AGRARIAN STUDIES 5

HOW DO SMALL FARMERS FARE?

Evidence from Village Studies in India

Edited by

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Small Farmers and Small Farming: A Definition

Venkatesh Athreya, Deepak Kumar, R. Ramakumar, Biplab Sarkar

This volume seeks to address some key questions concerning small farms and small farmers in the context of contemporary India. It draws on empirical material of exceptional quality collected through carefully designed and conducted household and farm economy surveys, mostly of the census type, in nearly 20 villages located in nine major States of India. In this chapter, we look at the importance of small farms and small farmers in India today; selectively review some of the literature; briefly discuss policy-related definitions of small farmers; outline the current agrarian context, highlighting the issue of agrarian distress; and indicate how the rich empirical material from the surveys conducted by the Foundation of Agrarian Studies (FAS) under the Project on Agrarian Relations in India (PARI) speak to some key issues concerning small farms and small farmers.

Why Study Small Farms and Small Farmers?

Oksana Nagayets (2005) notes:

There are approximately 525 million farms worldwide, though small farm data are only available for 470 million. Of these, smallholders who operate plots of land of less than 2 hectares currently constitute 85 per cent. The overwhelming majority of these farms are located in Asia (87 per cent), while Africa is home to another 8 per cent, and Europe to approximately 4 per cent. . . . In Asia, China alone accounts for almost half the world's small farms (193 million), followed by India with 23 per cent. Other leaders in the region, in descending order, include Indonesia, Bangladesh, and Vietnam.

Small farms operated by households – which, as noted above, account for a high proportion of all family farms across the world – dominate the agrarian economy in the developing countries of Asia in terms of their share of all farms. They also account for a significant proportion of the area operated,

Country	Share of number of farms	Share of extent of farm land
India, 2011	84.98	44.32
Pakistan, 2000	57.63	15.64
Nepal, 2002	92.44	68.72
Sri Lanka, 2002	45.25	5.36
Myanmar, 2003	56.92	19.03
China, 1997	97.91	_
Philippines, 2002	69.06	25.47
Indonesia, 2003	88.73	_
Vietnam, 2001	94.81	_
Thailand, 2003	64.50	_
Laos, PDR, 1998–99	73.50	42.82

Table 1 Small farms as a proportion of all farms, and extent of land under small farms as a proportion of extent of all farms in per cent

Note: Small farms are farms whose extent is 2 hectares or less.

Source: Adapted from T. Haque (2016, p. 19, Table 1.1).

though the share of small farms in total area operated is substantially smaller in many countries than their share of the number of farms. Presented above are some data on the share of small farms, defined as being less than or equal to 2 hectares in extent, in area operated in some countries of Asia (Table 1). Farms of size less than 2 hectares accounted for 97.91 per cent of all holdings in China in 1997, 94.81 per cent in Vietnam in 2001, 92.44 per cent in Nepal, 88.73 per cent in Indonesia in 2003, and 84.98 per cent in India in 2011.

According to the Agricultural Census of 2010–11, there were a total of 138.35 million operational holdings in India. The total area operated was 159.59 million hectares and the average size of an operational holding was 1.15 hectares. The average size of all holdings of size 2 hectares or less – which constituted small and marginal holdings as per the official definition – was 0.60 hectare.¹ Holdings of size 2 hectares or less accounted for around 85 per cent of all holdings and 45 per cent of the total area operated. The number of persons who were part of small farmer households was close to half a billion.

It is obvious that small farms will continue to account for a large share of all farms across the world, and especially the developing countries, in the foreseeable future. The sheer numerical importance – in both absolute and relative terms – of both small farms and the small farmers who operate them makes it worthwhile and appropriate for social scientists to study small farms and small-scale farming.

¹ Available at https://factly.in/agricultural-land-holdings-statistics-india-account-for-close-to-a-third-of-the-total-agricultural-land, viewed on 8 January 2017.

SMALL FARMERS AND SMALL FARMING

The Perspective of the Present Study²

While what the future holds for the small farmer may be a subject of much academic speculation, it cannot be denied that for a long time to come, small farmers will be present in the Indian as well as the global economy in large numbers. The present study seeks to offer some suggestions regarding policies of support to small farmers in the interregnum, even as we examine the hypotheses in the literature concerning small farmers against the evidence from FAS surveys conducted in several States of India since 2005.

In the voluminous literature on small farms and small farmers, there is a distinct tendency to romanticise small-scale farming. Various virtues are ascribed to the small farm: it is claimed to be more efficient than the large farm; it is said to be ecologically more worthy of preservation than the large farm; it is said to represent a higher moral economy. A recent study argues:

Considerable research in the past several decades has indicated that the smallscale and family farming sector plays a key role for environmental sustainability and farmer livelihoods (e.g., Chappell *et al.* 2013), and, given the non-market values generated by agriculture (Sandhu *et al.* 2015), the true contribution to the global economy is likely much larger than the US\$2.2 trillion figure. There is also consistent evidence that small-scale farms can be more productive per unit area (Barrett, Bellemare, and Hou 2010); may show enhanced stability and resilience (HLPE 2013; Holt-Gimenez 2002); generate more jobs and money within local economies (HLPE 2013; Lyson, Torres, and Welsh 2001); and harbour more agro-biodiversity and contribute to dietary diversity (HLPE 2013; Jarvis *et al.* 2008) – the latter being a key indicator of overall food security. (Graeub *et al.* 2016)

Small-scale farming has come to be accepted by some as a one-size-fits-all solution to problems in the countryside across much of the underdeveloped world. The support for and advocacy of small-scale farming come from (seemingly) antagonistic sources. While it is promoted by the World Bank, the United Nations and many of its constitutive organisations, and various other international and domestic NGOs, it also finds sympathisers amongst individuals and organisations, such as the popular Via Campesina, that oppose globalisation and the influence of transnational organisations.

