculture using a diversity of crops has been demonstrated by Dalit<sup>8</sup> women farmer of Deccan Development Society, communities working with Green Foundation in Karnataka<sup>9</sup>, farmers of the Beej Bachao Andolan (Save the Seeds Movement)<sup>10</sup>, and the Jaiv Panchayat network of Navdanya<sup>11</sup>. Thousands of community-led efforts exist in Odisha, Maharashtra, Uttarakhand, Nagaland, and other states, at protecting and regenerating forests, wetlands, grasslands, and coastal/marine areas, as also wildlife populations and species. Water self-sufficiency in arid, drought-prone areas has been demonstrated by hundreds of villages, through decentralised harvesting and strict self-regulation of use, such as in Alwar district of Rajasthan<sup>12</sup> by Tarun Bharat Sangh. In Bhuj town (Kachchh, Gujarat<sup>13</sup>), several civil society groups have teamed up to mobilize slum-dwellers, women's groups, and other citizens into reviving watersheds and creating a decentralized water storage and management system, manage solid wastes, generate livelihood for poor women, create adequate sanitation, and provide dignified housing for all.<sup>14</sup> Several cities too are beginning to stress decentralised water harvesting and other ways to reduce their parasitic dependence on the countryside, though this is still very preliminary.

For localization to succeed, it is crucial to deal with the socio-economic exploitation that is embedded in India's caste system, inter-religious dynamics, and gender relations. Such in-

equities can indeed be tackled, as witnessed in the case of dalit women gaining dignity and pride through the activities of Deccan Development Society in Andhra, dalits and 'higher' castes interacting with much greater equality in Kuthambakkam village of Tamil Nadu<sup>15</sup>, and adivasi tribal children being empowered through the Narmada Bachao Andolan's<sup>16</sup> jeevan shalas.

### **Working at the landscape level**

The local and the small-scale are not by themselves adequate. For many of the problems we now face are at much larger scales, emanating from and affecting entire landscapes (and seasces), countries, regions, and indeed the earth. Climate change, the spread of toxics, and desertification, are examples. Landscape and trans-boundary planning and governance (also called 'bioregionalism', or 'ecoregionalism', amongst other names), are exciting new approaches being tried out in several countries and regions. These are as yet fledgling in India, but some are worth learning from. The Arvari Sansad (Parliament) in Rajasthan brings 72 villages in the state of Rajasthan together, to manage a 400 sq.km river basin through inter-village coordination, making integrated plans and programmes for land, agriculture, water, wildlife, and development. In Maharashtra, a federation of Water User Associations has been handed over the management of the Waghad Irrigation Project, the first time a government project has been completely devolved to local people.

Building on decentralized and landscape level governance and management, and in turn providing it a solid backing, would be a rational land use plan for each bioregion, state and the country as a whole. This plan would permanently put the country's ecologically and socially most fragile or important lands into some form of conservation status (fully participatory and mindful of local rights and tenure). Such a plan would also enjoin upon towns and cities to provide as much of their resources from within their boundaries as possible, through water harvesting, rooftop and vacant plot farming, decentralized energy generation, and so on; and to build mutually beneficial rather than parasitic relations with rural areas from where they will still need to take resources. The greater the say of rural communities in deciding what happens to their resources, and the greater the awareness of city-dwellers on the impacts of their lifestyles is, the more this will happen.

Ultimately as villages get re-vitalized through locally appropriate development initiatives, rural-urban migration which today seems inexorable, would also slow down and may even get reversed ... as has happened with dozens of villages in many states of India, where decentralised water work has revitalized agriculture, or where rural industry and handicrafts have provided adequate livelihoods.

### **Meaningful learning, education and health**

The most relevant knowledge for RED will also be that which disregards the artificial boundaries that western forms of education and learning have created, between the 'physical', 'natural', and 'social' sciences, and between these sciences and the 'arts'. Ecological and human systems are not constituted by such neat boxes, landscapes are not amenable to easy boundaries between the 'wild' and the 'domesticated', the 'natural' and the 'human'. The more we can learn and teach and transmit knowledge in ho-

listic ways, giving respect not only to specialists but also to generalists, the more we can understand nature and our own place in it. A number of alternative education and learning initiatives attempt to do this: schools like pachasaale of the Deccan Development Society, in the state of Andhra Pradesh, and the jeevan shalas (life schools) of the Narmada Bachao Andolan (Save the Narmada Movement), struggling to save the Narmada valley and its inhabitants from a series of mega-dams; colleges like the Adivasi Academy at Tejgadh, Gujarat<sup>17</sup>; open learning institutions like the Bija Vidyapeeth in Dehradun, Uttarakhand<sup>18</sup> and Shikshantar's Swaraj University, Rajasthan.<sup>19</sup>

Similarly, several groups are working on public health systems that empower communities to deal with most of their health issues, through combining traditional and modern systems, and through strengthening the links between safe food and water, nutrition, preventive health measures, and curative care.

