#### FARMERS' SUICIDES IN INDIA: MAGNITUDES, TRENDS AND SPATIAL PATTERNS

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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 picked up and reported by an alert press around the late 1990s. The public concern that these reports led to forced some of the state governments like Karnataka, Andhra Pradesh and Maharashtra to set up enquiry commissions to go into this phenomenon in the respective states. The data bases that either the press or these enquiry commissions depended on were somewhat uncoordinated and sporadic: they were either impressionistic, or based on data collated by activist sources like the Kisan Sabhas, or small scale surveys conducted by the enquiry commissions. While the extremely useful role that the press and the enquiry commissions played in informing the public about this distressing situation has to be recognized, these efforts could always be dismissed - and often were dismissed - as the products of fevered imagination of some journalists and social activists. So, there was a need to probe the issue by utilizing a data source which would provide a comprehensive, nation-wide picture. This paper is a modest attempt to fill that gap. Its basic objective is to put together, and carry out a preliminary analysis on, 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 annual publication, "Accidental Deaths and Suicides in India", brought out by the National Crime Records Bureau (NCRB), Ministry of Home Affairs, Government of India. The data compiled from the police records furnished to the NCRB 'by the Chiefs of Police of all States/UTs and Mega Cities', are being put out in these annual publications from 1967 onwards. While the earlier reports provided basic data on the number of suicides in different states in the country, these reports have become more detailed of late, providing information on aspects like distribution of suicidal deaths by sex and age distribution, by causes of suicide, by marital status, by educational level, by means adopted – and most importantly for our purpose, by profession. These number

of professional categories by which suicide victims are identified and distributed has increased over time and at present 12 such categories, viz., house wife, service (government), service (private), public sector undertaking, student, unemployed, selfemployed (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 the farmers – was added for the first time in 1995, and the latest year for which these data are available is 2006. For 1995, such data were not available for a major state like Tamil Nadu, which started reporting only in 1996; moreover a number of large and small states like Rajasthan, Jammu & Kashmir, Arunachal Pradesh, Mizoram, Sikkim, Andaman & Nicobar Islands, Pondicherry etc reported 'nil' farmers' suicides in this year. Even in the year 1996 the data set appears to be incomplete since Jammu & Kashmir, Pondicherry, Mizoram, Arunachal Pradesh, Manipur still kept reporting 'nil' farmers' suicides. We have a more or less complete, consistent set of data only from the year 1997 onwards. So the analysis in this paper is largely restricted to the period 1997-2006. 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 given the picture for the period 1995-2006.

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

- 1) The magnitude and trends in farmers' suicides in India over this period, 1997-2006; and
- 2) The regional patterns, if any, in the incidence and trends in these suicides.

As for the factors underlying farmers' suicides – like issues underlying any suicide – they would be extremely complex, involving socio-economic, cultural and psychological factors. While we do not propose to deal with this issue in any detail in this paper, we would like to put forward some preliminary observations on this matter. While recognizing that any mono-causal explanation of this complex phenomenon would be totally inadequate, we would like to point out a central role played by the present acute agrarian crisis in the country - and the state policies underlying this crisis - in this distressing phenomenon. Since this issue demands substantial amount of further work, the paper in this sense, is largely descriptive, rather than analytical. We should also note here that there is a substantial amount of literature on the recent spate of farmers' suicides in country and we have not done any

survey of this literature. The purpose of this paper, we reiterate, is a modest one: of collating and presenting the secondary set of data available on this distressing phenomenon, and to present some patterns that we have observed in it.

The rest of the paper is divided into three broad sections. Section I below deals with the issue of magnitude and trends in farmers' suicides in the country as a whole for the period 1996-2006; the second section deals with the regional patterns that we have identified in the country in terms of incidence and trends in farmers' suicide; and the third section briefly enumerates some of the factors that may be underlying these magnitudes, trends and spatial patterns.

#### **SECTION I**

#### MAGNITUDE AND TRENDS IN FARMERS' SUICIDES IN INDIA, 1997-2006

#### Numbers and Trends in Farm Suicides in India

In the ten year period between 1997 and 2006 as many as 166,304 farmers committed suicide in India. (See Table 1 below). If we consider the 12 year period from 1995 to 2006 the figure is close to 200,000: the exact figure (190,753) would be an underestimation since a couple of major states like 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 these two years. Thus, going by the official data, on average nearly 16,000 farmers committed suicide every year over the last decade or so. It is also clear from the table that every seventh suicide in the country was a farm suicide.

We would 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 National Crime Records Bureau, as we have noted above, are put together from the police records from different states. Our experience during our field visits in Andhra Pradesh as a member of the Farmers' Commission set 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. The title to land was taken as the criterion for identifying the farmer and 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 could be denied the status of a farmer; so also a farmer if the title was in his father's name.

	Farmer	rs' Suicides	A	All Suicides
Year	Number	As a percent of all suicides	Number	Suicide Rate (per 100,000 population)
1997	13622 (100)	14.2	95829 (100)	10.0
1998	16015 (118)	15.3	104713 (109)	10.8
1999	16082 (1118)	14.5	110587 (115)	11.2
2000	16603 (122)	15.3	108593 (113)	10.6
2001	16415 (121)	15.1	108506 (113)	10.6
2002	17971 (132)	16.3	110417 (115)	10.5
2003	17164 (126)	15.5	110851 (116)	10.4
2004	18241 (134)	16.0	113697 (119)	10.5
2005	17131 (126)	15.0	113914 (119)	10.3
2006	17060 (125)	14.4	118112 (123)	10.5
Total Number of suicides in the period 1997-2006	166304	15.2	1095219	
Annual Compound Growth Rate (in percent) between 1997-2006	2.5		2.4	

Table 1Number of Farmers' Suicides and all-Suicides in India, 1997-2006

Note: Figures in brackets give indices with 1997 as the base.

Source: Various issues of Accidental Deaths and Suicides in India (ADSI), National Crime Records Bureau (NCRB), Ministry of Home Affairs, Government of India.