The intellectual lineage of advocacy of small-scale farming goes back to the neo-populist theoretician Chayanov, who argued that a peasant household

² This section draws on an unpublished note prepared by the FAS team, led by Deepak Kumar, in 2015, entitled "Small-Scale Farming in Indian Agriculture."

carries out agricultural production for the purpose of consumption and employs only family labour. The objective of such production, he argued, was "labour–consumption" equilibrium – a balance between the utility of higher production and the disutility of greater drudgery by way of more intensive labour. Such household-based production was embedded in a larger theory of a "peasant economy," distinct from a capitalist economy. Even in conditions where capitalist farms go bankrupt, Chayanov argued, peasant families could continue production by working longer hours, selling at lower prices, and surviving without obtaining any net surplus. However, the concept of intensification of self-exploitation, which played a central role in Chayanov's work, hardly finds mention in the current advocacy for smallscale farming.

Chayanov's conception of a largely homogenous peasantry was in direct contradiction to the Marxian understanding of the social order in the countryside, which recognised the process of differentiation of the peasantry as an integral part of capitalist development. His ideas have been subjected to systematic criticism, most notably by Utsa Patnaik (1979). Chayanov's ideas have since been appropriated and altered substantially to feed two dominant trends of agrarian populism as identified by Henry Bernstein (2009): the technicist or neo-populist trend, and political populism. These roughly correspond to the positions of the international organisations and Via Campesina, respectively. Citing Gavin Kitching (1982), Henry Bernstein notes that:

populist ideas are a response to the massive social upheavals that mark the development of capitalism in the modern world. Advocacy of intrinsic values and interest of the small producer . . . as emblematic of "the people" arises time and again as an ideology, and movement, of opposition to the changes wrought by the accumulation of capital. (Bernstein 2009, p. 68)

Terence Byres argues that neo-populism stands

for a particular set of solutions, in the countryside, to the depredation visited upon labour, as capitalist transformation proceeds in circumstances of limited absorption of labour in manufacturing industry, and of a large and growing services sector and a continuing large informal sector . . . the problems of capitalist industrialisation are . . . conjured away by suggesting that an alternative lies in the countryside. (Byres 2004, p. 19)

Several strands of argument are invoked in support of this form of social organisation of production by political populists and technicist populists. We discuss them briefly below.

SMALL FARMERS AND SMALL FARMING

1. *Efficiency*. At the core of the argument in favour of small-scale farming in terms of its efficiency is the alleged inverse relationship between land productivity and size. It states that small farms are more efficient, defined in terms of yield per acre, than large farms. It is argued that this relationship holds true more or less universally. This assertion was also the basis of the debate in India on farm size and productivity based on findings from the Farm Management Studies. This argument, which continued through the 1960s, has seen a recent revival. Apart from the empirical challenge posed to this formulation (especially by the green revolution), it has also been theoretically rebutted by Terence Byres. He states that this argument posits

the staying power, viability, and superiority of peasant agriculture *vis-à-vis* capitalist agriculture only by failing to acknowledge the existence and nature of capitalism. Methodologically, its crippling shortcoming is that it is a static approach in a dynamic context that does not and cannot capture relevant change and its contradiction. It is [an] . . . eminently well-intentioned but reactionary intervention inasmuch as it seeks to recreate a past that has never existed and institute an agrarian structure that contains the seeds of its own destruction. (Byres 2004, p. 41)

The body of empirical evidence from FAS surveys too does not support the hypothesis of an inverse relationship between farm size and output per unit of land.

2. Social justice and equity. The argument for social justice, while often well-intentioned, overlooks the conception of self-exploitation explicitly made by Chayanov. As we will see from the empirical material of the FAS surveys carried out for a decade now, most peasant farms and peasant households survive because they are based on intensive labour and considerable deprivation in respect of consumption, education, and health care. Peasant farms are overwhelmingly dependent on family labour, which is mostly a euphemism for intensive employment of the unpaid labour power of the women and children in a peasant household. This labour-intensive cultivation does not provide enough income (in cash or kind) to meet the consumption needs of the family. Incomes from crop cultivation can even be negative in many cases, as the FAS surveys show. The members of such households therefore often labour out on others' fields, and rely on other highly precarious forms of employment in the non-agricultural sector.

3. *Food security*. Supporters of small-scale farming claim that food production on small holdings ensures at least a basic minimum provisioning of food. Small-scale farming, then, is supported on the grounds that it provides food security in its four dimensions of availability, access, utilisation, and stability.

The evidence from FAS surveys, however, does not suggest that small farmer households are generally food-secure.

4. Social solidarity and ecological sustainability. Many advocates of smallscale farming claim that ecological sustainability and social solidarity are integral to the "peasant way" followed by the "people of the land." They argue that peasants (undifferentiated, in their understanding) follow ecologically sustainable cultivation practices and preserve bio-diversity. In their reading, small-scale farms offer a viable alternative to the devastating effects of capitalism on ecology. In addition, solidarity networks of mutual assistance are claimed to be integral to this way of life. These peasants are projected as an organised force against the onslaught of global neoliberal capitalism that seeks to endanger food sovereignty globally. This moral dimension of agrarian populism is a defence of a threatened and idealised way of life that involves anti-industrialism and anti-urbanism.

On the other hand, the FAS surveys suggest that, as against the assumption of social solidarity among an undifferentiated peasantry, an active process of differentiation of the peasantry is, and has been, the reality on the ground. Further, there is no evidence to show that small farmers follow cultivation practices that are significantly more ecologically sustainable than others. There is also little evidence of mutual assistance being a mainstay of peasant production.

While there may not be much ground for arguing that small-scale farming embodies the virtues claimed for it by its romantic advocates, it is important to recognise that any democratic agrarian policy/perspective should reckon with the fact that small farmers account for a substantial proportion of the rural/agrarian population, and require concrete policy support to stay viable in the context of the hostile assault on their livelihoods by neoliberal capitalist globalisation. The present study takes the view that just as it is necessary not to romanticise small-scale farming, it is equally important not to abandon the small farmer.

MARXIST CLASSICS ON THE SMALL FARMER UNDER CAPITALISM³

In this section, we briefly review the Marxist viewpoint on the development of capitalism in agriculture and its implications for small farmers, from which our perspective draws its inspiration.

