# From Trickle Down to Leapfrog

## How to Go Beyond the Green Revolution?

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The diversification of rural and agricultural production could bring some hope to the Indian countryside, but only the most integrated social groups and areas will benefit from it, making the others wait for an elusive trickle down. Perhaps a more fruitful process could be the growth of organic farming and the payment by the government for the ecosystem services that farmers do produce – often without being aware of it. Through a historic leapfrogging this could perhaps bring to the fore the disadvantaged areas and groups.

ost of the recent studies on the Indian countryside underline the prevailing high level of poverty, persistent social inequities, slow diversification and limited employment growth. While there exists a general consensus on the symptoms of the disease, experts disagree on the remedy to cure it. Various options can be chosen that can be clustered into two groups of policies (Landy 2009a). One is inspired by free trade and the belief that economic liberalisation shall allow the taking off of some social groups and some regions. In this perspective, concentrating investments and measures on these groups and areas will engender a growth that little by little shall "trickle down" to groups and areas set aside. In the long term, capitalist farming and integration of agriculture into agribusiness are the solution to rural problems of India. Another policy, inspired by planning, is based on the belief that action by the State is necessary so that an excessive polarisation does not prevent equitable economic development and social justice. Its advocates have no faith in the "trickle down" formula; they argue that rural development programmes and public investment in remote areas remain necessary, not only on behalf of equity but also for efficiency. Too large and many social, sectoral and spatial inequities may prevent sustainable growth and long-term development.

The history of independent India gives no reason for hope of success of either of these two policies. Homogenisation policies by the Nehruvian state have not succeeded in bringing the whole nation into the "mainstream", while the present liberalisation policies clearly enlarge social and spatial gaps between the rich and the poor. The trickle-down effect does exist, but not to such an extent that it could eventually encompass the whole of India. Is it then really impossible to maintain both growth and equity, efficiency and justice? How to reach this "leapfrog" effect enabling multiple growth poles to simultaneously emerge without having to wait for an elusive trickle down to happen? Here again there is no consensus on the ways to achieve it, but it is the goal of this paper to briefly beat some tracks leading to new paradigms.

We argue in the first section of this paper that even if the gloomy appraisal on rural situation must be nuanced, it remains that the dominant paradigm since the green revolution must be replaced by new processes. The second section is devoted to an important hope, namely, diversification of rural and agricultural production, but it is feared that only the most integrated social groups and areas shall benefit from it, letting the others wait for an elusive trickle down. Perhaps a more fruitful

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process could be the growth of organic farming and the payment by the government of the environmental services that farmers do produce – without being aware of it. According to some optimistic minds, this, as addressed in the third and last section, could perhaps bring to the fore the disadvantaged areas and groups through a historic leapfrogging.

### 1 (Not So?) Gloomy Appraisal of the Rural Situation

The declining share of agriculture in the Indian gross domestic product (GDP) corresponds to a long-run trend. If only the postreform is considered, according to the Economic Survey, the share of agriculture and allied sectors in the GDP was 26.9% in 1999-2000, but only 14.5% in 2010-11. Considering the tremendous growth in services, however, this could be seen as a positive proof of the "emergence" of India in its march towards development. The fact remains that the share of agriculturists in the working population is not decreasing at the same speed as the share in the gdp, implying that the number of marginal farmers and landless is increasing. Moreover, the star crops of the green revolution, wheat and rice, now show stagnating yields, and in many places it seems that the law of diminishing returns cannot be avoided. Higher land productivity is reached only by a disproportionate quantity of investment and inputs. The prevalent pessimism about this matter may be misplaced, however, the example of Egypt shows that an important margin of progress still exists without new technological breakthrough, only by a better use of resources. Thanks to a better management of irrigation (and of drainage), in spite of rural poverty and lack of capital similar to India, with about 65 quintal of wheat per hectare and 90 quintal of paddy, Egypt has yields greater than Punjab by 55% and 70%, respectively.

