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RESEARCH ARTICLE

Farmers' Suicides in India: Magnitudes, Trends, and Spatial Patterns, 1997–2012

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Abstract: The last decade has seen a high degree of agrarian distress in India, of which the large number of suicides by farmers across the country is stark evidence. Despite one-off efforts by some State governments, activist organisations, and the press to enquire into the phenomenon, there is a need for a comprehensive picture based on a single, nation-wide data source. The present paper is a modest attempt to fill this gap in analysis. Using secondary data on suicides by profession, obtained from the National Crime Records Bureau (NCRB), the paper provides a simple analysis of the magnitude of, and trends in, farmers' suicides in India from 1997 to 2012, and of regional patterns in these suicides. We argue that while the socio-economic causes underlying farm suicides are complex and require further empirical work, there can be little denying that farm suicides are strongly linked to the larger context of agrarian distress in the country.

Keywords: Farmers' suicides, agrarian crisis, suicide rate, Maharashtra, India, NCRB data set.

The large number of suicides by farmers in various parts of the country is perhaps the most distressing phenomenon observed in India over the last decade. These suicides, which reached almost epidemic proportions in certain pockets of the country, were first recognised and reported by an alert press around the late 1990s. The public concern that these press reports created forced some State governments, such as those of Karnataka, Andhra Pradesh, and Maharashtra, to set up Commissions to enquire into the phenomenon. The databases on which the press and the Commissions of

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¹ This paper is a revised and updated version of Nagaraj (2008).

² This paper was presented at the Tenth Anniversary Conference of the Foundation for Agrarian Studies, "On Agrarian Issues," Kochi, January 9–12, 2014.

Enquiry depended were somewhat uncoordinated and sporadic: they were either impressionistic, or based on information collated by activist sources and organisations such as Kisan Sabhas or small-scale surveys conducted by the Commissions of Enquiry. While the extremely useful role that the press and the Commissions of Enquiry played in informing the public about this distressing situation has to be recognised, these efforts could be — and often were — dismissed as the products of the fevered imaginations of some journalists and social activists (Bhagwati and Panagariya, 2013; Jadhav 2008; Kapoor 2013). There was thus a need to probe the issue by utilising a data source that would provide a comprehensive, nation-wide picture. This paper is a modest attempt to meet that need. Its basic objective is to put together and carry out a preliminary analysis of the secondary data that are available on farmers' suicides in the country.

The secondary source of data that we have used in this paper is the report titled *Accidental Deaths and Suicides in India*, published annually by the National Crime Records Bureau (NCRB), Ministry of Home Affairs, Government of India. Data compiled from police records furnished to the NCRB “by the Chiefs of Police of all States/Union Territories and Megacities” have been published in these annual reports from 1967 onwards. While the reports of earlier years provide basic data on the number of suicides in different States in the country, the reports have become more detailed of late, providing information on subjects such as the distribution of suicidal deaths by sex and age, by causes of suicide, by marital status, by educational level, by means adopted, and — most importantly for our purpose here — by profession.

The number of professional categories by which suicide victims are identified and distributed has increased over time in the reports. At present, there are 12 such categories: housewife, service (government), service (private), public sector undertaking, student, unemployed, self-employed (business activity), self-employed (professional activity), self-employed (farming/agriculture), self-employed (others), retired persons, and “others.” The category “self-employed (farming/agriculture)” — which can be taken as representing farmers — was added for the first time in 1995, and the most recent year for which data on this category of suicide victims are available is 2012. However, for the year 1995, such data are not available for a State like Tamil Nadu, which began reporting only in 1996; moreover, a number of other States and Union Territories, large and small, such as Rajasthan, Jammu and Kashmir, Arunachal Pradesh, Mizoram, Sikkim, Andaman and Nicobar Islands, and Pondicherry (Puducherry) reported nil farmers' suicides in 1995. The dataset appears to have been incomplete even in 1996, when Jammu and Kashmir, Pondicherry, Mizoram, Arunachal Pradesh, and Manipur continued to report nil farmers' suicides. We have a more or less complete and consistent set of data only from 1997 onwards. The analysis in this paper is therefore largely restricted to the period 1997-2012. Where we have consistent data from 1995 onwards, as in the case of the region where farmers' suicides are largely concentrated in the country, we have also presented the picture for the period 1995-2012.

The main thrust of this paper is to present a simple analysis of this dataset to study:

1. the magnitude and trends of farmers' suicides in India from 1997 to 2012; and
2. regional patterns, if any, in the incidence and trends of these suicides.

The causes underlying farmers' suicides — like those underlying any suicide — are extremely complex, involving socio-economic, cultural, and psychological factors. While we do not propose to deal with these in any detail in this paper, we would like to put forward some preliminary observations on this matter. We recognise that any mono-causal explanation of this complex and distressing phenomenon would be inadequate, yet we would like to point to the central role played by the present agrarian crisis in the country and the state policies underlying this crisis. Since this is an issue that demands a substantial amount of further work, the present paper is, in this sense, largely descriptive rather than analytical. We should also note here that while there is a substantial literature on the recent spate of farmers' suicides in the country, we have not undertaken any survey of this literature in this paper. The purpose of this paper, we reiterate, is a modest one: of collating and presenting the secondary data available on this phenomenon, and to present some patterns that we have observed.

MAGNITUDE AND TRENDS OF FARMERS' SUICIDES IN INDIA, 1997-2012

Number of Farm Suicides

In the 16-year period between 1997 and 2012, as many as 264,388 farmers committed suicide in India (see Table 1). If we consider the period from 1995 to 2012, the figure is close to 300,000. The exact figure for this 18-year period, 298,084, would be an underestimation, since a couple of large States such as Tamil Nadu and Rajasthan, and a number of smaller States like Pondicherry did not report any farmers' suicides for one or the other — or both — of the two years 1995 and 1996. Thus, going by the official data, on average, nearly 16,500 farmers committed suicide every year over the last 16 years or so. It is also clear from Table 1 that while every sixth or seventh suicide in the country was a farm suicide till 2009, this rate tapered off marginally in 2010 and 2011, but rose again in 2012.

We believe that even this number, shocking as it is, is in fact an underestimation of the actual number of farm suicides in the country during this period. These data published by the NCRB, as we have noted above, are put together from the police records of different States. Our experience during field visits in Andhra Pradesh as part of the Farmers' Commission set up by the State government in 2004 was that the police often adopted a rather strict and stringent definition of a farmer in identifying a farm suicide.³ Title to land was taken as the criterion for identifying the farmer and

³ Two of the authors, Nagaraj and Sainath, were associated with the Commission on Farmers' Welfare, Government of Andhra Pradesh, as member and special invitee, respectively.

Table 1 *Farmers' suicides and all suicides in India, 1997-2012 in numbers*

	Year	Farmers' suicides		All suicides	
		Number	As per cent of all suicides	Number	Suicide rate (per 100,000 population)
1	1997	13622 (100)	14.2	95829 (100)	10.0
2	1998	16015 (118)	15.3	104713 (109)	10.8
3	1999	16082 (118)	14.5	110587 (115)	11.2
4	2000	16603 (122)	15.3	108593 (113)	10.6
5	2001	16415 (121)	15.1	108506 (113)	10.6
6	2002	17971 (132)	16.3	110417 (115)	10.5
7	2003	17164 (126)	15.5	110851 (116)	10.4
8	2004	18241 (134)	16.0	113697 (119)	10.5
9	2005	17131 (126)	15.0	113914 (119)	10.3
10	2006	17060 (125)	14.4	118112 (123)	10.5
11	2007	16632 (122)	13.6	122637 (128)	10.8
12	2008	16196 (119)	13.0	125017 (130)	10.8
13	2009	17368 (127)	13.7	127151 (133)	10.9
14	2010	15964 (117)	11.9	134599 (140)	11.4
15	2011	15652 (115)	11.4	137210 (143)	11.2
16	2012	16272 (119)	11.9	136286 (142)	11.2
Total number of suicides in the period 1997-2012		264388	14.2	1878119	-
Annual compound growth rate (in per cent) in the period 1997-2012		1.12	-	2.23	-

Notes: 1. Chhattisgarh and Puducherry reported zero farmers' suicides in 2011. In 2012, Puducherry reported zero farmers' suicides, Chhattisgarh reported four farmers' suicides and West Bengal had "not reported" farmers' suicides. We believe that these figures do not reflect the reality, and have therefore decided to use the triennium average ending 2010-11 to provide an estimate of farmers' suicides in 2011-12 in the States of Puducherry, Chhattisgarh and West Bengal. Consequently, all-India figures have been adjusted and therefore vary from the figures given in the reports published annually by the National Crime Records Bureau (NCRB); however, the suicide rates for all years are as given in the NCRB reports.

