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A Case Study of Village-level Birth Records in India, Using a Census Type Data as a Point of Reference

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A Case Study of Village-level Birth Records in India, Using a Census Type Data as a Point of Reference

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Abstract

This study clarifies the status of village-level birth records in a village in India, using a census type survey data on this village as a point of reference. We conduct a micro level discrepancy analysis, comparing each and every birth event recorded in the administrative records at the village with the corresponding person in the census type survey data on the same village.

The level of birth registration in the Civil Registration System (CRS) in India is improving. However, even if we assume 100 per cent registration, it gives information only about the births occurring within the village, whereas in majority the cases parents go to their native villages or go for institutional delivery at the nearest town. This points to the fact that information from the CRS of a particular village cannot be used as the basis for obtaining demographic features of children needed for local level development.

The result also shows that majority of the unregistered children belong to the weaker sections of the village.

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1. INTRODUCTION

This paper is an empirical study of village birth records in India, using the data collected in the Project on Agrarian Relations in India (PARI) as a point of reference. The birth record is a suitable starting point to study the overall administrative records of a village.

Increasing requirement and demand for decentralised databases for purposes of micro level planning in development programmes have emerged, following the democratic decentralisation process set in motion by the 73rd and 74th Constitutional amendments that gave greater responsibilities and powers to the panchayats. In this context, the National Statistical Commission of India states that the Civil Registration System (CRS) ¹ has the potential to provide estimates of vital rates for district level and below and form the basis for planning health and family welfare programmes at the local level as required by the 73rd and 74th Amendments. However, the CRS suffers from poor coverage and quality in registration. ² In fact, the Sample Registration Survey has revealed the low coverage of the CRS, especially in rural areas. The coverage of the birth registration at national level was said to be only 55 percent in 1995.

Subsequently, the High Level Expert Committee on Basic Statistics for Local Level Development ³ examined the village databases available. As for birth records at the village level, the Committee found that useful birth records are the registers maintained by Anganwadi workers rather than the birth registers of the CRS.

This study will clarify the status of two types of birth records, using the PARI data as a point of reference. The examination made by the National Statistical Commission adopted an exclusively macro level view, using the estimate based on the Sample Registration System as a means of validating the coverage of the CRS. However, it does not give us micro level information of the social contexts at the village around the birth records.⁴ In this respect the High Level Expert Committee on Basic Statistics for Local Level Development concentrates

¹ Registrar General, India (1996), Registrar General, India (1998), Registrar General, India (1999a), Registrar General, India (1999b), Registrar General, India (2001), United Nations, Department of Economic and Social Affairs Statistics Division (2001).

² National Statistical Commission (2001), Para 2.7.8 and 9.3.27.

³ Government of India (2006)

⁴ Okabe, J. (2004), p21.

on the social contexts of the village but has not yet made an empirical study on the quality of village birth records. Therefore, unlike the macro level discrepancy analysis using the Sample Registration System, this study conducts a micro level discrepancy analysis, comparing each and every birth event recorded in the administrative records at the village with the corresponding person in the PARI's census type data. We will pursue the socio-economic background of those villagers who stay out of birth registers, and why some births are not registered. We would like to assess the potential of village-level birth records for the purpose of micro level planning.

This study is closely related to a universal issue. A birth record is a particular kind of administrative record. Administrative records in general play an important role in modern statistical systems, as they are one of the two major data sources with survey data. ⁵ Administrative registers maintained by the Nordic welfare states such as Denmark, Finland and Sweden are so advanced that they can substitute for almost all survey data, including censuses. ⁶ In contrast, most of the other countries in the world have an unrecorded or non-observed economy, ⁷ which proves that their administrative records are much less sophisticated than those of Nordic countries. Therefore the concern with the use of administrative records has been growing in the contemporary world. ⁸ The National Statistical Commission of India has found that the major deficiencies in the areas of socio-economic statistics are attributable largely to the collapse of the administrative statistical system, ⁹ many of which are a by-product of the general administration of the States, based on the records

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⁵ The first scholar to pay attention to the record base statistics was a German statistician, Georg von Mayr. He defined the record base statistics as sekundäre Statistik' (secondary statistics) for the first time. See Mayr, Georg von (1914), S.56.