Rural poverty remains pervasive in India. "Longitudinal" case studies over a long period do not bring out a homogeneous picture of social changes and mobility. Many of them highlight a diversification of livelihoods across classes thanks to education, non-farm economy, and for poorer groups and areas, more migration that often brings back "new confidence and skills as well as higher income" (Farrington et al 2006: 44). The evolution, however, strongly varies according to places and social groups; and poor people in an advanced area are usually less poor than poor people in an underdeveloped area (Etienne 2006). In northern Tamil Nadu, a region that is far from destitute, agricultural productivity has stagnated, social gaps are maintained in spite of real income growth, rural proletariat got feminised, economic diversification is progressing to the main advantage of big farms, and the proliferation of tubewells has had negative environmental impacts (Harriss-White and Janakarajan 2004). While it is necessary to analyse how to get out of poverty, it remains urgent to understand the factors that explain how households can slide into it. Factors of mobility, downward and upward, are very different and asymmetrical (Krishna et al 2003). "Downward spirals into poverty" (Farrington et al 2006: 462) are triggered by social expenses for wedding or dowry, by the death or sickness of household members (not to speak of alcoholism),

or by the loss of assets after some drought or taking over by some moneylender. Upward mobility is rather engendered by off-farm jobs and migration.

"A silver lining in this otherwise dismal picture" (Rao 2005) is that wages are increasing in the rural areas. The growth rate for male agricultural workers is roughly the same as the one for non-agricultural workers (only the wages of female agricultural workers are growing more slowly than the wages of female non-agricultural workers). These data fit with the official decline of the rural poverty rate. Remember, however, that the annual income of workers is more crucial than the level of daily wages: real wages may increase while the number of employment days is declining. Now this is the case: according to the National Sample Survey Office (NSSO), agricultural wage employment has decreased yearly by 0.9% between 1993-94 and 2004-05 (Jha 2007). The main factor explaining the wage increase is probably the deficit, at least seasonal, of labour.

This deficit has at least two reasons – not to speak of the impact of the recent National Rural Employment Guarantee Scheme. One is the growing disdain of agriculture: educated people are more and more refusing to take on farming. The other reason is migration, or more precisely, mobility: people migrate to cities, to the Gulf countries, to irrigated areas, to coffee plantations, or simply commute daily to a non-agricultural job nearby (Deshingkar and Farrington 2009). The rate of urban growth remains low in India and for each of the last three decades (1981-2011) net rural-urban migration ("rural exodus") never explained more than 21% of the urban population growth (Kundu 2006). This low rate, however, hides migrations to peri-urban fringes as well as a high mobility (daily commuting, seasonal migration, return after some years in city, etc). The winds are slowly changing. The 2011 Census showed that urban India's increase was greater than that of rural India's by nearly half a million people.

Water shortage might well accelerate this mobility. The most suitable places for dams have been since long equipped (and face many problems, notably salinisation of soils, poor drainage, silting of reservoirs). The new projects create controversies that are technical and ecological as well as due to the greater political awareness of the people likely to be displaced. Hence, it is very doubtful that "nearly 40 per cent of the available irrigation potential of 58.5 million hectares from major and medium irrigation projects in the country still remains to be exploited" (Rao 2005: 284). Such an estimate is based on very theoretical calculations limited in time (was any long-term cost-benefit analysis made, including silting and salinisation?), in space (have all the impacts on downstream and upstream areas been evaluated?) and in the gamut of issues (ecological, social and political outcomes) which must be taken into account, not only the watering potential.

As for groundwater, in most of India the tables are declining, and only in the eastern regions untapped groundwater (and surface water) resources remain in quantity. For sure, it is a problem of collective action: groundwater is considered a private good instead of a common resource, and it is wise that the new Groundwater Model Bill, 2011, recognises groundwater as

a public trust (Cullet 2012). But scarcity is not only a social construct, it is also a natural given. In semi-arid climates water is anyway a scarce resource. Watershed development, check dams, water harvesting and the like cannot lead to more optimism. Not to speak of the dubious political economy of many projects, including alleged success stories, the impacts of watershed development cannot be very positively assessed when regional and national levels are considered. If in the upstream part of a river basin all the local watersheds are equipped with check dams and water harvesting public works, no water will be left downstream: irrigated areas in deltas, lagoons and mangroves will be severely affected.

As a conclusion to this section, there is a necessity of changing the paradigm of rural development that was dominant up to now. It was based on maximisation of land productivity; farms had to be as autonomous as possible from agro-processing industries considered as a potential urban and corporate threat; and cereals (or more exactly wheat and rice) were supported by public policies on behalf of national self-sufficiency. India should go beyond the legacy of the green revolution and accept a new paradigm that is elaborated below, based on new agricultural and rural activities; on more integration of farms into marketing chains; and on new visions of agriculture as not only an economic sector of production but also a key social and environmental service provider. The conditions necessary for such a positive change, however, are far from granted.