2. Figures in brackets give indices with 1997 as the base.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues.

this often left out a genuine farmer from the count. For example, a tenant farmer who leased in land and hence did not have a title to the land, or a farmer whose land title was in his father's name, or a woman farmer whose land title was in her husband's or father-in-law's name, all could be denied the status of a farmer.

It is also clear from Table 1 that the number of farm suicides in the country kept up a more or less steady increase till 2004, then tapered off marginally, and increased again in 2009 and 2012. The year 1998 showed a sharp increase in the number of farm suicides — an 18 per cent jump from the previous year — and the number remained more or less steady at around 16,000 suicides per year over the next three years (up to 2001). The year 2002 once again saw a sharp increase — close to a 10 per cent increase compared to 2001; and the peak was reached in 2004, when 18,241 farmers' suicides were recorded. The average number of farm suicides per year in the five-year period 2002-6 stood at 17,513, substantially higher than the average (15,747 per year) for the previous five-year period or the average (16,362 per year) for the subsequent five-year period.

Farm suicides increased at an annual compound growth rate of around 1 per cent per annum over the period 1997-2012; this rate is lower than the rate at which general suicides increased in the same period. But, as we shall see later, there were certain regions in the country where farm suicides were largely concentrated and where the problem saw a very sharp increase over this period, with farm suicides in these regions increasing at a much faster rate than both farm suicides across the country and general suicides in these regions. We should also note here that this increase in farm suicides was in fact taking place on a constant, or even declining, base of number of farmers, while the increase in general suicides was taking place on an increasing base of general population — which is why the general suicide rate in the country, defined as the number of suicides per 100,000 population, did not see much change over this period. We shall return to this later in the paper.

Gender Composition of Farm Suicides

Farm suicides, according to the official data, are overwhelmingly by male farmers. Considering the period 1997-2012 as a whole, about 85 per cent of all farm suicides were by male farmers, and every fifth male suicide in the country was a farm suicide (see Table 2). Suicides in general, among the population as a whole, were also largely concentrated among males, but the degree of concentration here was significantly lower than in the case of farm suicides: male suicides in the general population accounted for nearly 63 per cent of all suicides in the country. As farmers' suicides were concentrated among males, the pattern of growth of male suicides determined the overall pattern of farm suicides. They reached a peak in 2004, when 15,929 male farmers committed suicide. The number of suicides by male farmers grew at around 1.37 per cent per annum from 1997 to 2012; the number of female farm suicides, in sharp contrast, remained almost static during the same period. Thus, the extent of

Table 2 *Farmers' suicides and all suicides in India, by sex, 1997-2012 in numbers*

Year	Farmers' suicides					All suicides			
	Male		Female		Male farmers' suicides as per cent of all farmers' suicides	Male	Female	Male suicides as per cent of all suicides	
	Number	As per cent of all male suicides	Number	As per cent of all female suicides					
1	1997	11229 (100)	20.0	2393 (100)	6.1	82.4	56281 (100)	39548 (100)	58.7
2	1998	12986 (116)	21.1	3029 (127)	7.0	81.1	61686 (110)	43027 (109)	58.9
3	1999	13278 (118)	20.3	2804 (117)	6.2	82.6	65488 (116)	45099 (114)	59.2
4	2000	13501 (120)	20.4	3102 (130)	7.3	81.3	66032 (117)	42561 (108)	60.8
5	2001	13829 (123)	20.9	2586 (108)	6.1	84.2	66314 (118)	42192 (107)	61.1
6	2002	15308 (136)	22.1	2663 (111)	6.5	85.2	69332 (123)	41085 (104)	62.8
7	2003	14701 (131)	20.9	2463 (103)	6.1	85.7	70221 (125)	40630 (103)	63.3
8	2004	15929 (142)	21.9	2312 (97)	5.6	87.3	72651 (129)	41046 (104)	63.9
9	2005	14973 (133)	20.5	2158 (90)	5.3	87.4	72916 (130)	40998 (104)	64.0
10	2006	14664 (131)	19.4	2396 (100)	5.6	86.0	75702 (135)	42410 (107)	64.1
11	2007	14509 (129)	18.3	2123 (89)	4.9	87.2	79295 (141)	43342 (110)	64.7
12	2008	14145 (126)	17.6	2051 (86)	4.6	87.3	80544 (143)	44473 (112)	64.4
13	2009	14951 (133)	18.4	2417 (101)	5.3	86.1	81471 (145)	45680 (116)	64.1
14	2010	13592 (121)	15.6	2372 (99)	5.0	85.1	87180 (155)	47419 (120)	64.8
15	2011	13354 (119)	15.0	2298 (96)	4.8	85.3	89122 (158)	48088 (122)	65.0
16	2012	13953 (124)	15.7	2318 (97)	4.9	85.7	88981 (158)	47305 (120)	65.3
Total number of suicides									
in the period 1997-2012		224902	19.2	39485	5.7	85.0	1183216	694903	62.8
Annual compound growth									
rate (in per cent) in the									
period 1997-2012		1.37	-	nil	-	-	2.90	1.13	-

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues.

concentration of farm suicides among males witnessed a steady increase over the period 1997-2012.

Part of the reason for this overwhelming concentration of farm suicides among males could be because of undercounting of female farm suicides in the police records on which the NCRB data are based. We had noted earlier that the criterion generally adopted in these records for identifying a farmer is title to land, and since the title is generally in the name of the male head of the household, it is very likely that a female farmer who commits suicide will not be recorded as a farmer. But we also think that, in spite of possible underestimation, the high concentration of farm suicides among males in fact represents an objective reality. In a context where the male head of a household is generally considered the breadwinner, the predominance of male suicides suggests that economic distress is a major motivating factor underlying a large number of suicides, and that the acute agrarian crisis in the country is the basis for this distress.

Suicide Rates among Farmers, 2001 and 2011

The suicide rate among farmers, defined as the number of farmer suicides per 100,000 farmers, can be calculated on a reliable basis only for the years 2001 and 2011. It is only for these two years that we have reliable data, from the Census of India, on the number of farmers in the country as a whole and in different States. Extrapolation of these data for other years — unlike in the case of the general population — would involve far too many imponderables, particularly during a period of acute agrarian crisis, and hence would not provide reliable estimates. Given this, we have calculated farm suicide rates for all farmers and for male and female farmers separately, only for the years 2001 and 2011. The data are presented in Table 3 below.

The farm suicide rate in the country in 2001 was 12.9, about one-fifth higher than the general suicide rate, which stood at 10.6 in that year. As one would expect, the suicide rate among male farmers was much higher at 16.2 per cent, which was nearly two-and-a-half times the rate for female farmers at 6.2 per cent. The suicide rate among male farmers was also considerably higher, by about 30 per cent, than the general male suicide rate in the country in 2001. By the year 2011, the farm suicide rate in the country had not tapered off compared to 2001; if anything, it recorded a marginal increase.