⁶ Thygesen, Lars (1995)

⁷ Bloem, A., and Shrestha (2000), OECD (2002).

⁸ For the discussion in Europe, see Conference of European Statisticians (2003), Hoffmann, Eivind (1995). Japan's Society of Economic Statistics has for several decades discussed the data collection procedures not only from the purely technical and administrative point of view, but also from the viewpoint of social context around them, including various social relations around or between the state and civil society. The use of administrative records in these contexts has been discussed in this Society. For a review, see, The Society of Economic Statistics, Japan (2006), pp.90-105.

⁹ See, in particular, National Statistical Commission(2001), Para 2.7.3, 9.1.4, 9.1.5 and 14.3.10. The National Statistical Commission (2001) states that 'over the years, the Administrative Statistical System has been deteriorating and has now almost collapsed in certain sectors. The deterioration had taken place at its very roots namely, at the very first stage of collection and recording of data, and has been reported so far in four sectors: agriculture, labour, industry and commerce. The foundation on which the entire edifice of Administrative Statistical System was built appears to be crumbling, pulling down the whole system and paralysing a large part of the Indian Statistical System. This indisputably is the major problem facing the Indian Statistical System today.' (Para 14.3.10).

of the offices concerned. India has a well-established National Sample Survey network¹⁰, but it cannot easily compensate for the deficiencies of the administrative statistical system, particularly considering the demand for decentralised databases in the small areas like villages.¹¹

2. OBJECTIVE

Objective of the study was to conduct at a village in Maharashtra a micro level discrepancy analysis on two types of birth records, namely, birth records maintained by the CRS and Anganwadi workers, using the PARI data as a point of reference. We attempted to assess the effectiveness in registration of births by the CRS in the village of Warwat Khanderao in Buldhana district of Maharashtra.

3. VILLAGE PROFILE

1. Location of the village

The village Warwat Khanderao belong to Sangrampur *tehsil* of Buldhana district in the State of Maharashtra. The nearest town is Shegaon at a distance of 20 kilometres from the village and is connected by road. The village do not have a Primary Health Centre (PHC) or any other medical facilities.

2. Population and demographic features

During 2007 PARI survey, there were 250 households in the village with a population of 1308 persons. The female to male sex ratio (number of females per 100 males) was 99. There were 130 children in the village belonging to the age group of equal to or less than five.

3. Literacy levels

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¹⁰ National Statistical Commission (2001) emphasize that 'the employment of these surveys [National Sample Surveys] as an alternative system to the failing Administrative Statistical System will divert attention from the solution of the real systemic problem of the decentralised Indian Statistical System.' (Para 14.3.17)

¹¹ National Statistical Commission (2001) suggests that 'for the variables, on which the data are not compiled and updated periodically based on regular administrative records or frequent sample surveys, but data on which are necessary for planning at district and lower levels, attempt should be made to estimate them through the use of small area estimation techniques, since the present large scale sample surveys usually provide estimates of various parameters only at State and National levels.' (Para 9.2.22) As for the small area estimation techniques, see Rao, J. N. K. (2003).

There is a primary school and a middle school in the village which gives education up to class 7. The literacy level of the population of age seven years and above during 2007 was 74 per cent, with a male literacy rate of 83 per cent and female literacy rate of 66 per cent.

Table 1 Literacy rates among children of the	age group 7 and above, W	arwat Khanderao v	illage, 2007
Item	Male	Female	All
Number of persons	570	572	1142
Number of literates	475	375	850
Literacy rates	83	66	74

Source: Survey data, 2007.

4. Occupational structure

The village is primarily dependent on agriculture with 63 per cent of the work force dependent on agriculture for their livelihood. Among them, 52 per cent were cultivators and 11 per cent were agricultural labourers. The share of non-agricultural labourers and salaried employees were very negligible.