### 2 Diversification: Still the Good Old Trickle Down?

Rural policies in India are made difficult to design because of at least three factors: (1) vested interests, sometimes masked by social reasons (e g, reservations of oilseed agro-processing to small-scale industries); (2) agriculture is a state subject, hence the central government cannot directly enact laws on agricultural labour, taxes, and land price issues; (3) general poverty in the country prevents any large margin of manoeuvre on wages or prices. On the one hand, it is difficult for the government to have minimum legal wages enforced, because many small farmers cannot afford engaging expensive labourers during harvest, and labour-demanding crops such as paddy should not be jeopardised. On the other hand, agricultural prices cannot be supported beyond a floor level lest they become out of reach for consumers with limited purchasing power. Both employers and consumers are too poor. Since the taxpayers are few (for political rather than economic reasons), the government is in a quandary for funding support to the agricultural sphere.

If little action is possible regarding wages and prices, at least two solutions remain: First, increase productivity, both of soil (yields per hectare) and of investment (e g, by simplifying the marketing chain). The former has become a difficult challenge not only because of agronomic difficulties (pest resistance and the like), but also for cultural reasons: nowadays agriculture in India is increasingly considered a painful, non-profitable, risky and derogatory activity; educated sons refuse to take over the ancestral farm; many well-off farmers lead a process of "extensification", with lower investments, lower yields per hectare but more net income. Education is a way of "leapfrogging", and

many agriculturists prefer to invest in their children's education rather than in their farm. But this leapfrog may be social much more than spatial; emigration of educated people for better jobs cannot develop the area of origin if little remittance is sent back. On the contrary, this brain drain will make the area poorer than before. Second, develop new rural activities inside the agricultural sector (new crops) or outside it (economical diversification).

(1) Let us deal first with diversification inside the agricultural sphere, in favour of, notably, horticulture and animal production. This "diversification" should not be confused with the already present "diversity" of productions that exists in many regions, especially in rain-fed agriculture. In south Karnataka, in order to reduce risks and come as close as possible to self-reliance, farmers grow one crop of finger millet followed by pulses, with some patches of oilseeds. They own some cattle, sheep, goats, hens; in short, diversity is an old key characteristic of Indian rain-fed farming systems. Diversification for high-value crops (vegetables, flowers) or poultry or shrimps is a different matter.

Diversification is partly demand-driven by the domestic market. This is an important point, since fierce criticism is heard against diversification policies, arguing that they are relying on exports at the expense of the Indian consumer (Shiva and Bedi 2002: 513). The current changes in the domestic market allow diversification to be domestic-based to a large extent. The following three long-term factors make it an important process to eventually concern the whole India:

(a) Change in Consumption Pattern: This "food transition" is explained by Bennet's and Engel's laws. Due to higher purchasing power, the rise of middle classes, urbanisation and general development, the share of meat, fruit and vegetables will increase in the Indian diet. Note, however, that some food and taste habits are specific to India for cultural reasons (little vegetable consumed; little "hot" meat because of tridosha classification; religious values favouring vegetarianism). What I called the "Hindu food transition", in a reference to the famous "Hindu rate of growth" (Landy 2009a), argues that unlike northern countries and south-east Asia, pork and vegetable consumption will not grow rapidly unlike other white meat such as poultry. In particular, the decrease in cereal consumption per capita is not fully compensated by the rise in consumption of meat, vegetables, etc. Hence, on the whole calorie availability per capita is declining in India. The average calorie intake per person per day has fallen over time, a unique phenomenon that goes contrary to the general theory of food transition (Landy 2009b) and that cannot but hinder the growth speed of non-cereal demand.

**(b) Urbanisation:** Urbanisation, for various reasons (working women, cost opportunity of cooking time, smaller households, cultural change, etc), accelerates this food transition. The urbanisation rate of India is still officially low, but food transition is also accelerated by the "cultural urbanisation" and pseudowesternisation that are occurring in many rural areas, especially among well-off families.