Even these high rates of farm suicides are underestimates, we believe, for a number of reasons. First, as pointed out earlier, it is likely that there is undercounting of the number of farm suicides in the police records. Secondly, while the numerator in the calculation of these rates is likely to be an undercount, the denominator that we have used, i.e., the Census data for the number of cultivators in the year 2001, employs a rather liberal conception of a cultivator. This number includes

Table 3 *Suicide rates among farmers and the general population by sex, India, 2001 and 2011, in per cent*

		2001			2011		
		All	Male	Female	All	Male	Female
Suicide rate among farmers (i.e. farmers' suicides per 100000 farmers)	Considering all cultivators (main plus marginal) as farmers	12.9	16.2	6.2	13.2	16.1	6.4
	Considering only main cultivators as farmers	15.8	17.7	10.1	16.3	18.3	10.1
General suicide rate in the population (i.e. all suicides per 100000 population)		10.6	12.5	8.5	11.3	14.3	8.2

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, 2001 and 2011.

cultivators among main workers, i.e. those who worked in a particular occupation for the greater part of the reference year, as well as marginal workers, i.e. those who “had not worked for the major part of the reference period.” Consequently, even those for whom farming was a marginal activity would be included in this count of cultivators. Moreover, title to land is not a pre-requisite for considering a worker — main or marginal — to be a farmer or cultivator in the Census: anyone who is “engaged in cultivation” is considered as a cultivator here. Now, it is obvious that if we consider only cultivators among main workers as farmers, and use that number as the denominator, the farm suicide rate would be significantly higher. These estimates are given in Table 3 and they show, as one would expect, that the overall farm suicide rate in 2001 (15.8 per cent) and in 2011 (16.3 per cent) was around 50 per cent higher than the general suicide rate in the country in those years. And for male farmers the suicide rates, at 17.7 per cent and 18.3 per cent in 2001 and 2011, respectively, were significantly higher — by about 75 per cent — than for females.

The farm suicide rates for 2001 and 2011, we believe, understate the rates for other years in the period under consideration. This is because the number of farm suicides in the country, which saw a sharp jump in 1998, remained more or less stable up to 2001, and the next year (2002) once again witnessed an increase of around 9 per cent compared to the previous year. This increase was followed by a significant increase in 2004, after which, although there was a tapering-off in the number of suicides by farmers, suicides remained more or less steady and at a high level. But it is very likely that the base on which this increase occurred, that is, the number of farmers in the country, would have declined after 2001. In fact, going by the Census data for 1991 and 2001, there was a decline in the number of cultivators among main workers in the country over that entire decade: the number was around 111 million

in 1991 and 104 million in 2001 — a decline of around 6 per cent. And even if we consider all cultivators — that is, those among main as well as marginal workers — the number remained more or less static between 1991 and 2001: the figure was 125 million in 1991 and increased to just 127 million in 2001, an increase of less than 2 per cent over the whole decade. We find a strengthening of this trend over the years. Comparing the Census data for 2001 and 2011, there was a decline in the number of cultivators among main workers in the country during this decade by about 7 million — a decline of around 7.5 per cent. And even if we consider all cultivators — that is, those among main as well as marginal workers — the number declined by 8.7 million, or by 6.7 per cent.

In sum, farm suicide rates were not only much higher than general suicide rates in 2001 and 2011, but also recorded a marginal increase in 2011 over 2001.

There may be an objection to our comparison of farmer's suicide rates (as estimated above) with general suicide rates on the grounds that we have not attempted any standardisation for age distribution. It is generally observed that suicide rates are higher in the working age-groups than at the two extremes — the very young and the aged — in the age pyramid. Now, since the age distribution of farmers is likely to be different from that of the general population in that farmers would have a larger percentage of working age-group members among them, any comparison of suicide rates without age standardisation can be misleading: such a comparison would overstate the farm suicide rate relative to the general suicide rate. While this objection is certainly legitimate, we have not attempted age standardisation for the simple reason that we do not have the data needed to carry out such an exercise.

Data on the age distribution of farm suicides for the country as a whole are provided every year in the NCRB publication *Accidental Deaths and Suicides in India* (although similar data for the States are not provided in this publication). These data for 2001 and 2011 are summarised in Table 4 below. It is clear from the Table that the age distribution of farm suicides is in fact not very different from the corresponding distribution for the rest of the population, particularly among males. It is distressing to note that nearly 30 per cent of all farm suicides in 2001 and 2011 were by very young cultivators, in the age-group 15-29 years. Age standardisation of the suicide rate would require data on age distribution not only of farm suicides, but also of farmers. The latter data have not been published by the Census for 2011, even for the country as a whole.

There are other proximate factors that have a bearing on the comparison of farm suicide rates with general suicide rates. One such factor is the rural-urban distribution of the two groups. While farmers are overwhelmingly — almost by definition — rural residents, about 31 per cent of the general population reside in urban areas. This would mean that ideally, farm suicide rates should be compared

Table 4 Farmers' suicides in India, by sex and age-group, 2001 and 2011

Sex	Category	2001						2011					
		Number of suicides in different age-groups						Number of suicides in different age-groups					
		Up to 14 years	15-29 years	30-44 years	45-59 years	60+ years	Total	Up to 14 years	15-29 years	30-44 years	45-59 years	60+ years	Total
Male	Farmers	88 (0.6)	3830 (27.7)	5119 (37.0)	3414 (24.7)	1378 (10.0)	13829 (100.0)	24 (0.2)	2967 (24.6)	4509 (37.4)	3227 (26.7)	1344 (11.1)	12071 (100.0)
	Others	1410 (2.7)	16151 (30.8)	18384 (35.0)	11994 (22.9)	4546 (8.7)	52485 (100.0)	1550 (2.0)	23637 (31.2)	26891 (35.5)	17280 (22.8)	6410 (8.5)	75768 (100.0)
	All	1498 (2.3)	19981 (30.1)	23503 (35.4)	15408 (23.2)	5924 (8.9)	66314 (100.0)	1574 (1.8)	26604 (30.3)	31400 (35.7)	20507 (23.3)	7754 (8.8)	87839 (100.0)
Female	Farmers' suicides as per cent of all suicides	5.9	19.2	21.8	22.2	23.3	20.9	1.5	11.2	14.4	15.7	17.3	13.7
	Farmers	80 (3.1)	1028 (39.8)	889 (34.4)	451 (17.4)	138 (5.4)	2586 (100.0)	19 (1.0)	762 (39.0)	693 (35.4)	391 (20.0)	91 (4.7)	1956 (100.0)
	Others	1429 (3.6)	17901 (45.2)	12056 (30.4)	5720 (14.4)	2500 (6.3)	39606 (100.0)	1442 (3.1)	20648 (45.1)	14122 (30.8)	6638 (14.5)	2940 (6.4)	45790 (100.0)
	All	1509 (3.6)	18929 (44.9)	12945 (30.7)	6171 (14.6)	2638 (6.3)	42192 (100.0)	1461 (3.1)	21410 (44.8)	14815 (31.0)	7029 (14.7)	3031 (6.3)	47746 (100.0)
	Farmers' suicides as per cent of all suicides	5.3	5.4	6.9	7.3	5.2	6.1	1.3	3.6	4.7	5.6	3	4.1

Note: Data in this table are as reported in the NCRB reports, and are not adjusted for Chhattisgarh and Puducherry. This is because the table refers to age-wise distribution and estimating the same may not be very meaningful.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, 2001 and 2011.

with suicide rates in rural areas. Unfortunately, the NCRB data do not give the rural-urban distribution of suicides, and hence no such comparisons are possible. It is generally observed that rural suicide rates are lower than urban suicide rates, and hence the error introduced in comparing farm suicide rates with general suicide rates for the country as a whole would be of exactly the opposite nature than the error introduced by the absence of age standardisation in their comparison. This, coupled with the fact that farm suicide rates estimated for the years 2001 and 2011 are likely to be underestimates for reasons that we have elaborated above, tend to strengthen, in our view, the rather distressing claim that farm suicide rates are higher today than general suicide rates.