### **Employment and livelihood**

The combination of localization and landscape approaches also provides massive opportunities for livelihood generation, thus tackling one of India's biggest ongoing problems: unemployment. Land and water regeneration, and the resulting increase in productivity, could provide a huge source of employment, and create permanent assets for sustainable livelihoods. The National Rural Employment Guarantee Act (NREGA), one of the current government's flagship programmes, as also other schemes such as the Jawaharlal Nehru National Urban Renewal Mission (JNNURM), could well be oriented towards such environment-employment combinations. Also important in the new 'green job' deal would be a renewed emphasis on labour-intensive rural industries and infrastructure, including handlooms and handicrafts, local energy projects, rural roads, and others that people can be in control of, building on their own traditional knowledge or with easily acquired new skills. In Jharkhand, a state government initiative Jharcraft has revived handloom, silk, metalwork, art, and other crafts and handmade products, and enhanced livelihoods of over 250,000 families in just 6 years.<sup>20</sup>

The United Nations Environment Programme and the International Labour Organisation estimate that there is considerable employment opportunity in 'green jobs', defined as 'decent work' that helps to tackle the ecological crises we face. For instance, organic, small-scale farming can employ more people than conventional chemical-based agriculture. Renewable energy generation, and energy efficiency, as yet in its infancy, could provide jobs to tens of millions. For both farming and energy (generation and efficiency), as also several other sectors, such as transportation, energy-efficient building, decentralized manufacture, recycling, forestry, and others, the potential in India must be truly astounding (for instance, bamboo work alone could provide several million jobs). A comprehensive study on this potential, and policy measures to support it, are urgently needed.

### **Economic democracy**

RED requires not only a fundamental change in political governance, but also in economic relations of production and consumption. Globalized economies tend to emphasize the democratization of consumption (the consumer as 'king' ... though even this hides the fact that in many cases there is only a mirage of choice), but not the democratization of production. This can

only change with a fundamental reversal, towards decentralized production which is in the control of the producer, linked to predominantly local consumption which is in the control of the consumer.

Village-based or 'cottage' industry, small-scale and decentralized, has been a Gandhian proposal for decades. Such industry would be oriented to meeting, first and foremost, local needs, and then national or international needs. Since this would be a part of a localized economy in which producer-consumer links are primarily (though not only) local, the crucial difference between such production and current capitalist production is that it is for self and others, primarily as a service and not for profits. Many producer companies have been started by farmers and craft persons in different parts of the country; there are also hundreds of 'social enterprise' companies that are explicitly and predominantly oriented at reaching social and environmental benefits to poor people.

Groups of villages, or villages and towns, could form units to further such economic democracy. Some of the initiatives mentioned above are trying to expand their reach, to clusters of settlements that could through mutual exchange and support become regions of relatively self-sufficiency, at least in terms of basic needs.

Money may remain an important medium of exchange, but would be much more locally controlled and managed rather than controlled anonymously by international financial institutions and the abstract forces of global capital operating through globally networked financial markets. Considerable local trade could revert to locally designed currencies or barter, and prices of products and services even when expressed in money terms could be decided between givers and receivers rather than by an



Fig. 1: Akhupadar village CFR exercise, Odisha © Ashish Kothar

impersonal, non-controllable distant 'market'. A huge diversity of local currencies and non-monetary ways of trading and providing/obtaining services are already being used around the world; India could build on its age-old practice of barter (with appropriate modifications to rid it of local exploitation) and also decentralize and diversify exchange.

Financial management itself needs to be radically decentralized, away from the mega-concentrations that today's banks and financial institutions represent. These globalized institutions and the free rein given to their speculative tendencies, have been at the heart of the latest financial crisis. But simultaneously, across the world a host of localized, community-based banking and financing systems have also cropped up over the last couple of decades; several micro-credit programmes are exploitative and leave out the most marginalized sections, but many self-help programmes managed by communities themselves (with civil society facilitation) have really helped the very poor.