It is also clear from the table that the number of farm suicides have kept up a more or steady increase over this period in the country. The year 1998 in fact show a sharp increase in the number of farm suicides – an 18 percent 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 upto 2001. The year 2002 once again saw a sharp increase –

close to a ten per cent increase compared to 2001 – and the number has more or less remained steady at around 17,000 to 18,000 per year in the period after that. The average number of farm suicides per year in the five year period 2002-2006, at 17,513 is substantially higher than the average (of 15,747 per year) for the previous five year period. Farm suicides have increased at annual compound growth rate of around 2.5 per cent per annum over the period 1997-2006; this rate is only marginally higher than the rate at which the general suicides have increased in this period. But as we shall see later, there are certain regions in the country where farm suicides are largely concentrated – and where the problem has seen a very sharp increase over this period with the farm suicides increasing at a much faster rate, in comparison, both with farm suicides in the country and general suicides in these regions. We should also note here that this increase in farm suicides may in fact be taking place on a constant – or even declining – base of number of farmers while the increase in general suicides is in fact taking place on an increasing base of general population, which is the reason why the general suicide rate in the country, defined as number of suicides per 100,000 population, has not seen much of a change over this period. We shall return to this issue later in the paper.

#### **Gender Composition of Farm Suicides in the Country**

Farm suicides, according to official data, take place overwhelmingly by the male farmers. Considering the period 1997-2006 as a whole, close to 85 per cent of all the farm suicides are by male farmers, and every fifth male suicide in the country is a farm suicide. (See Table 2.) Suicides in general, among the population as a whole, are also largely concentrated among males, but the degree of concentration here is significantly lower than in the case of farm suicides: male suicides in the general population account for nearly 62 percent of all suicides in the country. It is also worth noting that the number of male suicides among farmers has increased quite rapidly, at around 3 percent per annum during this period, 1997-2006; the number of female farm suicides in sharp contrast has remained almost static during the period. Consequently the extent of concentration of farm suicides among males has witnessed a steady increase over the period.

Part of the reason for this overwhelming concentration of farm suicides among males may have to do with the possible 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 male head of the household it is very likely that a

#### Table 2

# Number of Farmers' Suicides and all Suicides in India by Gender, 1997-2006

			rmers' Suic				All Suicides	
Year	Ma Number	le As % of all male suicides	Fen	As % of all female suicides	Male Farmers' suicide as a percent of all farmers'	Male	Female	Male suicide as a % of all suicides
1997	11229 (100)	20.0	2393 (100)	6.1	suicides 82.4	56281 (100)	39548 (100)	58.7
1998	12986 (116)	21.1	3029 (127)	7.0	81.1	61686 (110)	43027 (109)	58.9
1999	13278 (118)	20.3	2804 (117)	6.2	82.6	65488 (116)	45099 (114)	59.2
2000	13501 (120)	20.5	3102 (130)	7.3	81.3	66032 (117)	42561 (108)	60.8
2001	13829 (123)	20.9	2586 (108)	6.1	84.2	66314 (118)	42192 (107)	61.1
2002	15308 (136)	22.1	2663 (111)	6.5	85.2	69332 (123)	41085 (104)	62.8
2003	14701 (131)	20.9	2463 (103)	6.1	85.7	70221 (125)	40630 (103)	63.3
2004	15929 (142)	21.9	2312 (97)	5.6	87.3	72651 (129)	41046 (104)	63.9
2005	14973 (133)	20.5	2158 (90)	5.3	87.4	72916 (130)	40998 (104)	64.0
2006	14664 (131)	19.4	2396 (100)	5.6	86.0	75702 (135)	42410 (107)	64.1
Total Number of suicides, 1997-2006	140398	20.7	25906	6.2	84.4	676623	418596	61.8
Annual Compound Growth Rate (%), 1997-2006	3.0		Nil			3.3	0.8	

Note: Figures in brackets give indices with 1997 as the base. Source: Various issues of ADSI, NCRB, GOI. female farmer who commits suicide will not be recorded as a farmer in these records. But we would also think that in spite of this underestimation, the high concentration of farm suicides among males in fact represents an objective reality. In a context where the male head of the household is generally considered the 'bread winner' in the household, this phenomenon would point towards economic distress as a major motivating factor underlying large number of these suicides, and the acute agrarian crisis in the country would be the basis for this distress.

#### Suicide Rate among Farmers in India, 2001

The suicide rate among farmers – defined as number of farm suicides per 100,000 farmers – can be calculated on a reliable basis only for the year 2001 because that is the only year for which we have reliable data on the number of farmers in country, and in different states, from the Census of India. Extrapolation of this data for other years – unlike in the case of 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 the farm suicide rates – for all farmers, and for male and female farmers separately – only for the year 2001 and the data are presented in Table 3 below.

Table 3Suicide Rates among Farmers and the General Population by Gender in India,<br/>2001

	Item	All	Male	Female
Suicide rate among farmers (i.e., farmers'	Considering all cultivators among all (main plus marginal) workers in 2001 Census as farmers	12.9	16.2	6.2
suicides per 100,000 farmers)	Considering all cultivators among only main workers in 2001 Census as farmers	15.8	17.7	10.1
General Suicide r per 100,000 popu	ate in the population (i.e., all suicides lation	10.6	12.5	8.5

Sources:	1)	ADSI, 2001; NCRB; GOI.
	2)	Census of India, 2001

The farm suicide rate in the country in 2001 was 12.9, which was about one fifth higher than the general suicide, which was 10.6 in that year. As one would expect, the suicide rate among male farmers was much higher at 16.2, which was nearly two and a half times the rate for the female farmers (which was 6.2). The

suicide rate among male farmers was also considerably higher, by about 30 per cent, compared to general male suicide rate in the country in that year.

Even these high rates of farm suicides, we believe, are underestimates - and this for a number of reasons. First of all, as we had pointed out earlier, there is reason to believe that there is an undercount of the number farm suicides in the police records. Secondly, while the numerator in the calculation of these rates thus is an undercount, the denominator that we have used, i.e., the Census data for the number of cultivators in the year 2001, uses a rather liberal conception of a cultivator. This number includes cultivators among main workers - i.e., those who work in some occupation or other for the greater part of the reference year – as well as those among marginal workers, i.e., those who 'had not worked for the major part of the reference period'. Consequently even those for whom farming is 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 – as a farmer or cultivator in the Census: anyone who is 'engaged in cultivation' would be considered a cultivator here. Now it is obvious that if we consider only those 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 Table 3 and as one would expect, the overall farm suicide rate in 2001 at 15.8 is around 50 percent higher than the general suicide rate in the country in that year. And for the male farmers this rate, at 17.7, is significantly higher, by about 75 per cent, compared to the females.