In sum, four significant facts emerge from the data on farm suicides in the country as a whole:

1. A large number of farmers — close to 16,500 per year — commit suicide in the country, a number that is unacceptably large.
2. The rate of suicide among farmers is likely to be high in comparison with the rate of suicide for the general population.
3. An overwhelming proportion — nearly 85 per cent — of farm suicides are by male farmers; and the number of farm suicides by young farmers, accounting for nearly 30 per cent of the total, is not small.
4. Trends in both the number of suicides and the rate of suicides are distressing. While the number seems to jump to a higher level in certain years, as in 1998, 2002, and 2004, in the subsequent years after these sharp jumps there is no reverting back to the older numbers; they in fact seem to stabilise at this higher level. Farm suicide rates registered a marginal increase in 2011 over 2001.

A disaggregated analysis of the data shows that there are certain regions in the country where these problems are much more acute than in others.

REGIONAL PATTERNS IN FARM SUICIDES IN INDIA

Farm Suicides in Different States

There is a high degree of variation in terms of the number, as well as rate, of farm suicides across different States in the country (see Tables 5 and 6). A similar variation also exists for general suicides. In fact there seems to be a strong relationship between general suicides and farm suicides in terms of these variations across States. The correlation coefficient between the general suicide rate and the farm suicide rate is high and positive (+0.82, $n=21$ in 2001; and +0.78, $n=21$ in 2011); and so is the correlation between the number of general suicides and farm suicides (+0.85, $n=21$ in 2001; and +0.78, $n=21$ in 2011). Thus it appears that those States which are suicide-prone in a general sense are also the ones that are prone to farm suicides: the general socio-economic context does mould the incidence and number of suicides in both the cases.

Table 5 *Number of suicides among the general population and farmers in selected States of India, 2011 and 2001*

State	No. of suicides, 2001		Farmers' suicides as per cent of all suicides		No. of suicides, 2011		Farmers' suicides as per cent of all suicides	
	Among farmers	Among the general population	Among farmers	Among the general population	Among farmers	Among the general population	Among farmers	Among the general population
1 Maharashtra	3536	14618	24.2	3337	15947	20.9		
2 Andhra Pradesh	1509	10522	14.3	2206	15077	14.6		
3 Karnataka	2505	11881	21.1	2100	12622	16.6		
4 Chhattisgarh	1452	4025	36.1	1567	8323	18.8		
5 Madhya Pradesh	1372	6860	20.0	1326	9259	14.3		
6 Kerala	1035	9572	10.8	830	8431	9.8		
7 West Bengal	1246	13690	9.1	807	16492	4.9		
8 Uttar Pradesh (including Uttarakhand)	709	3827	18.5	670	5160	13.0		
9 Tamil Nadu	985	11290	8.7	623	15963	3.9		
10 Gujarat	594	4791	12.4	578	6382	9.1		
11 Haryana	145	2007	7.2	384	3245	11.8		
12 Assam	167	2647	6.3	312	2726	11.4		
13 Rajasthan	505	3195	15.8	268	4348	6.2		
14 Bihar (including Jharkhand)	88	853	10.3	177	2007	8.8		
15 Odisha	256	4052	6.3	144	5241	2.7		
16 Punjab	45	648	6.9	98	966	10.1		
17 Puducherry	91	529	17.2	58	615	9.4		
18 Himachal Pradesh	22	307	7.2	46	443	10.4		
19 Tripura	41	854	4.8	20	703	2.8		
20 Jammu and Kashmir	15	153	9.8	14	287	4.9		
21 Goa	18	256	7.0	1	293	0.3		
India	16415	108506	15.2	15652	137210	11.4		
CV (%) (N = 21)	119.1	95.7	-	120.6	90.3	-		

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, 2001 and 2011.

There are also distinct differences between the distribution of farm suicides and of general suicides across different States. In terms of the distribution of the number of suicides, the extent of concentration in certain States (and regions) in the country seems to be higher for farm suicides than for general suicides. Thus, the top five States — Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh, and Madhya Pradesh — in terms of the number of farm suicides in 2001 and 2011 accounted for nearly two-thirds (63 per cent and 67 per cent, respectively) of the suicides in the country. The top five States in terms of the number of general suicides only partially overlap with this set: they are Maharashtra, Andhra Pradesh, Karnataka, West Bengal, and Tamil Nadu, accounting, in 2001 and 2011, for nearly 57 per cent and 55 per cent respectively of the total general suicides in the country.

Puducherry had a horrendously high rate of about 835 farm suicides for every 100,000 persons in the State in 2001. This registered a further increase to 866 in 2011. But the State is tiny, largely urban, and has only a small number of cultivators (10,900 in 2001 and 12,099 in 2011). The case of Goa is somewhat similar. Kerala, which comes next to Puducherry with a farm suicide rate of 143 and 177 (in 2001 and 2011), is a much larger State than Puducherry and Goa. Kerala was seventh in terms of the number of suicides in 2001 and sixth in 2011 among all States of the country, partly because the extent of non-farm employment in the State was very high and the number of cultivators relatively low. It is also worth noting that Kerala, Puducherry and Goa had very high general suicide rates; Puducherry had the highest suicide rate in the country — 54 and 49 in 2001 and 2011, respectively.

At the other extreme there were a number of States — situated mainly in the northern part of the country, in the Gangetic Plain in particular — such as Bihar, Uttar Pradesh, Rajasthan, Punjab, and Jammu and Kashmir, where the general suicide rates as well as farm suicide rates were very low.

The five States that accounted for the highest number of farm suicides also had high rates of farm suicides: Karnataka with a farm suicide rate of 36.4 in 2001 came next to Kerala, with Chhattisgarh (33.7) and Maharashtra (29.9) not far behind. The farm suicide rate in Andhra Pradesh (19.2) was also significantly higher than the all-India average. Over 2001-11, the suicide rate among farmers increased rapidly in Andhra Pradesh (from 19.2 to 34.0) and Chhattisgarh (from 33.7 to 39.1), while Maharashtra and Karnataka registered a decline of 4 to 5 percentage points. These States also had suicide rates that were generally high or above the all-India average. A distinguishing feature of these four States is that there has been a steady increase in the number of farm suicides over the period under consideration.

Given that there are such wide variations in the country in terms of the number and rate of farm suicides, it should be possible to identify regions where the problem is acute and worsening over time.

Table 6 Rates of suicides for the general population and farmers in selected States of India, 2001 and 2011

State	Suicide rate (per 100,000 persons)				
	2001			2011	
	In general population	Among farmers	In general population	Among farmers	
		With all cultivators considered	With only main cultivators considered	With all cultivators considered	With only main cultivators considered
1 Maharashtra	15.1	29.9	34.7	26.5	29.1
2 Andhra Pradesh	13.8	19.2	20.4	34.0	36.2
3 Karnataka	22.5	36.4	40.5	31.9	34.8
4 Chhattisgarh	19.4	33.7	41.6	39.1	51.6
5 Madhya Pradesh	11.4	12.4	15.4	13.5	16.1
6 Kerala	30.1	142.9	176.5	123.8	152.3
7 West Bengal	17.1	22.0	27.3	15.8	19.2
8 Uttar Pradesh (including Uttarakhand)	2.2	3.0	3.7	3.2	4.0
9 Tamil Nadu	18.1	19.3	20.8	14.7	16.2
10 Gujarat	9.5	10.2	12.6	10.6	12.2

11	Haryana	9.5	4.8	6.5	12.8	15.5	19.6
12	Assam	9.9	4.5	6.2	8.7	7.7	9.9
13	Rajasthan	5.7	3.8	5.3	6.3	2.0	2.7
14	Bihar (including Jharkhand)	0.8	0.7	0.9	1.5	1.6	2.4
15	Odisha	11.0	6.0	7.5	12.5	3.5	4.4
16	Punjab	2.7	2.2	2.4	3.5	5.1	5.4
17	Puducherry	54.3	834.9	865.8	49.3	479.4	538.9
18	Himachal Pradesh	5.1	1.1	2.0	6.5	2.2	5.0
19	Tripura	26.7	13.1	16.2	19.1	6.8	8.1
20	Jammu and Kashmir	1.5	0.9	1.6	2.3	1.1	2.5
21	Goa	19.0	35.7	60.7	20.1	3.2	4.2
	India	10.6	12.9	15.8	11.3	13.2	16.3
	CV (%) (N = 21)	84.4	306.4	287.5	74.9	260.1	253.1

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, 2001 and 2011.