In the Marxist understanding, a peasant under a capitalist mode of production faces a significantly different economic environment as compared to a peasant

³ This section draws on Ramakumar (2016).

under a pre-capitalist mode of production. Capitalism revolutionises the forces of production and expands the "economic size" of the farm. As a result, the "isolated labour" of the peasant gets transformed into "social labour." In this context, the point made by Marx in *Capital*, Volume 3, is of relevance:

Proprietorship of land parcels, by its very nature, excludes the development of social productive forces of labour, social forms of labour, social concentration of capital, large-scale cattle raising, and the progressive application of science. Usury and a taxation system must impoverish it everywhere. The expenditure of capital in the price of the land withdraws this capital from cultivation. An infinite fragmentation of means of production and isolation of the producers themselves.⁴

Reviewing Marx's views on cooperatives, Lenin made the following remarks in parentheses in his work, *Karl Marx*:

(Co-operative societies, i.e., associations of small peasants, while playing an extremely progressive bourgeois role, only weaken this tendency, without eliminating it; nor must it be forgotten that these co-operative societies do much for the well-to-do peasants, and very little – next to nothing – for the mass of poor peasants; then the associations themselves become exploiters of hired labour.)⁵

It is important, however, to note that Marx's views on this issue continued to evolve and acquired much nuance later. Thus, Marx and Engels wrote in their discussion of the Polish question:

The big agrarian countries between the Baltic and the Black seas can free themselves from patriarchal feudal barbarism only by an agrarian revolution, which turns the peasants who are serfs or liable to compulsory labour into free landowners, a revolution which would be similar to the French Revolution of 1789 in the countryside. (Engels 1848)

One can see here the germ of the idea of a "worker-peasant alliance" that emerged later in Marxist literature with regard to resolution of the agrarian question.

A dominant school of thought within Russia – the Narodniks – held the view that the *mir*, or the old Russian commune system, was essentially socialist in character and could be the platform on which Russian socialism could be built by means of a non-capitalist path, or by bypassing capitalism

⁴ From Karl Marx, *Capital*, Volume 3, Chapter 47, available at https://www.marxists.org/archive/ marx/works/1894-c3/ch47.htm

⁵ Available at http://www.spartacist.org/english/wv/1076/marx.html

as an intervening mode of production. When the Narodniks put forward this formulation to Marx and Engels, they responded, cautiously at first but then rather firmly, in the negative. Marx and Engels were ready to appreciate that the *mir* could be a vehicle for social transformation of Russia without reliance on a capitalist path. However, there were two necessary conditions for this:

The first condition necessary for this was an impulse from outside – a change in the economic system of Western Europe, destruction of the capitalist system in those countries where it had first arisen. (Engels 1893)

The second was a "popular revolution;" that is, as Trapeznikov (1981, p. 75) put it, "If popular revolution was victorious in Russia, the landlordmonarchical system abolished and private ownership of the instruments and means of production abolished" However, both conditions were not fulfilled for a prolonged period. In the intervening period, capitalist relations in Russia advanced rapidly. In such a circumstance of advancing forces of production, Engels wrote:

As to the commune, it is only possible so long as the differences of wealth among its members are but trifling. As soon as these differences become great, as soon as some of its members become the debt-slaves of the richer members, it can no longer live. I am afraid that institution is doomed. But on the other hand, capitalism opens out new views and new hopes. Look at what it has done and is doing in the West. . . . There is no great historical evil without a compensating historical progress. (Engels 1893)

LENIN ON THE PEASANT QUESTION

Picking up the thread from Marx and Engels, Lenin fought a historic ideological battle against the Narodniks. To begin with, he recognised that the idea of equality embedded within Narodnik thought was indeed "progressive," and that its content was "historically real and historically legitimate." However,

The mistake all the Narodniks make is that by confining themselves to the narrow outlook of the small husbandman, they fail to perceive the bourgeois nature of the social relations into which the peasant enters on coming out of the fetters of serfdom. They convert the "labour principle" of petty-bourgeois agriculture and "equalisation," which are their slogans for breaking up the feudal latifundia, into something absolute, self-sufficing, into something implying a special, non-bourgeois order. (Lenin 1907)

In other words, the Narodniks missed the fact that the economic principles under which peasant farming operates shift fundamentally under capitalism. With the advance of capitalism, the peasantry faced a qualitatively different material situation. Lenin also quoted Marx to underline his point.

One of the major results of the capitalist mode of production is that, on the one hand, it transforms agriculture from a mere empirical and mechanical self-perpetuating process employed by the least developed part of society into the conscious scientific application of agronomy, in so far as this is at all feasible under conditions of private property; that it divorces landed property from the relations of dominion and servitude, on the one hand, and, on the other, totally separates land as an instrument of production from landed property and landowner. The rationalising of agriculture, on the one hand, which makes it for the first time capable of operating on a social scale, and the reduction *ad absurdum* of property in land, on the other, are the great achievements of the capitalist mode of production. Like all of its other historical advances, it also attained these by first completely impoverishing the direct producers. (Marx, *Capital*, Volume 3, Chapter 37, 1894, p. 461, cited in Lenin 1914)

Lenin later wrote:

In agriculture, as in industry, capitalism transforms the process of production only at the price of the "martyrdom of the producer." Under capitalism, the small-holding system, which is the normal form of small-scale production, degenerates, collapses, and perishes. (Lenin 1914)

While this is a categorical statement, it is important to note that it describes a long-term tendency under capitalism and not an immediate outcome. The decline and demise of small peasant production under modern capitalism, while a continuing aspect of reality and inevitable in the historical long run, is also mediated and countered by numerous forces. Just as small industrialists do not cease to exist even under neoliberal capitalism, neither do small peasants, who are far more numerous, especially in agrarian countries devastated by centuries of colonial rule.

The Views of Karl Kautsky

Karl Kautsky's classic work, *The Agrarian Question*, argued that large farms are superior to small farms with respect to development of the productive forces.