Table 2 Occupational pattern of the population of the age group 15 to 60 in Warwat Khanderao, May 2007

Category	Male	Female	All	Share
Cultivator	258	197	455	52
Agricultural labourer	35	64	99	11
Non-agricultural labourers and other manual workers	16	2	18	2
Driver	9	0	9	1
Teacher	3	0	3	0
Student	49	35	84	10
Supervisor	3	3	6	1
Technical services	8	0	8	1
Small shops (including hotel, saloon)	17	4	21	2
Fisherman	1	0	1	0
Personal services	1	0	1	0
Business	2	1	3	0
Artisans	2	0	2	0
Professionals and private salaried jobs	7	0	7	1
Government servant	10	2	12	1
Domestic work	0	125	125	14
Others	12	5	17	2
Total	433	438	871	100

Source: Survey data, 2007

The major crop cultivated during 2007 was cotton (Gossypium spp.). Other crops like ground nut (Arachis hypogea), sunflower (Helianthus annus), green gram (Vigna radiata), sesamum (Sesamum indicum), jowar (Sorghum bicolor), maize (Zea mays), pulses, wheat (Triticum spp.), red gram (Cajanus cajan) and black gram (Vigna mungo) were also cultivated, but had a very small acreage in the total gross cropped area. Cotton was cultivated in the kharif season from June-July to October-November and was intercropped mainly with green gram and red gram. A few cultivators raised wheat, during the rabi season from November-December to February. There was no irrigation facility in the village, and cultivation is mainly rain fed. However, few cultivators used bore-wells for irrigating the crop.

4. METHODOLOGY AND DATABASE

We have information about all the children of a particular age group in the village, the birth records at the local level (Gram Panchayath) can be compared with them. The village has been surveyed by the Project on Agrarian Relations in India (PARI) during May 2007. This was a census type survey covering all the households in the village. We had the detailed demographic data on all the members of the households in the village including children.

1) Birth registers of the CRS at the village

From among the households we identified children belonging to the age group less than or equal to five in the PARI datbase. All these children might have been born during the period between 2002 and 2007. We visited the Gram Panchayat and obtained the CRS documents for the years from 2002 to 2007 and made a list of children, their parents and the date of registration. This was then compared with the list of children in the PARI database. We have examined discrepancies between these two data sets, considering social context of village as well as technical and administrative issues about the discrepancies. Furthermore, we conduct ed an interview with households having children that were born in the years from 2002 to 2007 and not present in CRS but present in PARI database.

2) Birth registers maintained by Anganwadi workers at the village

We met the Anganwadi worker of the same village and obtained the registers maintained by Anganwadi workers for the years from January 2006 to December 2007 and made a list of children, their parents and the date of registration. This was then compared with the list of children in the PARI database. We have examined discrepancies between these two data sets,

considering social context of village as well as technical and administrative issues about the discrepancies.

Finally we compared and assessed the status of these two types of birth records.

5. RESULTS

In the PARI database based on survey conducted in 2007, there were 130 children belonging to the age group less than or equal to five. We collected the details of birth registered under the CRS in the Gram Panchayath for the period from 2002 to May 2007. The comparison of the CRS register and PARI database revealed that there are mainly four cases emerging out of it. We will discuss the results emerging out of the comparison of the two data bases case by case. They are the following

Case 1: Children present in both CRS and PARI database

Case 2: Children present in CRS but not in PARI data base

Case 3: Children not present in CRS but present in PARI database

Case 4: Children not present in either CRS or PARI database

Table 3 Details of registration of children of age group less than or equal to five, Warwat Khanderao village

Category	Number
Children present in both CRS and PARI database	29
Children present in CRS but not in PARI data base	44
Children not present in CRS but present in PARI database	101
Children not present in either CRS or PARI database	Don't know
All children	130

Case 1: Children present in both CRS and PARI database

Out of 130 children of age group less than or equal to five, 29 children of different age group were registered under the CRS in the Gram Panchayat. Thus these 29 children were common in both the CRS and PARI database. This point to the fact that during the last five years only 22 per cent of the total children, who were borne to parents resident in the village were registered under the CRS in the Gram Panchayat of Warwat

Khanderao. The remaining 78 per cent of the children were either registered elsewhere or not registered under the CRS in Warwat Khanderao Gram Panchayat.

Case 2: Children present in CRS but not in PARI data base

There were 44 children whose name were present in CRS of Gram Panchayat of Warwat Khanderao, but absent in PARI database. This was because of four major reasons.