Even these high farm suicide rates for 2001, we believe, would understate the rates for a later year, say 2006. This is because the number of farm suicides in the country, as we had noted earlier, after seeing a sharp jump in the year 1998 had remained more or less stable up to 2001, and the next year, i.e., 2002 once again witnessed a sharp increase of around 9 percent compared to the previous year; and this number has remained more or less steady at this high figure after that. But it is very likely that the base on which this increase has occurred, i.e., the number of farmers in the country, would have in fact 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 during this decade: this number was around 111 million in 1991 and it declined to 104 million – a decline of around 6 per cent over the entire decade. And even if we consider all the cultivators – i.e., those among main as well as marginal workers – this number remained more or less static during this

period: this figure was 125 million in 1991 and had increased just to 127 million in 2001, an increase of less than 2 per cent over the whole decade. Thus there are clear trends, either towards decline in cultivation as a main activity, or towards an increase in marginalization of cultivation as an activity, in the decade of 1991-2001. And we would claim that these trends, if anything, would have got strengthened after 2001 given the deep agrarian crisis that the country has witnessed during this period. While we do not have direct evidence to support this contention, indirect, circumstantial evidence does exist. The Situation Assessment Survey of Farmers of the National Sample Survey, done in its 59<sup>th</sup> round during the year January-December 2003 reported that as many as 40 percent of the farmers did not like farming and 'were of the opinion that, given a choice, they would take up some other career' (National Sample Survey, 2005; p11); 27 percent found it 'not profitable', another 8 percent reported that it is 'risky' and another 5 percent did not like it for 'other reasons'. Given such a huge disaffection with the occupation – the farm crisis obviously is a factor behind it – it would be a safe guess that a number of farmers would have given up their vocation in search of livelihood through other occupations. In sum, given the fact that number of farm suicides have increased considerably, and all likelihood the number of farmers would have declined since 2001, the farm suicide rate for 2001 would underestimate the rate for later years. The general suicide rate on the other hand – as it is clear from Table 1 – has not increased at all since 2001.

There may be an objection to our comparison of the farm suicide rate as estimated above with the general suicide rate since we have not attempted any standardization for age distribution. It is generally observed that suicide rates are higher in the working age groups compared to the two extremes – the very young and the aged – in the age pyramid. Now, since the age distribution of the 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 'crude' suicide rates – without age standardization – can be misleading: it would overstate the farm suicide rate in relation to the general suicide rate. While this objection is certainly legitimate we have not attempted age standardization for the simple reason that we do not have data required to carry out such an exercise. Data on age distribution of farm suicides for the country as a whole are provided every year in the publication "Accidental Deaths and Suicides in India" published by the NCRB although similar data for the states are not provided in this publication. The data for

the year 2001 for the country as a whole are summarized 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; and this is particularly so among the males. It is distressing to note that nearly 30 percent of all farm suicides in 2001 was among very young cultivators in the age-group of 15-29 years. Now age standardization of the suicide rate would require data on age distribution not only of farm suicides but also of farmers: the latter is not published so far by the Census – as far as we know – even for the country as a whole for the year 2001.

	Nu	mber of s		lale n differe	nt age gr	ouns	Female Number of suicides in different age groups					
Category	Upto 14 years	15-29 years	30-44 years	45-59 years	60 + years	Total	Upto 14 years	15-29 years	30-44 years	45-59 years	60 + years	Total
Farmers	88 (0.6)	3830 (27.7)	5119 (37.0)	3414 (24.7)	1378 (10.0)	13829 (100.0)	80 (3.1)	1028 (39.8)	889 (34.4)	451 (17.4)	138 5.4)	2586 (100.0)
Others	1410 (2.7)	16151 (30.8)	18384 (35.0)	11994 (22.9)	4546 (8.7)	52485 (100.0)	1429 (3.6)	17901 (45.2)	12056 (30.4)	5720 (14.4)	2500 (6.3)	39606 (100.0)
All	1498 (2.3)	19981 (30.1)	23503 (35.4)	15408 (23.2)	5924 (8.9)	66314 (100.0)	1509 (3.6)	18929 (44.9)	12945 (30.7)	6171 (14.6)	2638 (6.3)	42192 (100.0)
Farmers' suicides												
as a percent of all suicides	5.9	19.2	21.8	22.2	23.3	20.9	5.3	5.4	6.9	7.3	5.2	6.1

Table 4Distribution by Age of Farmers' Suicides in India, 2001

# Note: Figures in brackets give row percentages Sources: ADSI, NCRB, GOI, 2001.

We may also note that apart from age distribution there are also other proximate factors which have a bearing on the comparison of farm suicide rates with the general suicide rates. And one such important factor is the rural-urban distribution of the two groups: While farmers would be overwhelmingly – almost by definition – rural residents, close 30 percent of the general population would reside in urban areas. This would mean that ideally, farm suicide rates should be compared with suicide rates in rural areas. Unfortunately the NCRB data do not give rural-urban distribution of suicides, and hence no such comparisons are possible. Now it is generally observed that rural suicide rates are lower than the 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 exactly of the opposite nature than the error introduced by the

absence of age standardization in their comparison. This, coupled with the fact that farm suicide rates estimated for the year 2001 are likely to be underestimates – either for that year itself or for a later year, say, 2006 – for reasons that we had elaborated above , should confirm, in our view, the rather distressing claim that farm suicide rates are significantly higher today than the general suicide rates.