(c) Changing Relative Prices between Cereals and High-value Agriculture: During the 1980s, dairy, fruits and vegetables, as well as poultry or fish were made cheaper thanks to technological and marketing boosts. Once again, however, some nuances have to be brought out. Just consider that maize is too expensive for many Indian animal-rearers to buy – but cheap enough for one-sixth of the Indian production to be currently exported, creating a vicious circle since these exports make domestic prices higher. That imports are controlled by the Food Corporation of India shows that maize is officially still considered as human food rather than animal feed, indirectly preventing meat prices from falling enough to be within the reach of poor consumers.

Beside these demand-driven factors, there exist supply-side factors, such as "improvements in infrastructure (specifically roads and markets) and technology (relative profitability and risk in different commodities)" (Joshi et al 2007: 60). Liberalisation is a priori a positive factor for agricultural diversification. Less protectionism brings cheaper inputs (notably feed, for poultry) and easier exports (aquaculture) and encourages greater market orientation of farm production. It frees private capital that is allowed to be invested in new sectors (oilseed processing), and it makes new technology available. It remains to be seen, however, whether demand factors always fit with supply factors, and whether the change in consumption always corresponds to a change in production. Is there not a gap, at least in time? Cheaper imports of subsidised poultry (say, from Europe) could compete with Indian producers for feeding new consumers.1 Moreover, it cannot be denied that the external markets will represent a good part of the outlet, which will also create risk and uncertainty. Global phyto-sanitary standards prevent the easy access of Indian products to markets abroad since these are sometimes of poor quality.

(2) Diversification also includes sectoral change outside agriculture. India remains far from the successful rural diversification of many south-east Asian countries, even though the trend is positive. More worrying, the absolute number of workers employed in agriculture does not decline: according to the NSSO, the labour force in agriculture, which was 242.5 million people in 1993-94, had gone down to 237.6 million in 1999-2000 but rose again to 259.1 million in 2004. Whatever the validity of these data, the demographic pressure on land is still important, preventing any consolidation of farms and decline in the number of agricultural labourers. It is hardly surprising, consequently, that the map of off-farm male rural workers looks like the map of poverty.

Between 1993-94 and 2004-05, however, rural non-agricultural employment increased by 3.5% yearly, whereas total agricultural employment increased by 0.4% only. If we consider that meanwhile some "traditional" artisans (weavers, potters, etc) have disappeared, whilst "modern" rural industry and services as well as commuters having an urban job were growing, this data shows that diversification is slowly taking shape. What remains to be seen is where, for what and for whom. In particular, it is feared that a part of these non-agricultural jobs is "distress diversification" born out of rural unemployment, with low income and low productivity, rather than "wilful diversification".

(3) Does this double (agricultural and non-agricultural) diversification represent a big hope for small farmers? Non-cereal agriculture brings more income per hectare and needs more labour (or as much, in the case of rice). "Smallholders can leapfrog from their foodgrain-based systems to high-value agriculture to augment their incomes. They have certain advantages, primarily abundant family labour, as most of the high-value commodities are labour-intensive", it is often argued (Joshi et al 2007: 31). But they also have many disadvantages, as most of the high-value commodities are capital-intensive and marketdependent, fragile and risky (Shiva and Bedi 2002). If you add another key constraint, credit, not to speak of the low level of education of many petty farmers, it is highly debatable that "the evidence is that the primary production centres of highvalue commodities are largely concentrated with smallholders" (Joshi et al 2007: 222). That diversification will take off is certain, but that this process will bring benefit mostly to the small farmers is much less sure. Not to speak of economic constraints, indebtedness, patronage, asymmetries of information and interlocked markets of products, credit and labour "remind us that the study of livelihood diversification is more than simply about multiple income sources; it relates to the current economic and political transformations whether originating from global, national or local levels" (Farrington et al 2006: 48). If we consider only the local level, we find "social structures of accumulation" (Harriss-White 2003) that segment the rural (and urban) society to the benefit of "intermediate classes" and at the expense of dominated groups. Hence, diversification may not only benefit mainly the already well-off groups and areas, but, on the reverse, polarisation and excessive social and spatial hierarchies may prevent diversification to occur. Inequality can often inhibit "the potential of 'growth linkages' from agriculture for bringing about rural economic diversification" (Harriss-White 2006: 134).