- 1) Out of 44 children belonging to Case 2, 25 cases were such that their mother who got married to men resident in other villages, came to Warwat Khanderao for delivery. After delivery, as per rule the registration of birth should be made within 21 days. Hence though not permanent resident of the village, they registered with the CRS in Warwat Khanderao and got the birth certificate issued from this village.
- 2) In the case of eleven children, they were not covered by the PARI survey as they have either migrated to other places for work, went to their native villages at the time of survey, or were temporarily out of the village for medical treatment or other purposes.
- 3) There were three cases in which though the household was covered under the PARI survey, child's name was not recorded.
- 4) In four cases, the household itself was not covered under the PARI survey.
- 5) In one case, the name of the child recorded in the PARI database was different as the parents have given the nick name of the child, instead of the formal name given in the birth certificate.
- 6) Apart from above mentioned cases we also found that there has been minor changes in the composition of households as families either join together or separate resulting in reduction or increase in the number of households. This poses some difficulty in cross checking the CRS data and the PARI database. We overcame this problem with the help of the *Sarpanch* who was knowledgeable about all the members in households belonging to the village.

Case 3: Children not present in CRS but present in PARI database

There were 101 children belonging to this category, out of which 82 (81 per cent of total children less than or equal to age five) were borne outside the village and have registered

the birth with the CRS in the village or the local body where the birth had taken place. 18 children (14 per cent of total children less than or equal to age five) were not registered, and one household has migrated out of the village after child birth and we could not verify whether they have registered the birth of the child. There are two major issues with respect to CRS that emerge out of this category of children. The first is that birth of majority of the children in Warwat Khanderao gets recorded in the CRS outside the village. The second feature is that the proportion of children whose birth was not registered was 14 per cent which is not very substantial. This point to the fact that information from the CRS of a particular village cannot be used as the basis for obtaining demographic features of children needed for local level planning. This undermines the use of CRS as a source of information for planning at the grass root level.

Case 4: Children not present in either CRS or PARI database

The children belonging to this category cannot be identified with the existing levels of information available in the two village level databases and hence will remain unaccountable.

A detailed analysis of the socio-economic characteristics of the discrepancies

A detailed analysis of the socio-economic characteristics of households in which the birth of child was not registered (see Table 4) reveals the following facts.

- a) Among the 18 children whose birth was not registered, nine were male children and nine were females.
- b) The literacy status of the mother of these children shows that mothers of nine of the unregistered children were illiterate. However, only two children had father who was illiterate.
- c) Majority of the unregistered children belonged to the weaker sections. Eleven out of 18 children were Muslims, followed by Kunbi (3 children), Budhist, Maratha and Beldar (one child each).
- d) Majority of the unregistered children belonged to peasants (eight children) and agricultural labourers (three children).

Table 5 Caste status of father of those children who were not registered	d with the CRS, Warwat
Khanderao village	
Muslim	11
Kunbi (OBC)	3
Buddhist	1
Maratha	2
Beldar	1
All children	18

Table 6 Occupational status of father of those children who we	ere not registered with the CRS,
Warwat Khanderao village	<u> </u>
Peasant	8
Agricultural labourer	3
Tractor driver	1
Auto driver	1
Mason	1
Teacher	3
Supervisor	1
All children	18

Anganwadi register

In Warwat Khanderao, we found that during 2006, 22 births were recorded by the Anganwadi worker. Out of this 22 children, two died after the birth and hence the total children was 20. Out of this 20 children, only 12 cases can be matched to the children recorded in the PARI database. However the number of children born during 2006 according to the PARI survey data was 27. Therefore the information from Anganwadi register may cover more children living within the village than the CRS data, but its quality remains as a matter to be disscussed further 12. It calls for further investigation.