In sum, four significant facts emerge from our discussions so far on farm suicides in the country as a whole:

- 1) A large number of farmers close to 17,000 per year commit suicide today in the country, a number we believe is unacceptably large.
- The rate of suicide among farmers is also likely to be very high in comparison with the rate for the general population;
- An overwhelming proportion (nearly 85 percent) of farm suicides are by male farmers; and the number of farm suicides by young farmers, accounting for nearly 30 percent of the total, is not small; and
- 4) The 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 and 2002 in the subsequent years after these sharp jumps, there is no reverting back to older numbers; they in fact seem to stabilize at this higher level till the next jump occurs. As for the farm suicide rates, there is reason to believe that they are increasing over time, at least from the year 2001 onwards; the contrast in this regard with general suicide rates which have remained more or less stable is noteworthy.

Distressing as these numbers and trends are, a disaggregated analysis of the data show that there are certain regions in the country where these problems – of the numbers, trends and rates of farm suicides – are much more acute. Let us turn a discussion of these regional patterns now.

#### **SECTION II**

### **REGIONAL PATTERNS IN FARM SUICIDES IN INDIA**

## Farm Suicides in Different States in India

There is a high degree of variation in terms of number, as well as rate, of farm suicides across different states in the country. (See Table 5 below.) 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); and so is the correlation between number of general suicides and farm suicides (+0.85; n=21). Thus it appears that those states which are suicide prone in a general sense are also the ones which are prone to farm suicides: the general socio-economic context does mould the incidence and number of suicides in both the cases.

in the Major States of India, 2001											
		Number	of suicides	Farmers'	Suicide rate	e (per 100,000					
				suicides		Among	Farmers				
Sl. No.	State	Among farmers	Among all population	as a percent of all suicides	In general population	With <u>all</u> cultivators considered	With only main cultivators considered				
1	Maharashtra	3536	14618	24.2	15.1	29.9	34.7				
2	Karnataka	2505	11881	21.1	22.5	36.4	40.5				
3	Andhra Pradesh	1509	10522	14.3	13.8	19.2	20.4				
4	Chhattisgarh	1452	4025	36.1	19.4	33.7	41.6				
5	Madhya Pradesh	1372	6860	20.0	11.4	12.4	15.4				
6	West Bengal	1246	13690	9.1	17.1	22.0	27.3				
7	Kerala	1035	9572	10.8	30.1	142.9	176.5				
8	Tamil Nadu	985	11290	8.7	18.1	19.3	20.8				
9	Uttar Pradesh (incl.Uttarakhand)	709	3827	18.5	2.2	3.0	3.7				
10	Gujarat	594	4791	12.4	9.5	10.2	12.6				
11	Rajasthan	505	3195	15.8	5.7	3.8	5.3				
12	Orissa	256	4052	6.3	11.0	6.0	7.5				
13	Assam	167	2647	6.3	9.9	4.5	6.2				
14	Haryana	145	2007	7.2	9.5	4.8	6.5				
15	Pondicherry	91	529	17.2	54.3	834.9	865.8				
16	Bihar (incl.Jharkhand)	88	853	10.3	0.8	0.7	0.9				
17	Punjab	45	648	6.9	2.7	2.2	2.4				
18	Tripura	41	854	4.8	26.7	13.1	16.2				
19	Himachal Pradesh	22	307	7.2	5.1	1.1	2.0				
20	Goa	18	256	7.0	19.0	35.7	60.7				
21	Jammu & Kashmir	15	153	9.8	1.5	0.9	1.6				
All Ir		16415	108506	15.2	10.6	12.9	15.8				
	ficient of variation n=21)	116.3	93.4		82.3	299.0	280.6				

 
 Table 5

 Number and Rate of Suicides for the General Population and Farmers in the Major States of India, 2001

# Source: ADSI, NCRB, GOI, 2001.

But there are also some distinct differences between the distribution of farm suicides on the one hand, and of general suicides on the other, across different states.

In terms of distribution of the number of suicides, the extent of concentration in certain states – and regions – in the country seems to be higher in the case of farm suicides compared to general suicides. Thus the top five states in terms of the number of farm suicides in 2001 – viz., Maharashtra, Karnataka, Andhra Pradesh and Chhattisgarh and Madhya Pradesh – account for nearly two-thirds (63 percent) of the suicides in the country. The top five states in terms of the number of general suicides only partially overlaps with this set: they are Maharastra, West Bengal, Karnataka, Tamil Nadu and Andhra Pradesh and they account for nearly 57 per cent of the total general suicides in the country.

Going by the farm suicide rate, Pondicherry has a horrendously high rate of about 835 farm suicides per every 100,000 in the state. But the state is a tiny one and is largely urban and hence has only a small number of cultivators (10,900 in 2001). The case of Goa, again with a high farm suicide rate is somewhat similar. Kerala, which comes next to Pondicherry, with a farm suicide rate of 143, is much larger compared to Pondicherry and Goa: But in terms of number of suicides it stands seventh among all the states partly because the extent of non-farm employment in the state is very high and hence the number of cultivators relatively low. Anyway, it also worth noting that all these three states – Kerala, Pondicherry and Goa – have very high general suicide rates: Pondicherry in fact has the highest suicide rate in the country (54) followed by Kerala.

At the other extreme there are a number of states – situated largely in the northern part of the country, in the Gangetic Plain in particular – like Bihar, Uttar Pradesh, Rajasthan, Punjab, Jammu & Kashmir etc – where the general suicide rates as well as farm suicide rates are very low.

The five top states which account for a high number of farm suicides also have high rates of farm suicides: Karnataka with a farm suicide rate of 36.4 in 2001 comes next to Kerala, with Chhattisgarh (33.7) and Maharashtra (29.9) not much behind. The farm suicide rate in Andhra Pradesh (19.2) is also significantly higher than the all-India average. It is also worth noting that these states also have high or above average general suicide rates in comparison with the all-India rate. A distinguishing feature of the above four states is also that, as we shall see shortly, there has been a steady, almost relentless, increase in the number of farm suicides in them over the period under consideration. Given that there are such wide variations in the country, across different states, in terms of number and rate of farm suicides, it should be possible to identify regions where the problems are very acute and are worsening over time. And this is what we shall attempt now.

## **Regional Patterns in Farm Suicides in India**

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

- (i) Number of farm suicides in the state;
- (ii) Farm suicide rate (for 2001);
- (iii) Farm suicides as a percent of all suicides in the state; and
- (iv) The trend over 1997-2006 in the number of farm suicides.