In order to bypass the constraints faced by small farmers, at least two (non-exclusive) solutions exist:

(a) Contract Farming: In the case of contract farming, "the firm controls the production process without owning or operating the farms but ensures assured procurement of output and remunerative prices" (Joshi et al 2007: 236). It allows for compressing the supply chain by reducing the number of intermediaries, so that allegedly the farmer receives a higher share of the final consumer price (presently one-fifth, in the case of fruits and vegetables). It can make input supply easier for the farmer and guarantee an outlet at a fixed price, thus overcoming the shortage of capital and information that many smallholders suffer from. Contract farming is expanding in India due to liberalisation, but in the Punjab it is accelerated by indirect contracts with agro-processing firms through the state, namely, the Punjab Agro Foodgrains Corporation - with limited success (Kumar 2006). Often the smallholders are excluded from the retail chain (Singh 2012).

**(b) Producer Groups and Cooperatives:** They can allow economies of scale and prevent smallholders to be alone while

bargaining an agreement with a wholesaler or a corporate company.<sup>2</sup> Already, dairy and vegetable firms are today contracting through farmers' associations rather than with individuals. But how to make real cooperatives (not the present type of "government cooperatives" that exist in most villages) flourish in such a hierarchical and segmented rural society? Some success stories exist in India – and not only milk cooperatives in Gujarat. Generally speaking, villages with a large proportion of small farmers belonging to the same caste without excessive agrarian hierarchy or political bias could be pioneers in cooperative building.

All in all, production per se should not be the only link of the chain focused on. Both ends of the chain should be tackled.

**Upstream:** Strict terms of reference by the government should be made compulsory in contract farming, in order to "frame" agreements and prevent abandoning small farmers alone in front of agribusiness firms. (Reforms in India should not mean less state, but a better state.)

**Downstream:** Processing the agricultural output allows better price, thanks to added value and less market fluctuation. In India, the ratio of produced fruit and vegetable that are processed is very low (even if the commonly published percentage of 2% is probably an underestimate because production is overestimated). Increasing this ratio could also create rural off-farm employment if factories are set up near the production areas. It is also necessary to improve transport and marketing infrastructures (roads, cold chains, etc).

(4) The risk of bias is not only social, but also spatial. A study of the International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT) mapped the share of high-value commodities in the total value of agricultural output (Rao and Kar 2005). Central India is little diversified, and with the notable exception of Bihar-Jharkhand, the BIMARU states — Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh — belong mostly to the low diversification group. In short, diversification is spatially elitist. Could this hurdle be overcome by targeted public investments and programmes? Fan et al (1999) have argued that marginal returns to public investment in weakly integrated areas are high. Others like Ravallion (2005) and Farrington et al (2006: 451) claim that

the combination of exclusion from some markets, interlocking of others, and generally high levels of risk and vulnerability severely constrain how and how far [the poor farmers] can engage in markets, and therefore, limit their opportunities to take up new options and activities in new locations or emerging sectors.

What is true for poor social classes is true for poor areas, and it is feared that spatial exclusion of some regions can prevent them to benefit from such opportunities.

Hence, the better-endowed groups will be the first to benefit. From big to small farmers, from peri-urban areas endowed with market and good infrastructures to the countryside far from cities and transportation axes, the usual social and spatial trickle down must be expected, as weak and slow as it can be, rather than some illusory drastic change that would

miraculously balance the existing inequities between regions and between classes. Some surveys, true, bring out success stories in contractual arrangements between small dairy farmers and multinational companies such as Nestlé in Punjab: "the vertical coordination in high-value food segment helps in lowering the transaction costs and market risks of smallholders" (Joshi et al 2007: 407), but some others are much less optimistic. How to avoid that contract farming means "enslaving agriculture to corporations" (Shiva and Bedi 2002: 65) if contract statements are too harsh for the farmer? Many cases in developed countries (milk or chicken producers in France, for instance) do not hold out optimism for the fate of small farmers in developing countries. An important bias in studies underlining the better situation of smallholders in contract farming compared with smallholders without contract is that they hardly take into account the fact that processing companies select ex ante the farmers to deal with: consequently it is not astonishing that, ex post, contract farmers are better off than others.

## 3 Environmental Services and Organic Farming

Environmental services and organic farming are issues that might bring more optimism regarding a possible leapfrogging.