Regional Patterns in Farm Suicides

We have tried to classify 21 States of the country into different groups on the basis of four criteria:

1. the number of farm suicides in the State;
2. farm suicide rate (for 2001 and 2011);
3. farm suicides as a per cent of all suicides in the State; and
4. the trend over 1997-2012 in the number of farm suicides.

Four groups of States have been identified on the basis of the number, rate, intensity, and trend of farm suicides. Two of these four groups consist of contiguous States (and hence can be seen as constituting distinct regions or zones), while the other two groups consist of non-contiguous States.

The four groups of States are:

Group I: Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh, and Madhya Pradesh. These States are contiguous and hence form a region or zone.

Group II: Kerala, Tamil Nadu, Goa, Puducherry, West Bengal, and Tripura.

Group III: Assam, Gujarat, Haryana, and Odisha.

Group IV: Bihar (including Jharkhand), Uttar Pradesh (including Uttarakhand), Himachal Pradesh, Punjab, Jammu and Kashmir, and Rajasthan. This group constitutes a region or zone consisting of eight States in north India, largely concentrated in the Gangetic plain.

Data on the number, rate, intensity, and trend of farm suicides in these four groups of States are summarised in Table 7 and Table 8. Of the four groups, Group IV is where farm suicides were not a major problem, at least during the period under consideration here. The number of farm suicides, around 1,400 per year on average in 2001 and 1,300 per year in 2011, seems to be not very alarming, at least in comparison with some other parts of the country, and considering that this is a very large region in terms of area and population. The rate of farm suicides, 2.5 or 2.6, was much lower than the all-India average. This was also the region where the general suicide rate was low. The number of farm suicides, after showing an initial spurt in the years 1998 and 1999, showed a declining tendency subsequently. All in all, in this zone the problem of farm suicides was not acute.

The number of farm suicides per year in Group III, around 1,100 to 1,400, was also not very high. The rate of farm suicides increased from 7 per cent to 9 per cent, but was lower than the all-India average and higher than the rate in the Group IV States. The general suicide rates in the Group III States may be termed moderate — around the same as the all-India rate — and the farm suicide rate was *lower* than the general suicide rate. The intensity of farm suicides — that is, farm suicides as a percentage of all suicides — in these States was also not very high. In terms of the trend in the

Table 7 *Number of suicides among the general population and farmers in different groups of States, 2011 and 2001*

Groups of States	No. of suicides, 2001		Farmers' suicides as per cent of all suicides, 2001	No. of suicides, 2011		Farmers' suicides as per cent of all suicides, 2011
	Among farmers	Among all population		Among farmers	Among all population	
1 Group I (Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh, Madhya Pradesh)	10374 (63.2)	47906 (44.2)	21.7	10536 (67.3)	61228 (44.6)	17.2
2 Group II (Kerala, Tamil Nadu, Goa, Puducherry, West Bengal, Tripura)	3416 (20.8)	36191 (33.4)	9.4	2339 (14.9)	42497 (31.0)	5.5
3 Group III (Assam, Gujarat, Haryana, Odisha)	1162 (7.1)	13497 (12.4)	8.6	1418 (9.1)	17594 (12.8)	8.1
4 Group IV (Bihar including Jharkhand, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand)	1384 (8.4)	8983 (8.3)	15.4	1273 (8.1)	13211 (9.6)	9.6
All-India	16415 (100)	108506 (100)	15.2	15652 (100)	137210 (100)	11.4

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, 2001 and 2011.

Table 8 *Rate of suicides among the general population and farmers in different groups of States, 2011 and 2001*

Groups of States	Suicide rate (per 100,000 members)				
	2001			2011	
	In general population	Among farmers With all cultivators considered	Among farmers With only main cultivators considered	In general population	Among farmers With all cultivators considered
1 Group I (Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh, Madhya Pradesh)	15.6	24.8	28.7	17.2	26.7
2 Group II (Kerala, Tamil Nadu, Goa, Puducherry, West Bengal, Tripura)	20.1	28.8	33.6	20.9	22.5
3 Group III (Assam, Gujarat, Haryana, Odisha)	10.0	6.9	8.9	11.1	8.8
4 Group IV (Bihar, Jharkhand, Himachal Pradesh, Jammu and Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand)	2.4	2.6	3.3	2.9	2.5
All India	10.6	12.9	15.8	11.3	13.2
					16.3

Notes: As in Table 1.
Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, 2001 and 2011.

number of farm suicides, the years 1998 and 2002 saw sharp increases; after 2002 the number seems to have remained more or less at the same level as in 2002. Thus, in the States in Group III the problem of farm suicides was not acute, although there seemed to be some incipient, disquieting tendencies.

The picture was very disturbing in the Group I and II States, particularly in the former. Group II consists of six States: two large (Kerala and Tamil Nadu) and two small (Goa and Pondicherry); and two in the eastern part of the country of which one is large (West Bengal) and one small (Tripura). The farm suicide rate for this group of States in 2001, at around 29 per cent, was the highest among all groups; but this was also partly because of the very high rate in Kerala. If we leave out Kerala from this group, the farm suicide rate for the rest of the States in Group II in 2001 worked out to around 21 per cent, which was still quite high — almost twice as high as the all-India average — but slightly lower than the rate for the Group I States. It is noteworthy that the general suicide rates in Group II States were very high, nearly twice as high as the corresponding all-India rate. Consequently, the intensity of farm suicides — that is, farm suicides as a per cent of all suicides — in this group was quite low, accounting for around a tenth of all suicides. The phenomenon of high farm suicides in Group II was also partly due to the fact that these States were generally suicide-prone. Moreover, while the number of farm suicides in this group was substantial, around 3,416 per year, the trend was a declining one. In 2011, the number of farm suicides came down to 2,339, bringing down the farm suicide rate from 29 per cent in 2001 to 23 per cent in 2011. If we leave out Kerala from this group, the farm suicide rate in 2011 was about 15.5 per cent. In sum, while the vulnerability of these States to farm suicides is disquieting, the problem, at least for the present, seems to be under control.

The problem of farm suicides seems to be the most acute in the Group I States. This group consists of five contiguous States in the heartland of India: Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh, and Madhya Pradesh. We should clarify here that Madhya Pradesh does not quite belong in this group in that the problem of farm suicides was not as acute here as in the other four States in the group. While the number of farm suicides as well as the intensity was quite high in Madhya Pradesh, the farm suicide rate here was not very high; it was around the same as the all-India average. We have been forced to bring this State into this group for some practical reasons. The State of Chhattisgarh was formed in the year 2001 from a bifurcation of the erstwhile State of Madhya Pradesh, and hence we have data separately for the two new States (Chhattisgarh and the present Madhya Pradesh) only from 2001 onwards; data for the period 1997-2000 are available only for the State of Madhya Pradesh with its old jurisdiction. Given this, we had to include the present Madhya Pradesh in Group I to observe the trends in suicides from 1997 onwards.