Although the individual large farm requires relatively less living and dead stock and less labour-power relative to its surface area with the same type of

cultivation, it naturally always uses absolutely more than the individual small farm – meaning simply that the large farm can take much better advantage of the benefits of the division of labour than the small. Only large farms are able to undertake that adaptation and specialisation of tools and equipment for individual tasks which render the modern farm superior to the pre-capitalist. The same applies to breeds of animals. The dwarf-holder's cow is a dairy animal, a draught animal and breeding stock; there is no question of choosing a specific breed, or of adapting the stock and feed to specific requirements. Similarly, the dwarf-holder cannot delegate the various tasks on the farm to different individuals.

The ability of the large farm to practise this type of specialisation confers a number of advantages. The large-scale farmer can divide the work into those tasks requiring particular skill or care, and those merely involving the expenditure of energy. The first can be allotted to those workers who display particular intelligence or diligence, and who will be able to increase their skill and experience by concentrating completely, or mainly, on a particular task. As a result of the division of labour and the greater size of the farm, the individual worker will spend longer on each job, and will therefore be able to minimise the loss of time and effort associated with constant switching of tasks or workplaces. Finally, the large-scale farmer also has access to all the advantages of cooperation, of the planned collaboration of a large number of individuals with a common objective. (Kautsky [1899] 1988, p. 101)

At the same time, however, Kautsky also recognised that there were multiple reasons why small-scale farming may not be swept away by large-scale agriculture, at least in the short run. For instance, there may be important economic barriers to mechanisation becoming widespread even in large farms. Kautsky argued that if we assume that the major objective of mechanisation is to "save on wages, not labour-power," then, mechanisation in agriculture stood at a disadvantage vis-à-vis mechanisation in industry.

Whilst industry can use its machinery every day, most machines in agriculture are only required for a short period each year. Other things being equal, the labour-saving capacity of machinery is therefore much greater in industry. Given two machines, each of which can replace ten workers per day, of which one is used for ten days per year, and the other for 300, one will save 100 days labour a year, and the other 3,000. (*Ibid.*, p. 43)

As a result, "the lower the level of wages, the more difficult it is to introduce machines" (*ibid*.).

Kautsky further argued that there were many differences between agriculture and industry, and these differences may slow down the expansion of large farms in agriculture compared to large firms in industry. Therefore, a bigger farm is not necessarily better.

Under normal circumstances the large enterprise is always superior to the smaller in industry. Of course, even in industry every enterprise has its limits, beyond which it cannot go without risking profitability. The scale of the market, the size of the available capital, the amount of labour-power available, the supply of raw materials, and the limits of technology impose limits on every enterprise. However, within these limits, the larger enterprise is superior to the smaller.

In agriculture this is not wholly, or always, the case. In industry any expansion of the enterprise also represents an increasing concentration of productive forces, with all the advantages which this brings – savings in time, costs, materials, easier supervision and so on. By contrast in agriculture, other things being equal, any expansion of the enterprise means the same methods of cultivation being applied over a larger area – hence, an increase in material losses, increased outgoings on labour and means of production and greater delays associated with the transport of labour-power and materials. These are more significant in agriculture since most of its materials have a low ratio of value to volume – fertilizer, hay, straw, corn, potatoes – and methods are very primitive compared with industry. The larger the estate, the more difficult the supervision of individual workers which, under the wages system, is an important consideration. (*Ibid.*, p. 148)

Notwithstanding these nuanced arguments on why the small firm could survive for an extended period, Kautsky was firm that none of these barriers implied superiority of the small farm over the large farm. The process of agrarian transformation was dependent on multiple factors including the pace of technological development and the agro-ecological context.

The enormous advantages of the large farm more than outweigh the disadvantages of great distance – but only for a certain overall area. After a certain point, the advantages of the larger farm begin to be overtaken by the disadvantages of distance, and any further extension of the land area will reduce the profitability of the land.

It is impossible to specify in general when this point will be reached. It varies according to techniques, soil-type, and type of cultivation. A number of factors are currently moving the point upwards, such as the introduction of steam or electricity as motive power, or light railways. Others push in the opposite direction. The greater the number of animals and workers per given area of land, the greater the number of loads which have to be moved – machines and

heavy implements, fertilizers, the harvest itself – the more noticeable the effects of longer distances. In general, the maximum size of a farm beyond which its profitability declines will be less the more intensive the type of cultivation, the more capital is invested in the soil: nevertheless, developments in technology can mean that this law is broken through from time to time. (*Ibid.*)

An important point that both Lenin and Kautsky highlight, and which is of great contemporary relevance, is related to the self-exploitation of the peasant in the small farm. This feature of small-scale farming is indeed the key to its prolonged survival despite the onslaught of capitalism. Quoting John Stuart Mill's discussion on the "almost incredible toil" of small peasants, Kautsky wrote:

Small farms have two major weapons to set against the large. Firstly, the greater industriousness and care of their cultivators, who in contrast to wage-labourers work for themselves. And secondly, the frugality of the small independent peasant, greater even than that of the agricultural labourer.

The small peasants not only flog themselves into this drudgery: their families are not spared either. Since the running of the household and the farm are intimately linked together in agriculture, children – the most submissive of all labour – are always at hand! And as in domestic-industry, the work of children on their own family's small peasant holding is more pernicious than child wage-labour for outsiders. (*Ibid.*, p. 110)

But this is a losing battle with the most reactionary and ruinous consequences for the peasant's family, especially women and children.

The more agriculture becomes a science, and hence the more acute the competition between rational and small-peasant traditional agriculture, the more the small farm is forced to step up its exploitation of children, and undermine any education which the children might acquire.

It takes a very obdurate admirer of small-scale land-ownership to see the advantages derived from forcing small cultivators down to the level of beasts of burden, into a life occupied by nothing other than work – apart from time set aside for sleeping and eating.