Groups have been identified by the number, rate, intensity and trend of farm suicides. On the basis of these criteria, we have identified four different groups of states in the country. We may note here that 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 are rather disparate in that a number of states within each do not have common boundaries.

- <u>Group I states</u>: Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh and Madhya Pradesh. These states are contiguous and hence form a region or zone.
- <u>Group II states</u>: Kerala, Tamil Nadu, Goa, Pondicherry, West Bengal and Tripura.
- 3) Group III states: Assam, Gujarat, Haryana and Orissa; and
- 4) <u>Group IV states</u>: Bihar, Jharkhand, Uttar Pradesh, Uttarakhand, Himachal Pradesh, Punjab, Jammu & Kashmir and Rajasthan: This again constitutes a region or zone consisting of 8 states in North India, largely concentrated in the Gangetic Plain.

Data on the number, rate, intensity and trend in farm suicides in these four groups of states are summarized in two tables, Table 6 and Table 7 below. Of the four groups, Group IV, a large contiguous region consisting of 8 states in North India – a

large part of which falls in the Gangetic Plain – is the one where farm suicides are not a major problem, at least during the period under consideration. The number of farm suicides, at just around 1400 per year on an average, 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 both in terms of area and population. The rate of farm suicides, at 2.6, is much lower than the all-India average. This is also the region where the general suicide rate is low. And lastly, the number of farm suicides, after showing an initial spurt in the years 1998 and 1999, has in fact shown a declining tendency after that. All in all, in this the zone where problems of farm suicides are not very acute, at least in comparison with other parts of the country.

Table 6
Number and Rate of Suicides for the General Population and Farmers
in Different Groups of States, 2001

	Number	of suicides	Farmers'	Suicide Rate	e (per 100,000	members	
	Tumber	or surcrues	suicides		Among Far		
Group of States	Among farmers	Among all population	as a percent of all suicides	In general Population	With <u>all</u> cultivators considered	With only main cultivators considered	
1) <i>Group – I</i>							
<i>States</i> (Maharashtra, Karnataka, Andhra Pradesh, Chhattisgarh & Madhya Pradesh )	10374 (63.2)	47906 (44.2)	21.7	15.6	24.8	28.7	
2) Group – II							
<i>States</i> (Kerala, Tamil Nadu, Goa, Pondicherry, West Bengal & Tripura)	3416 (20.8)	36191 (33.4)	9.4	20.1	28.8	33.6	
3) Group – III							
<b>States</b> (Assam, Gujarat, Haryana, Orissa)	1162 (7.1)	13497 (12.4)	8.6	10.0	6.9	8.9	
4) <i>Group – IV</i>							
<i>States</i> (Bihar, Jharkhand, Himachal Pradesh, Jammu & Kashmir, Punjab, Rajasthan, Uttar Pradesh & Uttarkhand)	1384 (8.4)	8983 (8.3)	15.4	2.4	2.6	3.3	
All-India	16415 (100.0)	108506 (100.0)	15.2	10.6	12.9	15.8	

Note: Figures in brackets give percentage of suicides in the region. Source: ADSI, 2001; NCRB; GOI.

	Gr	oup I Sta	ites	Gr	oup II Sta	ates	Gro	oup III St	ates	Gro	up IV St	ates
Year	Farmers' Suicides	All suicides	Farmers' Suicides as a % of All Suicides	Farmers' Suicides	All suicides	Farmers' Suicides as a % of All Suicides	Farmers' Suicides	All suicides	Farmers' Suicides as a % of All Suicides	Farmers' Suicides	All suicides	Farmers' Suicides as a % of All Suicides
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
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
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
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
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
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
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
2004	11809 (163)	51482 (133)	22.9	3492 (93)	36939 (110)	9.5	1393 (128)	13912 (118)	10.0	1438 (99)	9495 (96)	15.1
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
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
Total for 1997-2006	101000	475427	21.2	37424	363955	10.3	12637	135008	9.4	14362	102633	14.0
ACGR(%), 1997-2006	5.4	3.3		- 2.7	1.6		1.9	2.3		- 2.6	0.8	

 Table 7

 Number of Farmers' Suicides and all Suicides in Different Groups of States, 1997-2006

Note: Figures in brackets give indices with 1997 as the base. Source: Various issues of ADSI; NCRB; GOI.

Group III consists of four non-contiguous states of Assam, Gujarat, Haryana and Orissa: The number of farm suicides per year in this zone, at around 1300, is again not very high. The rate of farm suicides, at around 7, is lower than the all-India average, but considerably higher than the rate in the Group IV states. These are also the states with moderate levels of general suicide rates – around the same as the all-India rate – and the farm suicide rate here is lower than the general suicide rate. The intensity of farm suicides – i.e., farm suicides as a per cent of all suicides – in these states is also not very high. In terms of the trend in the number of farm suicides, the years 1998 and 2002 saw sharp increases and after 2002 the number seems to have remained more or less at the same level as in 2002. So, these are states where the problem of farm suicides is not yet acute, but there seem to be some incipient, disquieting tendencies here.

It is in the other two groups of states, Group I and Group II that the picture is very disturbing and this is particularly so in the Group I states. The Group II states consist of four states in South India - two large (Kerala and Tamil Nadu) and two small (Goa and Pondicherry) – and two in the eastern part of the country – one large (West Bengal) and one small (Tripura). The farm suicide rate for this group of states in 2001, at around 29, was in fact the highest among all the groups; but this is 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 this group in 2001 works out to around 21, which is still quite high, almost twice as high as the all-India average, but slightly lower than the rate for Group I states. But what is noteworthy about Group II states is that the general suicide rates here are very high, nearly twice as high as the corresponding all-India rate. Consequently, the intensity of farm suicides – i.e., farm suicides as a percent of all suicides – in this group is quite low: farm suicides account for around a tenth of all suicides. So, the phenomenon of high farm suicides in this group is also partly due to the fact that these states are generally the suicide prone ones. Moreover, while the number of farm suicides in this group is substantial - at around 4000 per year – after the two sharp spurts, one in 1998 and the other in 2002, the trend has been a declining one. After 2002 in fact the number of farm suicides in this group declined quite sharply from around 4600 in 2002 to 2900 in 2006. So, it is likely that the rate of farm suicides in this group of states has seen a decline since 2001. 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.