Organic Farming: Can the Last Be First? Like diversification, the trend in favour of organic farming is both demand- and supply-driven. On the demand side, food safety has become a goal as important as food security in a country where greater health awareness and higher purchasing power for the middle and upper classes make the consumers check more carefully the quality of foodstuffs before buying them. On the supply side, loss of soil fertility due to improper irrigation or chemical over-fertilisation, health hazard of pesticides and the cost of industrial inputs, are some factors that push for an environmentally sustainable agriculture.

In this approach, the "progressive farmers" of the green revolution will become outmoded if they do not renounce, at least partly, the most unsustainable traits of artificialised agriculture. On the opposite, the presently so-called "backward farmers" who in rain-fed poor areas (69 million hectares) hardly use chemical fertilisers, no pesticides, and have stuck to traditional crops and local desi varieties have a new card to play. As the website of the Uttarakhand Organic Commodity Board put it, they are "organic by default". Is it a renewed version of the tale, "The Tortoise and the Hare"? Can the slowest eventually win the race? If the small poor farmers and the rain-fed poor regions turned to organic farming, the last social and spatial groups could become the first.

At least this is what could be dreamed of. Many hurdles exist, however. On the supply side, fertilisers are already commonly used in most rain-fed areas, local varieties have become rather rare even in these parts of India, and it remains to be proved that the present "tradition" is always "organic". Moreover, rain-fed areas are often out of the main marketing networks and selling organic products, for the time being, often needs the support of non-governmental organisations (NGOs) for reaching the few consumers interested in it. Lastly, on the demand

side, consumers remain fussy regarding the taste and the look of organic foods. If they are ready to pay for more expensive products, they are not ready to accept smeared fruits or vegetables with a bizarre shape. Moreover, organic marketing chains must adhere to strict standards, national or international. Certification of production systems can raise the incomes of farmers and give an impulse to the diversification processes. But it is a difficult constraint, very demanding in time and expertise. It is remarkable, therefore, that certified areas have seen a dramatic growth in recent years.4 Organic farming needs integration in agro-processing marketing chains, the constraints and drawbacks of which have been addressed above. Even though some processing should be done at the farm level for bringing added value to the producer, the integration into a marketing chain will bring him or her into some forms of dependence.5

A solution could be the building of chains of "fair trade", where the end product is sold at a somewhat higher price than a normal product, but the consumer is aware that this selling price includes not only an economic added value but also a social and environmental added value. In India some tea and coffee are already "fair traded", but in this country, like anywhere, some frauds and misuse exist. Today, globally, fair trade is developing itself between southern producers and northern markets, but south-south fair trade is also slowly taking root (Alter Eco in Brazil) and such marketing chains are also slowly growing in India, in particular in hilly areas. In short, the building of organic farming chains, from small farmers to rich consumers, from rain-fed poor areas to metropolitan cities, cannot but be a very long-term process. Probably big farmers and corporate farms, as well as irrigated areas will enter such chains before "the last". There will be no large-scale leapfrogging through organic farming.

Environmental Services - The 'Multifunctionality' of Agriculture: In 2007 in Coorg (Kodagu district, Karnataka) I visited coffee estates that have undertaken homestay activities. In most cases, the planter's wife is putting up the tourists: accommodation, food, camping fire amid coffee plants under evergreen forest cover. Such a new activity is based on a double need from the estate perspective: the financial need to have an economic "cushion" in case of lower coffee prices; the social need for the planter's wife to break a monotonous life. "This is my job", said a lady (Bcom educated). This activity is also demand-driven, linked to the growth of the middle classes who see so-called "nature" as a resting environment rather than a space of production. For them it does not matter whether the forest has been partly cleared for letting space to coffee plants fed with chemical fertilisers and pesticides. Seeing "greenery" is sufficient to feel relaxed, far away from the congested life of Bangalore or Mumbai.

In these homestays, about one-third of the tourists ask questions regarding coffee cultivation, flora and fauna. This is not negligible. But many of them take the landscape as granted and are not interested in the way it has been constructed by farmers. A large proportion of the middle class has lost any

contact with the agricultural sphere, and exactly like in the northern countries, considers an agricultural landscape as "natural" because it is vegetal. Or, if they are aware that it is an artefact, they consider it as a "heritage", i e, ancient, unchanging and destined for eternity.