Competing through lengthening working time always goes hand in hand with technical backwardness. The latter generates the former – and vice versa. An enterprise which cannot fight off the competition through technical innovation is forced to resort to the imposition of even greater demands on its workers. Conversely, an enterprise in which the workers can be pushed to their limits is much less exposed to the need for technical improvements than one in which workers place limits on their exertions. The possibility of prolonging working-time is a very effective obstacle to technical progress. The greater care taken by peasants in their work is less ruinous for them than their drudgery and excessive frugality. Care plays a major role in agricultural production – greater than in industry for example. And workers working for themselves will clearly exercise more care than wage-labourers. Whilst this might not necessarily be an advantage in all types of large enterprise, it certainly is as far as large-scale capitalist farming is concerned. This should not be overstated, however. The other weapons in the small farm's arsenal – overwork, undernourishment, and accompanying ignorance – offset the effects of greater care. The longer the worker has to work, the lower the standard of diet, and the less time available for education, the less care ultimately exercised in work. And what is the point of taking great care if there is no time to clean the stall and livestock, if the draught animals – often simply a dairy cow – are just as overworked and underfed themselves.

The overwork of the small independent farmers and their families is not therefore a factor which should be numbered amongst the advantages of the small farm even from a purely economic standpoint, leaving aside any ethical or other considerations. (*Ibid.*, p. 112)

Lenin agreed with Kautsky in his review of Kautsky's book that:

The fundamental and main trend of capitalism is the elimination of small production by large-scale production both in industry and in agriculture. But this process must not be taken only in the sense of immediate expropriation. This elimination process also includes a process of ruination, of deterioration of the conditions of farming of the small farmers which may extend over years and decades. This deterioration manifests itself in overwork or underfeeding of the small farmer; in an increased burden of debt; in the deterioration of cattle fodder and the condition of the cattle in general; in the deterioration of the methods of cultivating and manuring the land; in the stagnation of technical progress, etc. (Lenin 1972, p. 248)

Small production in agriculture is doomed to extinction and to an incredibly crushed, oppressed position under capitalism. Being dependent on big capital and being backward compared with large-scale production in agriculture, small production can hold on only because of the desperately reduced consumption and laborious, arduous toil. The dispersion and waste of human labour, the worst forms of dependence of the producer, exhaustion of the strength of the peasant family, of peasant cattle and peasant land – this is what capitalism brings to the peasant everywhere. (*Ibid.*, p. 288)

"Small-scale production is compatible only with a narrow and primitive framework of production and society" (Lenin 1914).

On balance it is clear that, in the classical Marxist literature, the way forward – the democratic mode of advance – is for the working class to fight and overthrow capitalism in alliance with the peasantry, in countries where such an opportunity presented itself. It was to be the task of the working class-led democratic movement to defend the rights of the peasantry without succumbing to a reactionary outlook. In particular, democratic movements should seek to provide the small peasant the power of scale while ensuring that issues of material and cultural deprivation of peasant households (graphically described by Kautsky and Lenin) were addressed through collective action. It is noteworthy that, even while criticising the Narodniks for their romantic notions of peasant homogeneity, Lenin also put forward the concept of a worker-peasant alliance in the democratic revolution. In the course of the transition of the Russian revolution from February 1917 to October 1917, he put forward the slogan of distribution of seized land among the peasantry rather than its nationalisation, recognising the democratic character of the small peasantry in a historical context in which state power was with the working people. The recognition that petty peasant production must not be romanticised is not inconsistent with fighting for pro-small farmer public policies in specific circumstances.

The Marxist View of the Peasantry in the Indian Context

The attitude towards the peasantry in the context of India's development, especially after the country won political independence, has been a matter of much discussion in Indian Marxist literature. Comprehensive land reform is essential to the completion of the democratic revolution in India. Achievement of the democratic revolution under a working class leadership in alliance with the peasantry, especially poor peasants and agricultural labourers as key rural classes in this process, is necessary for further democratic advance. Such a view envisages the continued presence of a large population of small and middle peasants for a long time. We need public policy that supports the peasantry, especially focusing on developing the productive forces among them.

This viewpoint is quite different from one that argues for support to small farmers on grounds of "efficiency," based on an alleged inverse relationship between farm size and productivity. In the Indian debate on the relationship between farm size and productivity, there is no consensus at all that small farms are more "efficient" than large farms. With advances in the productive forces over the years, especially in the decades of the "green revolution," the "inverse relationship" hypothesis has not had many takers.

SMALL FARMERS AND SMALL FARMING

From the early years of the new agricultural strategy, there has been official recognition of the preponderance of the small peasantry in India. Many policy measures address, in their formulation, the specific problems of "small" and "marginal" farmers. The establishment of the Small Farmers Development Agency (SDFA) and the Scheme for Marginal Farmers and Agricultural Labourers (MFAL) in 1971 was a case in point. Partly intended to quell what was viewed as rising peasant militancy in the late 1960s and early 1970s, public policies associated with the "green revolution," despite their overall orientation of "betting on the strong" in a context of entrenched land monopoly, also addressed – at least in terms of policy statements – the issues of small farmers. This was especially true of the long phase of social and development banking from the 1970s through the 1980s. The beginning of the 1990s, with the acceleration of neoliberal reforms, announced the arrival of an altogether different regime.

POLICY DEFINITIONS OF SMALL FARMERS IN INDIA

Small farms and small-scale farming are distinct concepts. The Marxist understanding of scale and of differentiation of cultivators is not based on the size of holdings and their physical extent alone. As V. K. Ramachandran has argued,

a single size category of landholding may conceal considerable variations in the physical characteristics of land – variations, for instance, in the irrigation and drainage facilities available to the land, the type of soil and its fertility, land utilisation and cropping pattern and so on. (Ramachandran 1980, p. 2)

The analysis in this volume does not include farms that are owned or operated by corporations, cooperatives or other such organisations; it is confined to small farms that are also family farms. When 2014 was declared the International Year of Family Farming, the Food and Agriculture Organisation (FAO) of the United Nations defined family farms as a means of organising agricultural, forestry, fisheries, pastoral, and aquaculture production that is managed and operated by a family, and predominantly reliant on family labour including both women's and men's labour. The family and the farm are linked, co-evolve, and combine economic, environmental, social, and cultural functions (FAO 2013, p. 2).

Estimates suggest that family farms account for 98 per cent of all farms worldwide, 53 per cent of world food production, and 53 per cent of agricultural land (Graeub *et al.* 2016). In India and other South Asian countries, corporate farming is limited, and so family farming is the norm

or near-universal. The other distinctive organisational form in South Asian agriculture is the plantation. Although some plantations may be familyowned, in general they grow crops for commercial purposes and by means of hired labour. Plantations are excluded from further discussion in this chapter as well as this volume.