It is in the Group I states, that the problem of farm suicides seems to be the most acute. This group consists of five contiguous states in the heartland of India as it were: they are, as noted above, 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 is not as acute here as in the other four states in the group: while the number of farm suicides as well as the intensity are quite high here, the farm suicide rate here is not very high; it is just around the same as the all-India average. But we have been rather forced to bring this state into this group because of some practical reasons. The state of Chhattisgarh was formed in the year 2001 by bifurcating 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; the 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 this group of states to observe the trends in suicides from 1997 onwards.

The number of farm suicides in this region is very high: over the ten year period of 1997 to 2006 this region witnessed a total number of more than 100,000 farm suicides giving an average of nearly 10,000 per year. The farm suicide rate here, at around 25, is very high, nearly twice as high as the all-India average. While the general suicide rate in this region, at around 16, is significantly higher than the all-India average, it is noteworthy that it is lower than the corresponding rate for Group II states. Consequently the gap between the general suicide rate and farm suicide rate here is much higher: the latter is 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 is that, what we have termed the intensity of farm suicides – i.e., farm suicides as a percent of total suicides – is high in this region. Every fifth suicide in this region happens to be a farm suicide. What is also particularly distressing about the situation in this region is that unlike in Group II states, the number of farm suicides here has seen a consistent, almost relentless, increase over the period under consideration. The only year where there was 'break' as it were in the trend was 2005, when the number of farm suicides saw a substantial decline by around 850, but the very next year, 2006, witnessed a reversal with an increase of 679. Considering the period 1997-2006 as a whole, farm suicides in this region increased at an annual compound growth rate of 5.4 percent. This rate, if held, would mean doubling of the number of suicides every 13-14 years. It is noteworthy that there is no year after 2001 when the number of farm suicides in this region has been less than 10,000.

There are three corollaries to the observations made above regarding the large and increasing number of farm suicides in this region. The first is that, going by our arguments earlier that there is likely to be a decline in the absolute number of cultivators in the country in this period of agrarian crisis – and there is no reason to believe why the argument should not hold for this region – and given the sharp increase in the number of farm suicides here, the farm suicide <u>rate</u> here must have seen a sharp increase over the period under consideration; and this is possibly the only region in the country where a very high rate has seen a further increase. Secondly, it is this region where the farm suicides in the country are largely concentrated and the extent of such concentration is on the increase. Considering the period 1997-2006 as a whole, every 6 out of 10 farm suicides in the country took place in this region (See Table 8 below). In 1997 this region accounted for nearly half of the total farm suicides in the country; and in 2006 this proportion had increased to more than two-thirds. We may just note here that going by the Census data for the year 2001, this region accounts for just 30 percent of the population, and 33 per cent of the total cultivators, in the country as a whole.

Year		0 .	group of state es in the cour		Percentage share of group of states in total general suicides in the country				
rear	Group I	Group II	Group III	Group IV	Group I	Group II	Group III	Group IV	
1997	53.1	27.5	8.0	10.7	40.6	35.1	12.3	10.3	
1998	52.3	27.7	8.8	10.6	41.5	34.4	11.9	10.7	
1999	58.6	23.1	6.5	11.3	41.7	33.4	12.2	11.2	
2000	59.2	23.0	7.4	9.9	43.4	33.1	12.9	9.1	
2001	63.2	20.8	7.1	8.4	44.2	33.4	12.4	8.3	
2002	58.5	25.9	7.7	7.4	44.7	32.1	12.4	8.9	
2003	63.1	21.6	7.8	7.0	44.4	32.8	12.5	8.8	
2004	64.7	19.1	7.6	7.9	45.3	32.5	12.2	8.4	
2005	64.0	20.6	7.6	7.2	43.7	33.2	12.2	9.2	
2006	68.2	17.2	7.5	6.7	44.1	32.8	12.2	9.0	
For the period 1997- 2006	60.7	22.5	7.6	8.6	43.4	33.2	12.3	9.4	

 Table 8

 Percentage Share of Different Groups of States in Total Suicides among

 Farmers & General Population in India, 1997-2006

#### Source: Various issues of ADSI; NCRB, GOI.

Thirdly, the fact that farm suicide rates are much higher than the general suicide rates and farm suicides account for a very large proportion of total suicides in this region would also imply that there is a disjunction between farm suicides and general suicides here: the high farm suicides here do not necessarily reflect a situation of proneness to suicides in a general sense. The contrast that this region presents to the Group II states in that sense is worth noting.

We had noted earlier that considering the country as a whole farm suicides are overwhelmingly concentrated among males; and this is a phenomenon observed in all the four groups of states. If we look at the trend in the number of farm suicides among male in Group I states the picture appears to be even more stark than that represented by total farm suicides. Considering the period 1997-2006 as a whole, the number of male farm suicides in this region increased at an annual compound growth rate of 6.3 per cent (See Table 9 below); the corresponding figure for female farm suicides is much lower, at 1.4 percent per annum. If this growth for male farm suicides held, it would mean doubling of the number every 11-12 years. Almost every third male suicide in this region today is a farm suicide.