This view may appear naïve, but there is some wisdom in it, that goes much beyond the specific case of Coorgi homestays and is valid for the whole of India. That agriculture is part of "nature" may sound foolish if deforestation, a depleting water table, use of chemicals, etc, are considered. It may not sound so if positive environmental impacts are highlighted. Capitalisation through the delivery of global public goods preventing a greenhouse effect is promoted by the Kyoto Protocol. Recent coffee planting on degraded forests in Western Ghats has increased carbon sequestration, both in the soil and above ground (Bourgeon and Nair 2008). Paddy fields in lowlands prevent flooding and allow water table recharge. Well-managed agriculture prevents erosion. It also maintains, as the Coorgi lady said, "nice-looking greenery", which is attractive for tourists.

In France, five-year-long "sustainable agriculture agreements" (contrats d'agriculture durable) can be signed between farmers and the State for the grant of financial public support in exchange for the farmer's commitment regarding "agro-environmental actions" (management of animal excreta, non-pollution of water table, biodiversity conservation, etc, as well as organic farming chain or activities favouring employment growth). India too must go beyond the productivist vision of agriculture and recognise ecosystem services. Without forgetting its production goal that remains essential as highlighted since the national and global food crisis in 2006-08, other functions must be taken into account:

- Economical Goals at the Level of the Production Unit: Unless this goal is not considered, if a farmer cannot make enough money, he will sell his farm, at least in peri-urban areas where land is coveted for other uses or none of his sons will be willing to take over it. "The future emphasis of agricultural policy ought to be on maximising farm household incomes rather than generating food surpluses" (Joshi et al 2007:147).
- Social Function of Agriculture: Often considered as a "parking sector", a "residual" activity, agriculture must remain vibrant even in the poor countryside, unless rural exodus increases in scale and makes urban management and slum problems even more difficult. This social utility deserves some support.
- Ecological Function of Agriculture: Its role in biodiversity conservation, erosion prevention, etc, cannot be underemphasised, at least in the case of sustainable agriculture.
- Cultural Function: What would south Indian culture be like if paddy fields were to disappear to the advantage of rubber, banana or casuarina? What would be the food of rural south Karnataka people without *mudde*, finger millet bowls? Not only coconut trees are necessary to attract tourists in Kerala (economic function), they are a key ingredient of traditional food, of local medicine of Malayali identity. The

#### **SPECIAL ARTICLE**

agricultural landscape is much more than a space of production: it is a patrimony, often built generation after generation, carrying social, political and cultural identities. It is like a palimpsest where the legacy of former values, passed utilities, history of societies and cultures as well as present functions can be read.

Lastly, one more reason makes it urgent to acknowledge what is called in the European Union's jargon of the "multifunctionality" of agriculture: since this multifunctionality is acknowledged in Europe, and to a large extent, at the World Trade Organisation, the Indian farmers cannot be on the same level playing field, if they do not benefit from the same support as their French or United States counterparts. Multifunctionality is the reason – not (only) a pretext – for keeping some subsidies in the "green box" of the permitted "programmes that are not targeted at particular products and include direct income supports for farmers that are not related to (are "decoupled" from) current production levels or prices. They also include environmental protection and regional development programmes". They are allowed without limits, provided they cause "minimal distortion" to trade.

Even China is now granting some small direct subsidy to farmers, acre-wise, that is decoupled from actual production. Using these supports is efficient and politically painless, unlike prohibitions that are not easy to implement. Though in Kerala conversion of paddy fields is banned, many farmers are replacing paddy by banana or rubber. Conversion would

slow down if support to paddy growers, decoupled from production but based on environmental services, was granted by the government. Cynically speaking, one could say that the main outcome of prohibition is to increase bribes and corruption. Hence it is suggested to use the carrot rather than the stick, and to provide strong incentives to grow environmentally sound crops.<sup>7</sup>

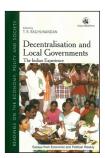
#### **Conclusions**

The role of the demand side appears essential for driving positive changes in Indian agriculture (diversification, organic farming, green tourism, etc). It is hoped that the "emergence" of India and the growth of the middle classes, that up to now concern mainly the urban sphere, shall also indirectly touch the countryside through demand by these consumers. Another important actor remains in place, however. The role of the government is not to be reduced in spite of liberalisation. As seen above, the growth of private agribusiness role in agriculture could be a parallel process, instead of an alternative to the improvement of state action in matters of public investment and of rules for contract farming. As in other matters, liberalisation is not characterised by the substitution of one actor by another, but by the addition of new actors without the former, here namely the state, necessarily disappearing. "Liberalisation" is nothing but a multiplication of actors (Ruet et al 2009). Similarly, the "participation" hype in natural resource management (irrigation, forest, etc) cannot make us forget

## **Decentralisation and Local Governments**

Edited by

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The idea of devolving power to local governments was part of the larger political debate during the Indian national movement. With strong advocates for it, like Gandhi, it resulted in constitutional changes and policy decisions in the decades following Independence, to make governance more accountable to and accessible for the common man.