Multiple criteria are needed to define small farms if account is to be taken of the type and scale of farming. However, a size-based criterion is often seen as practical. Thus, many national governments define small holders or small farmers in official documents in terms of size of landholding, though the precise measure or cut-off varies widely. The Agricultural Census and the Ministry of Agriculture, Government of India, use the following five-fold classification:

- Marginal, or below 1 hectare;
- Small, or between 1 and 2 hectares;
- Semi-medium, or between 2 and 4 hectares;
- Medium, or between 4 and 10 hectares; and
- Large, or above 10 hectares.

In India, Ministry of Agriculture and government policies/schemes related to farmers (such as the policy on crop insurance) identify small farmers as those operating less than or equal to 2 hectares (5 acres), a definition based solely on the extent of operational holding.

There are, however, two other definitions that are based on the extent of landholding.

The Government of India has taken 10 hectares as the ceiling to define low income or resource-poor farmers for purposes of commitments to the World Trade Organisation (WTO). In India's Supporting Table Relating to Commitments on Agricultural Products in Part IV of the land Uruguay Round Schedule (WTO document G/AG/AGST/IND), landholders with less than 10 hectares are taken as low income or resource poor. (Sharma 2012)

This is in conformity with the bimodal definition of the High Level Panel of Experts of the FAO (HLPE 2013). The bimodal approach divides land distribution in the Agricultural Census of India into two different groups, small and large, where small farms indicate a size of less than 10 hectares.

Secondly, there is a set of policy definitions embedded in the land reform laws of different States of India. Land reform legislation specifies a ceiling in terms of the extent of land. Land here is usually demarcated by quality on the basis of irrigation or other characteristics – such as land on which plantation crops are grown – or on the basis of expected value of production from land or the revenue assessment on the land. In particular, the idea of a "standard acre" has been used in the context of land reform legislation. The norms vary across States. In Odisha, a standard acre refers to 1 acre of perennially irrigated land which is assured of water supply for at least three crops in a year, or 4 acres of dry land. In Tripura, a standard acre varies from 1 acre of lowland (*nal* or *lunga*) to 3 acres of upland (*tilla*).

Variations in ceilings across the country illustrate the diversity of farming systems. Land reform legislation is concerned with defining the upper limit of the extent of land that can be held by an individual or family, an issue that is distinct from defining a small farm.

To sum up, the policy definition of small farms in India is in general based on the extent of landholdings, with some provisions for incorporating criteria reflecting the quality of land (in terms of irrigation) but excluding other criteria that characterise the economic size of the farm as a unit.

Definition of Small Farms in Indian Studies

In the scholarly literature in India, while the extent of landholding has been used mostly to define small farms, further distinctions have been made based on the quality of land, or agro-ecological and physical features that can be used to characterise quality (Vyas *et al.* 1969). Scholars undertaking field studies have introduced variations in the extent of land to accommodate differences in quality of land. The most frequently made distinction is as between dry land and wet land, that is, on the basis of availability of irrigation, on the assumption that returns from crop cultivation are distinctly higher on irrigated than unirrigated land. Some studies, particularly of south India, use the categorisation of dry and wet villages.⁶

The PARI studies, based on detailed village surveys conducted by FAS, differentiate among cultivator households on the basis of socio-economic class: a category that takes account of ownership of the means of production, forms of labour employed, and household incomes.

Working Definition for This Book

There can be no unique or strict definition of what constitutes a small farm or smallholder agriculture. In this volume, where data from a wide variety of villages are analysed, for purposes of simplicity and comparability, the starting

⁶ See, for instance, Athreya, Djurfeldt, and Lindberg (1990), and Yanagisawa (2008).

definition of small farmers is based on the extent of operational landholding, with allowance for differences in irrigation.

First, in each village, households primarily dependent on non-agricultural incomes (even if they owned and operated cropland) were excluded. Among the remaining households, that is, those primarily dependent on crop cultivation and/or allied activities, we used a two-fold categorisation: small farms and large farms. Small farmer households operated up to 5 acres (2 hectares) of irrigated land or 15 acres (6 hectares) of unirrigated land. (In other words, we have assumed that 1 acre of irrigated land = 3 acres of unirrigated land.) All other cultivator households were termed "large" farmers. Landlords and capitalist farmers constitute a separate category.

Each author was requested to use this as a working definition for purposes of their study, but asked to evaluate it in the course of analysis. To put it differently, one of the research questions taken up in this volume is whether, and to what degree, categorisation by extent of landholding is correlated with other variables of interest such as yield and income.

Neoliberal Reforms and Agrarian Distress

The PARI surveys of the FAS have been carried out from 2006 onwards. A new policy regime emerged in India in 1991. While this new policy regime had continuities with the past, it had some altogether distinctive features (Ramachandran and Swaminathan 2000):

- reversal of land reform and acceleration, through legislation, of the takeover of agricultural land;
- changes in the policies of administered agricultural input costs and output prices, and sustained reduction in input subsidies;
- cutting back of public investment in rural physical and social infrastructure;
- moving towards the privatisation of public facilities for marketing and storing agricultural products;
- severe weakening of the institutional structure of social and development banking;
- lowering of barriers on trade in agricultural commodities and removal of quantitative restrictions on the import of agricultural products, resulting in considerable price volatility for agricultural outputs;
- weakening of the public infrastructure for storage and marketing;
- cutting back the public distribution system; and
- undermining national systems of research, and mechanisms for the protection of national plant and other biological wealth.

Relatively unfettered entry and exit of capital as finance has been a key feature of the country's policy regime since 1991. There has been a consequent emphasis on reducing the fiscal deficit (legislated as the Fiscal Responsibility and Budget Management Act in 2004), almost entirely through expenditure reduction. This policy compulsion has meant sustained attacks on state support to agriculture and the peasantry. It has led to unprecedented agrarian distress in large parts of the country, especially in the period from 1997 to 2003. While there has been some recovery in agriculture since then, the economic viability of small farms has been seriously challenged across the country. This context needs to be kept in mind in the ensuing discussions. The period over which the PARI surveys were carried out – 2006 to 2016 – witnessed some recovery in agriculture, but of an uncertain and non-uniform kind across time, space, crops, and classes.