Year	Number of suicides among male farmers	Number of suicides among males in general population	Male farmers' suicides as a percent of male suicides	Share of Group I states in total male farmers' suicides in the country
1997	5756 (100)	22872 (100)	25.2	51.3
1998	6684 (116)	25893 (113)	25.8	51.5
1999	7711 (134)	27536 (120)	28.0	58.1
2000	7869 (137)	28902 (126)	27.2	58.3
2001	8705 (151)	29764 (130)	29.2	62.9
2002	8887 (154)	31306 (137)	28.4	58.1
2003	9111 (158)	31828 (139)	28.6	62.0
2004	10283 (179)	33623 (147)	30.6	64.6
2005	9573 (166)	32331 (141)	29.6	63.9
2006	9951 (173)	33984 (149)	29.3	67.9
Total for the period 1997-2006	84530	298039	28.4	60.2
ACGR (%) 1997-2006	6.3	4.5		

Table 9Number of Suicides among Male Farmers in Group I States, 1997-2006

# Note: Figures in brackets give indices with 1997 as the base Source: Various volumes of ADSI; NCRB, GOI

Within this region, it is in the state of Maharashtra that the problem is particularly acute and distressing. Over the ten years between 1997 and 2006 the number of farm suicides in this state more than doubled, from 1917 to 4453 (See Table 10 below). This gives an annual compound growth rate of an exceedingly high figure of 9.8 per cent for farm suicides here, a rate at which the number would double every 7-8 years. Considering the period 1997-2006 as a whole, every fifth farm suicide committed in the country during this period occurred in Maharashtra; for the

latest year, i.e., 2006 this figure is every more stark: every fourth farm suicide in the country occurred here in that year. And if we look at male farm suicides in this state, the picture is even more bleak: this number increased at an astounding annual compound growth rate of 11 percent between 1997 and 2006, which would imply a doubling of the number every 6-7 years. Maharashtra , it appears, is the graveyard of farmers today.

		Mahar	ashtra		Others States in Group I					
Year	Number of Farmers' suicides in the state	Farmers' suicides as a percent of all suicides in the state	Farmers' suicides as a percent of farmers' suicides in the country	Number of male farmers' suicides	Number of Farmers' suicides in the state	Farmers' suicides as a percent of all suicides in the states	Farmers' suicides as a percent of farmers' suicides in the country	Number of male farmers' suicides		
1997	1917 (100)	15.2	14.1	1600 (100)	5319 (100)	20.2	39.0	4156 (100)		
1998	2409 (126)	17.6	15.0	1938 (121)	5974 (112)	20.1	37.3	4746 (114)		
1999	2423 (126)	17.8	15.1	2050 (128)	7007 (132)	21.5	43.6	5661 (136)		
2000	3022 (158)	21.6	18.2	2492 (158)	6815 (128)	20.6	41.0	5377 (129)		
2001	3536 (184)	24.2	21.5	2945 (184)	6838 (129)	20.5	41.7	5760 (139)		
2002	3695 (193)	25.4	20.6	3155 (197)	6814 (128)	19.6	37.9	5732 (138)		
2003	3836 (200)	26.0	22.3	3381 (211)	6989 (131)	20.3	40.7	5730 (138)		
2004	4147 (216)	28.2	22.7	3799 (237)	7662 (144)	20.8	42.0	6484 (156)		
2005	3926 (205)	27.2	22.9	3638 (227)	7033 (132)	19.9	41.1	5935 (143)		
2006	4453 (232)	28.7	26.1	4111 (256)	7185 (135)	19.7	42.1	5840 (141)		
Total for 1997- 2006	33364	26.3	20.1	29109	67636	19.4	40.7	55421		
ACGR (%) 1997- 2006	9.8			11.1	3.4			3.9		

Table 10Farmers' suicides in Maharashtra, 1997-2006

### Note: Figures in brackets give indices with 1997 as the base Source: Various issues of ADSI; NCRB, GOI.

Now from all available evidence – particularly from an alert socially conscious print media in the country – there are certain pockets within each of these states in Group I where farm suicides are concentrated and where the problem would

be very, very acute. The Vidarbha region in Maharashtra, Deccan and Hyderabad Karnataka regions in Karnataka, Telangana and Rayalaseema regions in Andhra Pradesh seem to be the ones – along with Wayanad in Kerala – have received a great deal of attention and coverage by the press on this issue. Consequently the governments in these states have been forced to acknowledge the problem and are forced to take some steps to mitigate the crisis, however inadequate these measures are. Unfortunately Chhattisgarh, where the problem is as acute as elsewhere in Group I states – with the exception of Maharashtra – has not received similar attention, either from the press or from the state government.

Now these sub-regions within these states – i.e., Vidharbha, Deccan and Hyderabad Karnataka, Telangana and Rayalaseema and Chhattisgarh – in fact do constitute a contiguous region in the heartland of India as it were. 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 that we have done for different groups of states above. But it would be a safe guess that it is in this, semi-arid, poor, backward region in the heartland of India where the problems of farm suicides – in terms number, rate, intensity and trend – would be the most acute and distressing. We would also hazard a guess that being a very backward area the general suicide rates here may not be high, as it is generally observed that there is an inverse relation between socio-economic development and status and general suicide rates. In that sense this is a region where the problem of suicides in largely a problem of farm suicides; and in this sense this region would present a striking contrast to states in Group II like Kerala, Tamil Nadu etc.

In sum, our discussions in this section have underlined the fact that the problem of farm suicides in the country is particularly acute in certain regions. It is the what we have termed the Group I states – Maharashtra, Karnataka, Andhra Pradesh and Chhattisgarh and Madhya Pradesh – where this problem is very acute. And as we have pointed out above, there is a contiguous, dry, semi-arid, poor, backward region within these states – in the heart land of India – where the problem must be very severe. The number and rate of farm suicides here must be very high and increasing rapidly; farm suicides here account for a large proportion of such suicides in the country as a whole; and the phenomenon of farm suicides here seems to be divergent from suicides in general.

# SECTION III FACTORS UNDERLYING FARMERS' SUICIDES

As with any suicide, mono-causal explanations for farmers' suicides would be totally inadequate. And they cannot be explained purely in terms of behavioural patterns and personal, psychological motivations; they have to seen as social phenomena and one has to unearth the underlying social causes. It is worth emphasizing this simple point because there have been attempts at late, especially by state functionaries – particularly in the most affected states like Maharashtra – to delink farm suicides from the agrarian crisis. The claim often made is that a number of farm suicides are not attributable to agrarian crisis and are due to factors like unsustainable life styles of farmers, alcoholism, large expenses on marriages, or due to some incurable diseases etc. And 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" in fact gives distribution of suicides by as many as 26 'causes': bankruptcy or sudden change in economic status; suspected/illicit relation; 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. Now this distribution is available only for all general suicides in the population; there is no cross classification of suicides by 'causes' and 'profile' of suicide victims. But 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. And this 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 would be suspect for the simple reason they are gathered by police officials through enquiries with relatives, friends and neighbours or through letters and records left by the suicide victims. It is best to quote on this issue from the classic study on suicides by Durkheim done more than a century ago in 1897:

.....(W)hat are called statistics of the motives of suicides are actually statistics of the opinions concerning such motives of officials, often of lower officials, in charge of this information service. ......To determine the cause of a phenomenon is always a difficult problem. The scholar requires all sorts of observations and experiments to solve even one question. Now, human volition is the most complex of all phenomena. The value of improvised judgments, attempting to assign a definite origin for each special case from a few hastily collected bits of information is, therefore, obviously slight. As soon as some of the facts commonly supposed to lead to despair are thought to have been discovered in the victim's past, further research is considered useless, and his drunkenness or domestic unhappiness or business troubles are blamed, depending on whether he is supposed recently to have lost money, had home troubles or indulged a taste for liquor. Such uncertain data cannot be considered a basis of explanation for suicide. (Durkheim 1897/1979; p 148-149).

This perceptive observation, we believe, applies as much to official data on causes underlying suicides today as it did more than a century ago.

Thirdly, even if these data are credible, the causes enumerated relate almost solely to individual motivations and behavioural patterns and not to the larger socioeconomic factors underlying them. Once again a quotation from Durkheim would be apt here:

....(E)ven if more credible, such data could not be very useful, for the motives thus attributed to the suicides, whether rightly or wrongly, are not their true causes.....The reasons ascribed for suicide,....or those to which the suicide himself ascribes his act, are usually only apparent causes.....They may be said to indicate the individual's weak points, where the outside current bearing the impulse to self-destruction most easily finds introduction. But they are no part of this current itself and consequently cannot help us understand it. (op.cit; pp 149-151).

The reason why we have gone into this rather elaborate discussion above on the so-called 'causes' of suicides as enumerated in 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 individual suicide victim, and hence, in effect end up blaming the victim. And they are hardly helpful in devising appropriate policy interventions in dealing with the distressing phenomenon.

Now, a detailed, rigorous study of the complex set of socio-economic factors underlying farm suicides in the country is not a task we are equipped to attempt. We would point out below some of these possible factors; needless to add they should be seen as preliminary, initial hypotheses, needing considerable further empirical work to support them.

While these 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 been there from around the mid-to-late 1990s, and this is the period, as we have seen above, when farm suicides have been high and are increasing, particularly in the Group I states. But farm crisis in the country has been acute, persistent and widespread – with almost every state and region in the country experiencing this crisis in one way or other. So, there can a legitimate query as to why farm suicides are largely a phenomenon confined to a part of the country. Why is it that the problem is the most acute in Group I states and particularly in the contiguous, semi-arid zone in the south and central parts of India, consisting of Vidharbha, Deccan and Hyderabad Karnataka, Telangana and Rayalaseema and Chhattisgarh, within those states?

We would claim that it is a combination of a set of factors in this semi-arid region in the heartland of India which has resulted in this acute crisis there. Three such broad issues are relevant here:

- 1) The pre-existing conditions of very high vulnerability in the region;
- 2) The present acute agrarian crisis; and
- Absence of alternate 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 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 which is dictated by poor agrarian conditions rather than by agricultural modernization. The cash crops in the region – like 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 is in a context of high levels of pre-existing vulnerability that the agrarian crisis occurs, 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 stabilization measures, investments in agriculture - and irrigation, soil conservation etc. - came down and this would have very serious consequences in a region where soil and irrigation problems are already acute. Banking sector reforms meant that organized credit to agriculture practically dried up. With the withdrawal of agricultural subsidies, costs of production, particularly of cash crops like cotton, shot up. On top of all this, external trade liberalization, in the form of withdrawal of farm quotas and tariffs provided the ground for farm price crash, again, particularly in cash crops like cotton. The extension and price support services provided by the state were drastically curtailed. All this obviously would have very serious consequences on a fragile agrarian economy dependent on state support.

Now, a socio-economic context, like nature, abhors a vacuum. The space vacated by the state was taken up 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 farmers was essentially a predatory one exploiting the latter's vulnerability during the period of crisis.

All this resulted in loss of livelihood 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 in a time of crisis like this. The region, as we noted above, is very poorly developed even in terms of sustained, decent nonagricultural 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 – while being not insubstantial in number – have not been persistent increasing. In fact between 1997 and 2006 the number more than halved, from 932 to 426. Perhaps the major reason underlying this is that Tamil Nadu perhaps has the best rural-urban linkages in the country. The state is not only the most urbanized one in the country, 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 are available to the poor in nearby towns during periods of agrarian crisis. And this, we believe, has provided a buffer against large scale suicide by farmers.

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

Often there is an attempt to isolate a single factor – like say indebtedness – to claim that either that is the major cause underlying farm suicides, or that - in the absence of any strong correlation between spatial incidences in farm suicides and indebtedness - it in fact is not a causative factor at all. Such attempts we believe are simplistic and miss the basic point that mono-causal explanations of suicides, including farm suicides, are totally inadequate. Again to borrow from Durkheim's terminology, there are many 'outside currents bearing the impulse to self-destruction', and there are many 'individual's weak points' where such impulses 'most easily find introduction'.

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 etc. – may again precipitate a crisis.

Thirdly, just as mono-causal explanations of farm suicides are totally inadequate, so would sporadic, disjointed, single-point policy interventions to deal with the problem be. We do not want to dismiss the role of 'package measures' – like a combination of debt relief, remunerative prices, employment guarantee measures etc – which, by providing a degree of relief and hope to farmers can bring down the number of suicides at least in the short term – something which 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 the pre-existing vulnerability on the one hand and the acute agrarian crisis on the other. This, we believe, would call 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 modernization of the agricultural sector. Basic institutional transformation in the sector as a pre-condition for its comprehensive modernization has to be recognized.

Such basic changes in state policies rarely come without pressures created by mass movements of the deprived sections of the population. India has had an enviable tradition of farmer's movements, with large scale farmers' mobilizations 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 which is as disturbing as the epidemic of farm suicides that we witness today. The reasons for this are not known; and understanding it as important as understanding the reasons for the epidemic of farm suicides in the country.

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