### The role of the state

Though communities (rural and urban) will be the fulcrum of the alternative futures, the state will need to retain, or rather strengthen, its welfare role for the weak (human and non-human). It will assist communities in situations where local capacity is weak, such as in generating resources, providing entitlements, and ensuring tenurial security. It will rein in business elements or others who behave irresponsibly towards the environment or people. It will have to be held accountable to its role as guarantor of the various fundamental rights that each citizen is supposed to enjoy under the Constitution of India, including through appropriate policy measures such as the Right to Information Act the government brought in in 2005. Finally, it will retain a role in larger global relations between peoples and nations.

### International relations

The reversal of economic globalization does not entail the end of global relations! Indeed there has always been a flow of ideas, persons, services and materials across the world, and this has often enriched human societies. RED, with its focus on localized economies and ethical lifestyles, learning from each other, would actually make the meaningful flow of ideas and innovations at global levels much more possible than a situation where everything is dominated by finance and capital.

Indeed one of the most beneficial exchanges would be the various ideas and visions of alternatives that are being discussed or practiced across the world. 'Buen vivir' (with various variants) in south America, 'degrowth' in Europe, accounts of well-being and the 'happy planet' approach promoted by the New Economics Foundation, and many others are exciting traditional or new approaches that resonate with Radical Ecological Democracy; there could be much mutually beneficial learning between India and the indigenous peoples, local communities, and other civil society organizations of these regions (Gudynas 2011, p. 441-47; National Economics Foundation 2009, 2012; www.degrowth.org).

More practically, India needs to build much better relations with neighbouring countries, based on our common ecological, cultural, and historical contexts. Transboundary landscape and seascape management would be an example, including 'peace zones' oriented towards conservation where there are cur-

rently intense conflicts (e.g. the Siachen glacier between India and Pakistan). More globally, strengthening various treaties on peace, rights, and the environment, are a key agenda; these could dovetail into a new framework for the 'development' goals after 2015 (when the current Millennium Development Goals are up for review), a framework that has internal coherence and a unifying set of principles, and is based on sustainability and equity as core themes running across all goals (Kothari 2013).

### Is such a transformation possible?

There is no easy path to RED. It will entail considerable struggle, with peoples' movements leading the way through both resistance and constructive work. There will be hurdles by those in power, even strong retaliation, as already seen in a number of brutal state crackdowns on peaceful resisters. Nevertheless, there are ample indications that a transformation is possible over the next few decades. This will entail at least the following elements:

1. *People's resistance:* There has been a marked growth in mass movements against destructive development projects, especially amongst communities most impacted by displacement or the degradation of their environment. These are often (but not always) supported by civil society groups and networks such as the National Alliance of Peoples Movements. At any given time in the 2000s there have been several hundred such movements spread across India (though there exists no comprehensive documentation).
2. *Grassroots alternatives:* As described above, there are widespread initiatives towards meeting basic needs that are ecologically sustainable, more equitable, just and locally governed. Though networking amongst these, to synergize and present a critical mass challenge to mainstream economy and policy, is still weak, it is increasing.
3. *Policy shifts and reforms:* Civil society advocacy and initiatives by progressive individuals from within the state itself, has led to some policy shifts and reforms that are against the general trend of economic globalization and political centralization. Three recent legislative measures are examples: the Right to Information Act 2005, the National Rural Employment Guarantee Act 2006, and the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006. Each of these has a base in people's initiatives; e.g. the RTI emerged from grassroots struggles in Rajasthan, Delhi and elsewhere, led by groups like the Mazdoor Kisan Shakti Sangathan (MKSS) demanding access to official records on employment and funding.
4. *Technological shifts:* Many technological innovations are making human life not only less dreary but also more ecologically sensitive, in industrial and agricultural production, energy, housing and construction, transportation, household equipment. There is also growing appreciation of the continued relevance of many traditional technologies, e.g. in agriculture, textiles, other manufacturing, and other fields. Countries in a 'developing' stage, have the unprecedented opportunity to leapfrog directly from some of the most wasteful industrial, energy, and transportation technologies, into socially-appropriate super-efficient ones, provided they are given the opportunity and support to do so by the industrialized world.