The number of farm suicides in this region was very high: over the 16-year period between 1997 and 2012, it witnessed a total number of 165,640 farm suicides, an

Table 9 *Number of farmers' suicides and all suicides in different groups of States, 1997-2012*

Year	Group I States			Group II States			Group III States			Group IV States		
	Farmers' suicides	All suicides	Farmers' suicides as per cent of all suicides	Farmers' suicides	All suicides	Farmers' suicides as per cent of all suicides	Farmers' suicides	All suicides	Farmers' suicides as per cent of all suicides	Farmers' suicides	All suicides	Farmers' suicides as % of all suicides
1 1997	7236 (100)	38910 (100)	18.6	3746 (100)	33672 (100)	11.1	1084 (100)	11789 (100)	9.2	1458 (100)	9909 (100)	14.7
2 1998	8383 (116)	43453 (112)	19.3	4434 (118)	36003 (107)	12.3	1416 (131)	12443 (106)	11.4	1695 (116)	11217 (113)	15.1
3 1999	9430 (130)	46170 (119)	20.4	3710 (99)	36943 (110)	10.0	1052 (97)	13470 (114)	7.8	1825 (125)	12424 (125)	14.7
4 2000	9837 (136)	47157 (121)	20.9	3813 (102)	35905 (107)	10.6	1224 (113)	14034 (119)	8.7	1649 (113)	9843 (99)	16.8
5 2001	10374 (143)	47906 (123)	21.7	3416 (91)	36191 (107)	10.6	1162 (107)	13497 (114)	8.6	1384 (95)	8983 (91)	15.4
6 2002	10509 (145)	49341 (127)	21.3	4646 (124)	35418 (105)	13.1	1376 (127)	13742 (117)	10.0	1328 (91)	9876 (100)	13.4
7 2003	10825 (150)	49211 (126)	22.0	3716 (99)	36316 (108)	10.2	1340 (124)	13809 (117)	9.7	1199 (82)	9741 (98)	12.3
8 2004	11809 (163)	51482 (132)	22.9	3492 (93)	36939 (110)	9.5	1393 (129)	13912 (118)	10.0	1438 (99)	9495 (96)	15.1
9 2005	10959 (151)	49754 (128)	22.0	3525 (94)	37870 (112)	9.3	1308 (121)	13865 (118)	9.4	1239 (85)	10492 (106)	11.8
10 2006	11638 (161)	52043 (134)	22.4	2926 (78)	38698 (115)	7.6	1282 (118)	14447 (123)	8.9	1147 (79)	10653 (108)	10.8

11	2007	11026 (152)	53538 (138)	20.6	3015 (80)	39125 (116)	7.7	1014 (94)	15383 (130)	6.6	1467 (101)	12349 (9125)	11.9
12	2008	10796 (149)	53524 (138)	20.2	2164 (58)	39392 (117)	5.5	1133 (105)	16714 (142)	6.8	1967 (135)	13180 (133)	14.9
13	2009	10765 (149)	55991 (144)	19.2	3213 (86)	39361 (117)	8.2	1313 (121)	15990 (136)	8.2	1942 (133)	13456 (136)	14.4
14	2010	10614 (147)	59993 (154)	17.7	2506 (67)	42739 (127)	5.9	1351 (125)	16350 (139)	8.3	1404 (96)	13008 (131)	10.8
15	2011	10536 (146)	61228 (157)	17.2	2339 (62)	42497 (126)	5.5	1418 (131)	17594 (149)	8.1	1273 (87)	13211 (133)	9.6
16	2012	10903 (151)	60026 (154)	18.2	2622 (70)	42889 (127)	6.1	1330 (123)	18228 (155)	7.3	1330 (91)	13717 (138)	9.7
Total for 1997-2012		165640	819727	20.3	53284	609958	8.9	20196	235267	8.7	23745	181554	13.2
Annual compound growth rate (ACGR) (per cent) 1997-2012		2.6	2.7	-	-2.2	1.5	-	1.3	2.8	-	-0.6	2.1	-

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, various issues.

average of more than 10,000 per year. The farm suicide rate here was also very high, around 25 per cent in 2001 and 28 per cent in 2011, nearly twice the all-India average. While the general suicide rate in the region, around 16 or 17 per cent, was significantly higher than the all-India average, it is noteworthy that it was lower than the corresponding rate for Group II States. Consequently, the gap between the general suicide rate and farm suicide rate here was much higher: the latter was nearly 60 per cent higher than the former (even if we adopt the lower estimate for the farm suicide rate). The net result of this was that what we have termed the intensity of farm suicides — that is, farm suicides as a per cent of total suicides — was high in the Group I States. Every fifth or sixth suicide in this region was a farm suicide. What is also particularly distressing about the situation in this region is that unlike in the Group II States, the number of farm suicides here has seen a consistent increase over the period under consideration. The only year in which there was a break in the trend was 2005, when the number of farm suicides saw a substantial decline. However, the very next year, 2006, witnessed a reversal, with an increase of 679, which, however, registered a gradual decline until 2011. In 2012, the number of farm suicides increased by 367. Considering the period 1997-2012 as whole, farm suicides in the Group I States increased at an annual compound growth rate (ACGR) of 2.6 per cent. It is noteworthy that there was no year after 2001 when the number of farm suicides in this region was less than 10,000.

There are three corollaries to the observations made above regarding the large and increasing number of farm suicides in Group I. The first is that there was a decline in the absolute number of cultivators in this region over 2001 and 2011, to the tune of 2.4 million, of which female cultivators account for 2 million. The farm suicide rate increased from 24.8 per cent in 2001 to 26.7 per cent in 2011 in this region. This is the only region in the country where the suicide rate was high and increased between the Censuses.

Secondly, farm suicides in the country were concentrated in this region and such concentration increased over the reference period. In 1997, the region accounted for nearly half of the total farm suicides in the country; in 2001, it accounted for 63 per cent of all farm suicides; and by 2012, 67 per cent of the total farm suicides were reported from these States. Considering the period 1997-2012 as a whole, every 6 out of 10 farm suicides in the country occurred in this region (see Table 10). Going by the Census of India data for 2001 and 2011, this region accounted for nearly 30 per cent of the population and 33 per cent of the total number of cultivators in the country as a whole.

Thirdly, the fact that farm suicide rates were much higher than the general suicide rates and farm suicides accounted for a very large proportion of total suicides in this region may also imply that there was a disjunction between farm suicides and general suicides here, that the high farm suicides did not necessarily reflect a situation of proneness to suicides in a general sense. The contrast between this region and Group II States in this respect is worth noting.

Table 10 *Percentage shares of different groups of States in total suicides among farmers and the general population in India, 1997-2012*

Year	Percentage share of groups of States in total farmers' suicides in the country				Percentage share of groups of States in total general suicides in the country				
	Group I	Group II	Group III	Group IV	Group I	Group II	Group III	Group IV	
1	1997	53.1	27.5	8.0	10.7	40.6	35.1	12.3	10.3
2	1998	52.3	27.7	8.8	10.6	41.5	34.4	11.9	10.7
3	1999	58.6	23.1	6.5	11.3	41.7	33.4	12.2	11.2
4	2000	59.2	23.0	7.4	9.9	43.4	33.1	12.9	9.1
5	2001	63.2	20.8	7.1	8.4	44.2	33.4	12.4	8.3
6	2002	58.5	25.9	7.7	7.4	44.7	32.1	12.4	8.9
7	2003	63.1	21.6	7.8	7.0	44.4	32.8	12.5	8.8
8	2004	64.7	19.1	7.6	7.9	45.3	32.5	12.2	8.4
9	2005	64	20.6	7.6	7.2	43.7	33.2	12.2	9.2
10	2006	68.2	17.2	7.5	6.7	44.1	32.8	12.2	9.0
11	2007	66.3	18.1	6.1	8.8	43.7	31.9	12.5	10.1
12	2008	66.7	13.4	7.0	12.1	42.8	31.5	13.4	10.5
13	2009	62.0	18.5	7.6	11.2	44.0	31.0	12.6	10.6
14	2010	66.5	15.7	8.5	8.8	44.6	31.8	12.1	9.7
15	2011	67.3	14.9	9.1	8.1	44.6	31.0	12.8	9.6
16	2012	67.0	16.1	8.2	8.2	44.0	31.5	13.4	10.1
For the period 1997-2012		62.5	20.2	7.6	9.0	43.6	32.6	12.5	9.7

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, various issues.