The introduction discusses the milestones in the evolution of local governments post-Independence, while providing an overview of the panchayat system, its evolution and its powers under the British, and the stand of various leaders of the Indian national movement on decentralisation.

This volume discusses the constitutional amendments that gave autonomy to institutions of local governance, both rural and urban, along with the various facets of establishing and strengthening these local self-governments.

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that participative institutions cannot be democratic, effective and sustainable without a proper framing by the state.

Now, the government is not an isolated actor, and many of its decisions are responses to citizens' demands. Farmers' power in India has been analysed as an exception by Varshney (1994: 3), since, in most of the developed countries,

the historical paradox of rural power can be stated as follows: although in the process of economic development the populous country-side loses power, the combination of a democratic polity and an industrialised economy later seems to empower it. India defies this historically derived paradox.

In India, rural power rose in the 1980s in spite of under-industrialisation – just because, unlike developed countries where universal franchise had been introduced during the industrial revolution, "independent India was born agrarian as well as democratic". In the future, the Indian situation will be probably less paradoxical: being smaller than other economic sectors, agriculture will be supported by the government through less of a fiscal strain. Richer consumers shall accept higher farm prices, at least for some specific foodstuffs. India will come closer to the situation of rich countries, all the more so if the following statement is accepted by all the decision-makers: except for a few rare types of farms such as in Argentina or Australia, agriculture in the world needs public-support to be sustainable. Even the European or American farmers get subsidies (or payment for social and ecological services), so it should be intellectually and politically accepted that the Indian farmers should also get subsidies. Each country has the right to reach food security with a sustainable agriculture that provides environmental and cultural services beside productive and social functions. Accepting this right and trying to achieve it shall force to reconsider the relationships between agriculture and state under a new light. No doubt the view of agriculture by the civil society and ordinary citizens could also change.

#### NOTES

- 1 Another issue that must not be forgotten, in spite of some complacency since the last few years, is food security at the national level. As reminded by the global food crisis of 2006-08, feeding more than one billion of mouths cannot be achieved by relying only on cereal imports, because India is too big a market for not pushing the world prices upwards as soon as it announces some order or bid. Thus, agricultural diversification should not be of too large scope at the cost of cereal imports.
- 2 Note that while three French farmers out of four belong to a marketing cooperative, the average farm size is 40 times larger than in India!
- 3 www.organicuttarakhand.org.
- 4 The Geographical Indications Act was passed in 1999, and can be used for giving a legal advantage to organic products. Thanks to the National Programme for Organic Production (interestingly a programme under the Agricultural and Processed Food Products Export Development Authority APEDA), a direct economic support is provided to farmers only Rs 10,000 per ha during the conversion period. In 2000-01 there were approximately 41,000 ha of land certified as organic in India (excluding forest under certification), 1,14,000 ha in 2005, and 4.4 million in 2010-11. In 2005-06 2,90,000 tonnes were produced, but 3.4 million tonnes in 2010-11 (www.apeda.gov.in).
- 5 That organic farming could be an important factor of the "internal liberalisation" advocated by Vandana Shiva is thus debatable, since "freeing agriculture from high external inputs such as chemical fertilisers" (Shiva and Bedi 2002: 14) shall not free it from strong links with trade and market. I doubt that "organic cotton is equivalent to Gandhi's *charkhas*" for reaching freedom (p 183). Lastly, it goes without saying that landless farmers, i e, the poorest of the rural dwellers, cannot benefit from organic farming since they have no land.
- 6 www.wto.org
- 7 European "eco-conditionalities" are so strict, however, that, for meeting the standards in force (low level of pollution, sewage management, tree plantings, design of farm buildings aesthetically adapted to the local landscape), the French farmers must get into debts to be up

to specification. Support by the government is not a one-way help, it has reciprocal duties that may create new problems.

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