How do the PARI data speak to issues concerning small-scale farming?⁷ An important gap in the literature on small-scale agriculture is a critical analysis, based on empirical evidence, of many of the accepted theoretical assumptions about and the proclaimed benefits of small-scale farming. The present volume addresses some of these issues using the empirical material collected by the Foundation for Agrarian Studies from 2006.

The objectives of PARI are:

- To analyse village-level production, production systems and livelihoods, and the socio-economic characteristics of different strata of the rural population.
- To conduct specific studies of sectional deprivation in rural India, particularly with regard to Scheduled Caste and Scheduled Tribe populations, women, specific minorities, and the income-poor.
- To report on the state of basic village amenities and the access of rural people to the facilities of modern life.

PARI household data come from villages located in the following States: Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan, Telangana, Tripura, Uttar Pradesh, and West Bengal. In each of these States, the PARI team surveyed two or three villages in different agroecological regions. The villages cover a wide range of agro-ecological regions in the country. State-level mass organisations suggested the regions and the districts they would like to have studied, and helped FAS in the final selection of villages from a shortlist prepared by the Foundation.

⁷ This section draws substantially on the description provided regarding PARI on the FAS website: http://fas.org.in/category/research/project-on-agrarian-relations-in-india-pari/

The PARI team generally conducts a census-type survey that covers every household and individual in each selected village; in five of the 22 villages surveyed so far, the team conducted sample surveys after initial houselisting surveys. A village-level questionnaire is also canvassed in each village. In addition, a village profile, based on existing sources of secondary data, is constructed.

The information gathered through the questionnaire covers the following (each of these items of information is further disaggregated in the questionnaire):

- Demographic data, including data on caste and religion
- Education levels
- Occupation and work status
- Ownership holdings and operational holdings of households
- Land sales and purchases
- Forms and terms of land tenure
- Cropping pattern and crop production
- Animal resources
- Costs of cultivation
- Ownership of assets
- Participation in selected government schemes
- · Household electricity, sanitation, and water facilities
- Housing
- Incomes and earnings
- Patterns and levels of employment
- Forms of labour
- Indebtedness.

It is noteworthy that there are no official sources of serial data on household incomes in rural India. The National Sample Survey (NSS) provides regular data on monthly per capita household expenditure, and the Comprehensive Scheme for the Study of Cost of Cultivation of Principal Crops in India (CCPC) provides regular data on farm business incomes for selected crops. The PARI village data have information from all sources of tangible household income, under the following heads:

- Income from crop production
- Income from animal resources
- Income from agricultural and non-agricultural wage labour
- Income from salaries
- Income from business and trade, rent, interest earnings, pensions, remittances, scholarships, and all other sources.

Data on crop production and cost of cultivation, while based on the CCPC methodology, are somewhat more detailed in the PARI database, which includes household-wise data on the following variables:

- Value of hired human labour
- Value of hired bullock labour
- Value of owned bullock labour
- Value of owned machinery
- Value of hired machinery
- Value of seed, home-produced and purchased
- Value of insecticides and pesticides
- Value of manure, home-produced and purchased
- Value of fertilizers
- Irrigation charges
- Land revenue
- Marketing costs
- Miscellaneous expenses
- Rent paid for leased-in land
- Interest on working capital
- Depreciation of implements and machinery.

Both the level of detail and the quality of data collection make PARI data an exceptionally valuable base for investigating many issues concerning the agrarian economy, and rural socio-economic relations, structures, and processes. Specifically for the purposes of this volume, which focuses on small farms and small farmers in India, the detailed, itemised PARI data listed above can be used to examine questions concerning the socio-economic characteristics of small farms, and the difference in this regard between small and large farms. We can thus examine such issues as the productivity of small farms as against large farms; the economic viability of small farming; the multiple sources of household income for small farmers and their respective relative contributions; the educational characteristics of small farmer households; child labour; patterns of input use and the implications thereof for environmental sustainability; the extent of labour performed by men and women from small farmer households on their own holdings and elsewhere; the multiple modes of exploitation to which persons belonging to small farmer households are subjected; and so on.

The volume also makes suggestions for state policy that can enable small farmers to enhance their economic viability and lessen the extent of their deprivation with respect to specified parameters. Without going into the analyses and conclusions that emerge in the subsequent chapters, it can be stated here that they do not support the claims of efficiency, equity, food security, social solidarity, and environmental sustainability claimed for small farms by advocates of small-scale farming. Our analysis also brings out the need for stronger state support to enable small farmers to meet the challenges they now face.

This chapter draws from three background notes: Kumar (2016), Ramakumar (2016), and Sarkar (2016), prepared as part of the project on Small-Scale Farming in Indian Agriculture. We are grateful to V. K. Ramachandran for comments and suggestions, and to Aparajita Bakshi for a note on ceilings under land reform legislation.