Table 11 *Number of suicides among male farmers in Group I States, 1997-2012*

	Year	Number of suicides among male farmers	Number of suicides among males in general population	Male farmers' suicides as per cent of male suicides	Share of Group I States in total male farmers' suicides in the country
1	1997	5756 (100)	22872 (100)	25.2	51.3
2	1998	6684 (116)	25893 (113)	25.8	51.5
3	1999	7711 (134)	27536 (120)	28.0	58.1
4	2000	7869 (137)	28902 (126)	27.2	58.3
5	2001	8705 (151)	29764 (130)	29.2	62.9
6	2002	8887 (154)	31306 (137)	28.4	58.1
7	2003	9111 (158)	31828 (139)	28.6	62
8	2004	10283 (179)	33623 (147)	30.6	64.6
9	2005	9573 (166)	32331 (141)	29.6	63.9
10	2006	9951 (173)	33984 (149)	29.3	67.9
11	2007	9577 (166)	35487 (155)	27.0	66.0
12	2008	9422 (164)	35439 (155)	26.6	66.6
13	2009	9160 (159)	36935 (161)	24.8	61.3
14	2010	8956 (156)	39844 (174)	22.5	65.9
15	2011	8970 (156)	40475 (177)	22.2	67.2
16	2012	9278 (161)	40352 (176)	23.0	66.5
Total for the period 1997-2012		139893	526571	26.6	62.0
ACGR (%) 1997-2012		3.03	3.61	-	-

Notes: As in Table 1.

Source: NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, various issues.

We noted earlier that farm suicides were overwhelmingly concentrated among males. This phenomenon was observed in all four groups of States. In this respect, the picture in the Group I States was starker than elsewhere. Considering the period 1997-2012 as a whole, the number of male farm suicides in this region increased at an ACGR of 3.03 per cent (see Table 11); the corresponding figure for female farm suicides was much lower, at 0.59 per cent per annum. Almost every fourth male suicide in this region was a farm suicide.

Within Group I, it is in the State of Maharashtra that the problem of farm suicides is particularly acute and distressing. Over the 16 years between 1997 and 2012, the number of farm suicides in this State more than doubled, from 1,917 in 1997 to 4,453 in 2006. The number declined thereafter, but remained at the high level of 3,786 in 2012 (Table 12). The ACGR in the State was 4.3 per cent, a very high figure. Considering the period 1997-2012 as a whole, every fifth farm suicide committed in the country during this period occurred in Maharashtra. In 2006, every fourth farm suicide in the country occurred here. While this figure declined after 2007, it increased again from 2010, and by 2012, once again accounted for nearly every fourth farm suicide in the country. With regard to male farm suicides in Maharashtra, the number increased between 1997 and 2012 at an ACGR that was far above that for all other States, 5 per cent.

Within Group I States, the data show that the problem of farmers' suicides was becoming more acute in Andhra Pradesh, where the number of farm suicides increased from 1,097 in 1997 to 2,572 in 2012. Andhra Pradesh accounted for 8 per cent of all farm suicides in the country in 1997; this percentage increased rapidly and was 16 by 2012.

From all available evidence — particularly from an alert, socially conscious print media — there are certain pockets within each State in Group I where farm suicides are concentrated, and where the problem is likely to be particularly acute. The Vidarbha region in Maharashtra, the Deccan and Hyderabad-Karnataka regions in Karnataka, and the Telangana and Rayalaseema regions in Andhra Pradesh are the areas — along with Wayanad in Kerala — that have received a great deal of attention and coverage by the press in this regard. Consequently, the governments in these States have been forced to acknowledge the problem and forced to take steps to mitigate the crisis, however inadequate these measures are. Unfortunately, Chhattisgarh, where the problem is as acute as elsewhere in the Group I States — with the exception of Maharashtra — has not received similar attention, either from the press or from the State government.

These sub-regions of these States — namely, Vidarbha, Deccan and Hyderabad Karnataka, Telangana and Rayalaseema, and Chhattisgarh — constitute a contiguous region in the heartland of India. Unfortunately, we do not have access to district-level data on suicides, which would have helped us to carry out a detailed analysis for this region on the lines of our analysis for different groups of States. But it would

Table 12 Farmers' suicides in Maharashtra, 1997-2012

Year	Maharashtra				Other States in Group I				
	Number of farmers' suicides in the State	Farmers' suicides as a per cent of all suicides in the State	Farmers' suicides in the country	Number of male farmers' suicides	Number of farmers' suicides in the all States	Farmers' suicides as a per cent of all suicides in the States	Farmers' suicides as a per cent of the country	Number of male farmers' suicides	
1	1997	1917 (100)	15.2	14.1	1600 (100)	5319 (100)	20.2	39.0	4156
2	1998	2409 (126)	17.6	15.0	1938 (121)	5974 (112)	20.1	37.3	4746
3	1999	2423 (126)	17.8	15.1	2050 (128)	7007 (132)	21.5	43.6	5661
4	2000	3022 (158)	21.6	18.2	2492 (156)	6815 (128)	20.6	41.0	5377
5	2001	3536 (184)	24.2	21.5	2945 (184)	6838 (129)	20.5	41.7	5760
6	2002	3695 (193)	25.4	20.6	3155 (197)	6814 (128)	19.6	37.9	5732
7	2003	3836 (200)	26	22.3	3381 (211)	6989 (131)	20.3	40.7	5730
8	2004	4147 (216)	28.2	22.7	3799 (237)	7662 (144)	20.8	42.0	6484
9	2005	3926 (205)	27.2	22.9	3638 (227)	7033 (132)	19.9	41.1	5935
10	2006	4453 (232)	28.7	26.1	4111 (457)	7185 (135)	19.7	42.1	5840
11	2007	4238 (221)	27.9	25.5	3968 (248)	6788 (128)	17.7	40.8	5609
12	2008	3802 (198)	26.5	23.5	3573 (223)	6994 (131)	17.9	43.2	5849
13	2009	2872 (150)	20.1	16.5	2692 (168)	7893 (148)	18.9	45.4	6468
14	2010	3141 (164)	19.7	19.7	2947 (184)	7473 (140)	17.0	46.8	6009
15	2011	3337 (174)	20.9	21.3	3093 (193)	7199 (135)	15.9	46.0	5877
16	2012	3786 (197)	23.5	23.3	3483 (218)	7117 (134)	16.2	43.7	5795
Total for 1997-2012		54540	23.2	20.5	48865	111100	19.2	42.0	91028
ACGR (%) 1997-2012		4.3			5.0	1.8			2.1

Notes: As in Table 1.

Source NCRB, *Accidental Deaths and Suicides in India*, various issues; Census of India, *Population Census Reports*, various issues.

be a safe guess that it is in this semi-arid, poor, backward region in the heartland of India that the problem of farm suicides — in terms of numbers, rate, intensity, and trends — is most acute and distressing. We would also hazard the guess that being a very backward area, the general suicide rates here are not likely to be high, since it is generally observed that there is an inverse relation between socio-economic development status and general suicide rates. In that sense this is a region where the problem of suicides has been largely a problem of farm suicides; and in this sense, this region is likely to differ from States in Group II, such as Kerala and Tamil Nadu.

FACTORS UNDERLYING FARMERS' SUICIDES

Mono-causal explanations for farmers' suicides — or for any suicide — are inadequate. Further, suicides cannot be explained purely in terms of behavioural patterns and personal, psychological motivations; they have also to be seen as social phenomena whose underlying social causes have to be unearthed. It is worth emphasising this simple point because there have been attempts of late to delink farm suicides from the agrarian crisis (Deshpande, 2002). The claim often made is that many of the farm suicides are not attributable to the agrarian crisis, and occur because of factors such as unsustainable life-styles of farmers, alcoholism, large expenses on marriages, incurable diseases, and so on. These types of explanations, we believe, are seriously flawed, since they do not view suicides as a social phenomenon.

The National Crime Records Bureau, in its annual publication *Accidental Deaths and Suicides in India*, provides a distribution of suicides by as many as 26 “causes”: bankruptcy or sudden change in economic status; suspected/illicit relations; cancellation/non-settlement of marriage; not having children (barrenness/impotency); illness (AIDS/STD); illness (cancer); illness (paralysis); illness (insanity); illness (other prolonged); death of a dear person; dowry dispute; divorce; drug abuse/addiction; failure in examination; fall in social reputation; family problems; ideological causes/hero worship; illegitimate pregnancy; love affairs; physical abuse (rape, incest, etc.); poverty; professional/career problem; property dispute; unemployment; causes not known; and other causes. This distribution is available only for all general suicides in the population; that is, there is no cross-classification of suicides by “causes” and “profile” of suicide victims. However, even if such data were available for, say, farmers, we believe they would not be very useful in identifying the socio-economic factors underlying farmers' suicides, for the following reasons.