5. *Financial measures:* A range of reforms in macro-economic and fiscal policies have been suggested to move towards greater sustainability. Shifting subsidies from ecologically destructive practices such as chemical-heavy agriculture, to truly sustainable ones like organic farming, are one powerful set of changes that a number of civil society groups have demanded in India. Taxes that reflect something of the true value of natural resources being used by urban and industrial-scale consumers, discourage ecologically destructive practices including consumerism, and reduce income disparities, would also contribute substantially. Several states are beginning to announce such measures, though progress is slow.
6. *Awareness, education, capacity:* Ecological and social awareness and the capacity to deal with associated problems has risen exponentially in the last 2–3 decades. Yet amongst decision-makers, and business elites, it remains particularly poor. A transition to RED will require a massive campaign to spread awareness about the multiple crises we face, their root causes, and build capacity to spread meaningful solutions.

*India is perhaps uniquely placed to achieve the transformation to RED.* This is for a variety of reasons: its thousands of years of history and adaptation (including ancient democratic practices that perhaps pre-date even the famed Greek republics), its ecological and cultural diversity, its resilience in the face of multiple crises, the continued existence of myriad lifestyles and world-views including of ecosystem people who still tread the most lightly on earth, the powerful legacy of Buddha, Gandhi, Ambedkar and other progressive thinkers, the adoption of revolutionary thinking from others like Marx, zealously guarded practices of democracy and civil society activism, and the very many peoples' movements of resistance and reconstruction. But of course it cannot do this alone, it will need to convince, teach, and learn from other countries and peoples which it has done for many centuries, too, but now in an entirely new and far more challenging context.

### Notes

- 1 Parts of this article are adapted from or based on Kothari (2012; 2013).
- 2 Detailed facts and analyses on these are available in a series of UNDP Human Development Reports, a recent report by the Working Group on Human Rights



Fig. 2: Anti-Bhopalpatnam dam rally, Hemalkasa, Maharashtra © Ashish Kothari

- (WGHR 2012); Shrivastava and Kothari (2012) contains a detailed account of how economic globalization has added to the deprivations.
- 3 The claim by the Indian Government that forest cover has been increasing, made in its report on the Millennium Development Goals (Government of India 2011), has been strongly contested by researchers (Puyravaud et al. 2010, p. 390–94; Rajshekhhar 2012)
  - 4 Honest official reporting on these is uncommon, sometimes found in the annual Economic Surveys of Government of India, and occasionally in the Ministry of Environment and Forest's annual State of Environment reports; more is found in independent reports such as the State of India's Environment reports by Centre for Science and Environment. Facts and analyses for some of the trends are given in Shrivastava /Kothari (2012).
  - 5 Several examples are given in Shrivastava / Kothari (2012); see also Kalpavriksh 2012.
  - 6 Bengaluru (formally: Bangalore) = capital of the Indian state of Karnataka
  - 7 Pune = metropolis in the state of Maharashtra
  - 8 Dalit = downtrodden people outside the caste-system
  - 9 Karnataka = state in South West India
  - 10 Beej Bachao Andolan = a non-formal collective of small farmers and activists
  - 11 Navdanya = a network of seed keepers and organic producers spread across 16 states in India
  - 12 Rajasthan = largest state of Republic of India by area
  - 13 Kachchh = a district of Gujarat state in western India
  - 14 For further details and references, see Shrivastava/Kothari (2012).
  - 15 Tamil Nadu = state in South East India
  - 16 Narmada = one of the biggest and holiest rivers of India
  - 17 Tejgadh = village of the state of Gujarat
  - 18 Dehradun = capital city of the state of Uttarakhand
  - 19 <http://www.ddsindia.com/www/psaale.htm>; <http://www.ddsindia.com/www/Education.htm>; <http://www.narmada.org/ALTERNATIVES/jeevanshalas.html>; <http://adharshilask.tripod.com/aboutadh.html>; <http://www.Adivasiacademy.org.in>; <http://www.navdanya.org/earth-university>; [www.bhoomi.org](http://www.bhoomi.org); [www.swarajuniversity.org](http://www.swarajuniversity.org)
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## Ashish Kothari

born 1961. Founding member of Indian environmental group Kalpavriksh; taught at the Indian Institute of Public Administration; coordinated India's National Biodiversity Strategy and Action Plan process; served on Greenpeace International and India Boards; co-chaired an IUCN network dealing with protected areas and communities. Active in civil society movements relating to destructive development, conservation, and natural resource rights. Author or editor (singly or jointly with others) of over 30 books.