REFERENCES

- Athreya, V. B., Djurfeldt, G., and Lindberg, S. (1990), *Barriers Broken*, Sage Publications, New Delhi.
- Barrett, Christopher B., Bellemare, Marc F., and Hou, Janet Y. (2010), "Reconsidering Conventional Explanations of the Inverse Productivity-Size Relationship," *World Development*, vol. 38, no. 1, January, pp. 88–97.
- Bernstein, H. (2009), "V.I. Lenin and A.V. Chayanov: Looking Back, Looking Forward," *The Journal of Peasant Studies*, vol. 36, no. 1, pp. 55–81.
- Byres, Terence J. (2004), "Neo-Classical Neo-Populism 25 Years On: *Déjà Vu* and *Déjà Passé*. Towards a Critique," *Journal of Agrarian Change*, vol. 4, pp. 17–44; available at doi:10.1111/j.1471-0366.2004.00071.x, viewed on 11 January 2017.
- Chappell, M. J., Wittman, H. K., Bacon, C. M., Ferguson, B. G., García Barrios, L. E., and García Barrios, R. (2013), "Food Sovereignty for Poverty Reduction and Biodiversity Conservation in Latin America," available at http://dx.doi.org/10.12688/f1000research.2-235.v1, viewed on 11 January 2017.
- Engels, Friedrich (1848), "The Frankfurt Assembly Debates: The Polish Question," *Neue Rheinische Zeitung*, no. 81, August 20; available at https://www.marxists.org/archive/marx/works/1848/08/09.htm, viewed on 22 May 2017.
- Engels, Friedrich (1893), "Letter to Nikolai Danielson," October 17, 1888, in *Marx and Engels: Collected Works*, Volume 48, pp. 228–30; available at https://www.marxists.org/archive/marx/works/1893/letters/93_10_17.htm, viewed on 22 May 2017.
- Food and Agriculture Organisation (FAO) (2013), "Master Plan," available at http:// www.fao.org/fileadmin/user_upload/iyff/docs/Final_Master_Plan_IYFF_2014_30-05.pdf, viewed on 11 January 2017.
- Graeub, Benjamin E., Chappell, M. Jahi, Wittman, Hannah, Ledermann, Samuel, Kerr, Rachel Bezner, and Gemmill-Herren, Barbara (2016), "The State of Family Farms in the World," *World Development*, vol. 87, November, pp. 1–15; available at http:// dx.doi.org/10.1016/j.worlddev.2015.05.012, viewed on 11 January 2017.
- Haque, T. (2016), "Sustainability of Small Farms in Asia Pacific Countries: Challenges and Opportunities in Family Farming," Academic Foundation, New Delhi.
- High Level Panel of Experts (HLPE) (2013), Investing in Smallholder Agriculture for Food Security: A Report by the High Level Panel of Experts on Food Security and Nutrition of

the Committee on World Food Security, Rome, available at http://www.deza.admin.ch/ ressources/resource_en_225682.pdf, viewed on 11 January 2017.

- Holt-Gimenez, Eric (2002), "Measuring Farmers' Agro Ecological Resistance after Hurricane Mitch in Nicaragua: A Case Study in Participatory, Sustainable Land Management Impact Monitoring," *Agriculture, Ecosystems and Environment*, vol. 93, pp. 87–105; available at doi: 10.1016/S0167-8809(02)00006-3, viewed on 11 January 2016.
- Jarvis, D. I. *et al.* (2008), "A Global Perspective of the Richness and Evenness of Traditional Crop-Variety Diversity Maintained by Farming Communities," *Proceedings of the National Academy of Sciences of the USA*, vol. 105, pp. 2101–03.
- Kautsky, Karl ([1899] 1988), *The Agrarian Question*, translated from the German by Pete Burgess, Zwan Publications, London and Winchester.
- Kitching, Gavin (1982), Development and Underdevelopment in Historical Perspective: Populism, Nationalism and Industrialisation, Routledge, New York.
- Kumar, Deepak (2016), "Note on Small-Scale Farming in Contemporary Literature," unpublished note.
- Lenin, V. I. ([1907] 1972), Collected Works, vol. 13, fourth English edition, Foreign Languages Publishing House, Moscow; available at http://www.marx2mao.com/ Lenin/APFR07.html, viewed on 22 May 2017.
- Lenin, V. I. (1914), Karl Marx: A Brief Biographical Sketch and an Exposition of His Doctrine, available at https://creandopueblo.files.wordpress.com/2011/09/leninkarlmarx.pdf, viewed on 22 May 2017.
- Lyson, T. A., Torres, Robert, and Welsh, Rick (2001), "Scale of Agricultural Production, Civic Engagement and Community Welfare," *Social Force*, vol. 80, pp. 311–27.
- Nagayets, O. (2005), "Small Farms: Current Status and Key Trends," available at https://pdfs.semanticscholar.org/921f/bff5587afbb98550137bed8156771c9b2b88.pdf, viewed on 30 April 2017.
- Patnaik, Utsa (1979), "Neo Populism and Marxism: The Chayanovian View of the Agrarian Question and Its Fundamental Fallacy," *The Journal of Peasant Studies*, vol. 6, issue 4, pp. 375–420.
- Ramachandran, V. K. (1980), "A Note on the Sources of Official Data on Landholdings in Tamil Nadu," Data Series No. 1, Madras Institute of Development Studies, Chennai.
- Ramachandran, V. K., and Swaminathan, Madhura, eds. (2002), Agrarian Studies: Essays on Agrarian Relations in Less-Developed Countries, Tulika Books, New Delhi.
- Ramakumar, R. (2016), "Notes on Small Farmers and Small Farming: A Review of the Classical Marxist Literature," unpublished note.
- Sandhu, Harpinder, Wratten, Steve, Costanza, Robert, Pretty, Jules, Porter, John R., and Reganold, John (2015), "Significance and Value of Non-Traded Ecosystem Services on Farmland," February 17, available at https://doi.org/10.7717/peerj.762, viewed on 11 January 2017.
- Sarkar, Biplab (2015), "Productivity and Income Levels of Small Holders in India," background paper for the report prepared by M. S. Swaminathan Research Foundation (MSSRF) for assisting the World Food Programme (WFP) in achieving the Zero Hunger Challenge.
- Sarkar, Biplab (2016), "Levels and Variations in Crop Income in a Small Farmer Economy: A Study of Three Villages of West Bengal," unpublished note.

- Sen, A. (1962), "An Aspect of Indian Agriculture," *The Economic Weekly*, Annual Number, February.
- Sharma, S. K. (2012), "Assessing the Extent of Low Income or Resource Poor Farmers in India (with Special Reference to Article 6.2 of AoA)," Centre for WTO Studies, June.
- Trapeznikov, S. P. (1981), *Leninism and the Agrarian and Peasant Question*, vol. 1, Progress Publishers, Moscow.
- Yanagisawa, H. (1996), A Century of Change: Caste and Irrigated Lands in Tamilnadu 1860s-1970s, Manohar Publishers and Distributors, New Delhi.