First of all, such a classification would assign a unique “cause” to every suicide, and, as we have been at pains to emphasise, suicide is too complex a phenomenon to be explained in mono-causal terms.

Secondly, the quality of such data would be suspect for the simple reason that they are gathered by police officials through enquiries with relatives, friends, and neighbours, or through letters and records left by the suicide victims.

The reason why we have gone into this rather elaborate discussion above on the so-called “causes” of suicides as enumerated in the official data is that the frequent attempts to use these “causes” as explanatory factors underlying farm suicides shift the burden of explanation from the social context to the individual suicide victim, and hence, in effect, end up blaming the victim. In addition, they are hardly helpful in devising appropriate policy interventions to deal with the distressing phenomenon of suicide.

A detailed, rigorous study of the complex set of socio-economic factors underlying farm suicides in the country is a task we are not equipped to attempt. Instead, we list some of the possible factors involved. These should be seen as preliminary, initial hypotheses, needing considerable further empirical work to support them.

While the underlying socio-economic factors are extremely complex, we would claim that it would take a strong sense of denial not to see the present acute agrarian crisis as a central factor underlying this epidemic of farm suicides. This crisis has existed from around the mid-to-late 1990s, and this is the period, as we have seen above, when farm suicides were high and increasing, particularly in the Group I States. But the farm crisis in the country has been acute, persistent and widespread — with almost every State and region experiencing it in one way or another. Therefore, there can be a legitimate query as to why farm suicides are largely confined to a part of the country. Why is it that the problem is most acute in the Group I States — and particularly in the contiguous, semi-arid zone in the southern and central parts of India, consisting of Vidarbha, Deccan and Hyderabad Karnataka, Telangana and Rayalaseema, and Chhattisgarh within those States?

A combination of a set of factors in this semi-arid region in the heartland of India has resulted in this acute crisis. Three such broad issues are relevant here:

1. pre-existing conditions of very high vulnerability in the region;
2. the present acute agrarian crisis; and
3. an absence of alternative livelihood opportunities, particularly for the poor, during the period of agrarian crisis.

As for the vulnerability of the region, it is a backward region with a low level of development of productive forces in agriculture and industry. The region is highly water-stressed with a low degree of irrigation and with scanty, uncertain rainfall. As with all such semi-arid regions, the soil quality here is poor and worsening, and varies a great deal across space. It is also a region with a diversified cropping pattern, with coarse cereals accounting for a large proportion of the cropped area — but this is a type of diversification that is dictated by poor agrarian conditions rather than by agricultural modernisation. The cash crops in the region, such as cotton, are largely cultivated under poor agronomic conditions with low levels of irrigation. This type of diversity — dictated by backwardness and adversity — hardly makes for any stability; if anything, it adds to instability and vulnerability.

It was in a context of high levels of pre-existing vulnerability that the agrarian crisis occurred; and the implications, in such a situation, can be very severe. This agrarian crisis, we believe, was precipitated by the neoliberal state policies in operation since the beginning of the 1990s. There were a number of dimensions to it, each reinforcing the other in engendering this crisis. With the decline in capital expenditure by the state as part of its stabilisation measures, investments in agriculture — and in irrigation, soil conservation, and so on — came down, with serious consequences in a region where soil and irrigation problems were already acute. Banking sector reforms meant that organised credit to agriculture practically dried up. With the withdrawal of agricultural subsidies, costs of production, particularly of cash crops such as cotton, shot up. On top of all this, external trade liberalisation, in the form of withdrawal of farm quotas and tariffs, provided the ground for a crash in farm prices, particularly in cash crops like cotton. The extension and price-support services provided by the state were drastically curtailed. All these had serious consequences for a fragile agrarian economy dependent on state support.

Like nature, a socio-economic context abhors a vacuum. The space vacated by the state was taken up by private agents, particularly in areas like credit, supply of seeds and fertilizers, extension services (like advice and help on crops to be grown, digging of bore wells, etc.), marketing of crops, etc. These agents, often combining all these multiple roles, were mostly from the urban centres in the region and, with next to no regulation of their operations, their relationship with the farmers was essentially a predatory one, of exploiting the latter's vulnerability during the period of crisis.

All this resulted in loss of livelihoods for a large section of farmers. What added to the crisis was the almost total absence of alternate livelihood opportunities that they could have fallen back on. The region, as we noted above, is very poorly developed even in terms of sustained, decent non-agricultural opportunities. We may just note here that even though the agrarian crisis in certain other parts of the country is as deep and sustained as in this region, the epidemic of farm suicides is not observed in them partly because of the availability of such non-farm livelihood options during times of crisis. Tamil Nadu perhaps is a case in point. Even though Tamil Nadu has witnessed a severe agrarian crisis from around the late 1990s, farm suicides in the State, while being not insubstantial in number, have not been persistently increasing. In fact, between 1997 and 2012 the number nearly halved, from 932 to 499. Perhaps the major reason underlying this is that Tamil Nadu has the best rural-urban linkages in the country. It is not only the most urbanised State in India, it also has the best spatial spread of a large number of small, medium and big towns. This, along with a good road network and a good public transport system, has resulted in a situation where alternative non-farm livelihood opportunities in nearby towns are available to the poor during periods of agrarian crisis. And this, we believe, has provided a buffer against large-scale suicide by farmers in the State.

This account of socio-economic factors underlying farm suicides is largely based on our observations during field visits in parts of Andhra Pradesh in 2004. We would like to reiterate that considerable further empirical work needs to be undertaken to test it or to flesh it out in detail. But if the account given above is broadly along correct lines, it has a few important implications.

Often, there are attempts to isolate a single factor — say, indebtedness — to claim either that it is the major cause underlying farm suicides, or that, in the absence of any strong correlation between spatial incidence in farm suicides and indebtedness, it is not a causative factor at all (Vaidyanathan, 2006). Such attempts, we believe, are simplistic and miss the basic point that mono-causal explanations of suicides, including farm suicides, are totally inadequate.

Secondly, so long as those conditions which result in high levels of vulnerability exist and are not addressed, as in the farm suicide zone in the heartland of the country, any dip in the number of farm suicides in a year or two cannot be seen as a decisive break from its increasing trend. Any major external impulse —like say, a price crash in one year, a failure of rainfall in another —may again precipitate a crisis.

Thirdly, just as mono-causal explanations of farm suicides are totally inadequate, so would be sporadic, disjointed, single-point policy interventions to deal with the problem. We do not want to dismiss the role of “package measures” —such as a combination of debt relief, remunerative prices, and employment guarantee measures —which, by providing a degree of relief and hope to farmers, can bring down the number of suicides at least in the short term; this seems to have happened in Kerala in the last year or so. But these measures by themselves are not a substitute for a comprehensive policy intervention to deal with both pre-existing vulnerability on the one hand, and acute agrarian crisis on the other. This, we believe, calls for a complete reorientation of agrarian policies. In the immediate context this would mean giving up all the neoliberal measures which have precipitated this crisis; but that does not mean reverting back to earlier agrarian policies which resulted only in sporadic, halting modernisation of the agricultural sector. Basic institutional transformation in the sector as a pre-condition for its comprehensive modernisation has to be recognised.

Such basic changes in state policies rarely come without pressures created by mass movements of the deprived sections of the population. India has had a long tradition of farmer’s movements, with large-scale farmers’ mobilisations taking place even as late as the 1980s. But today such movements seem to have dried up: large numbers of farmers seem to be taking their lives rather than taking to the streets. And suicide is a cry of desperation rather than a form of social protest. It is this aspect of the situation that is almost as disturbing as the epidemic of farm suicides that we witness today. The reasons for this are not known; and understanding them is as important as understanding the reasons for the epidemic of farm suicides in the country.

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