6. DISCUSSION

6-1. Birth records in the CRS

In India, civil registration was first introduced in the last century mainly as an aid to public health administration. However, registration was kept voluntary and different provinces had different legislations and there was no standardisation of concepts, definitions and classifications. Various Commissions and Committees have reviewed the civil

¹² Our assessment of the IDCS register in Bidyanidhi village in Raina I Block, Barddhaman District in West Bengal.shows how high quality data are generated and maintained by Anganwadi workers there.

registration based vital statistics system in the past. The enactment of the 'Registration of Births and Deaths (RBD) Act, 1969' replacing all diverse laws that existed on the subject, and the Model Rules framed under the Act introduced a uniform piece of legislation to overcome the problems of multiplicity of Acts and Rules that existed in the country. The Act provides for compulsory registration of births and deaths in the country.

The RBD Act has provided for a hierarchical set-up for the registration machinery in the country, headed by the Registrar General of India at the Centre. There are District Registrars in the districts and Registrars and Sub-registrars for registering births and deaths occurring in the area allotted to them within a district. As for the village Warwat Khanderao, the Gram Sevak, the Panchayat Secretary employed by the State government, concurrently serves as a Registrar.

The National Statistical Commission points out, however, that the Civil Registration System is deficient and suffers from poor coverage and quality in registration. As Table 7 indicates, only 55 per cent of the births were estimated to have been registered during the year in India as a whole, though the levels of registration vary widely across the States. The estimate is based on the Sample Registration System as a means of validating the coverage of the CRS. The level of birth registration estimated for 1995 was 80.3 per cent, whereas 85.4 per cent [(29+82)/130] of the births of total children less than or equal to age five in PARI database had been registered in the CRS at the village or elsewhere outside the village. This percentage may be rather acceptable, allowing for some improvement in the CRS for 12 years.

The percentage of unregistered cases (13.8 per cent) is not yet so small. The Registrar General, India (1999) pointed out lack of awareness about registration in general public about the statutory requirement to register as one of the reasons for under-registration. The Registrar General, India (1999) also pointed out that there is general apathy of the public in rural areas and in low income groups, as no personal benefits are perceived from registration (p. 23). In fact, majority of the unregistered children living in Warwat Khanderao belonged to the weaker sections. There are many administrative and management factors responsible for this poor registration. A parent of unregistered child told that Gram Sevak (the Registrar) is not at the Panchayat office everyday. He doubles as the Gram Sevak of another village. The Gram Sevak suggested that the CRS should cover nearly 100 per cent of the births of total children at the village, because birth certificates should be required for the school admissions.

But primary school teachers in the same village witnessed that they accept the birth certificates of the CRS for, say, only 10% of school enrollments. These facts suggested us that there are some administrative problems of coordination, monitoring and supervision, which affect the quality of the CRS data.(9.3.29)

However, the major fact that emerge out of this study of CRS in the village of Warwat Khanderao is, that even if we assume 100 per cent registration, it gives information only about the births occurring within the village, whereas in majority the cases parents go to their native villages or go for institutional delivery at the nearest town. Out of 130 children of age less than or equal to five in 2007 in PARI database, only 22.3 per cent of total children [29/130] were registered under the CRS at the Gram Panchayat in Warwat Khanderao.

Table 8 Details of registration of children of age less than or equal to five, Warwat Khanderao village, May 2007

Category	per cent
Registered births in the CRS at Warwat Khanderao or elsewhere	85.4
Registered births in the CRS at Warwat Khanderao	(22.3)
Registered births in the CRS elsewhere outside Warwat Khanderao	(63.1)
Unregistered births in the CRS neither at Warwat Khanderao nor elsewhere	13.8
Other	0.8
All children less than or equal to age five appeared in PARI database for 2007 (130 children)	100.0

As shown in Table 8, 63.1 per cent of total children [82/130] were not registered at the Gram Panchayat in Warwat Khanderao but registered at the other Gram Panchayats or the local bodies outside Warwat Khanderao. Therefore the majority of registered children of age less than or equal to five in PARI database were registered outside Warwat Khanderao. Those children were either born at certain medical facilities outside the village; or their mothers temporary returned for delivery to her natural parents' places outside the village and their births were registered there. We found that almost all the institutional births were recorded as demanded by the law. However, there is no medical facilities in Warwat Khanderao. They have to go to medical facilities located in neighboring town. Moreover, there is a custom in Maharashtra that mother returns to her natural parents' for her first delivery. On the contrary, the registers in CRS at the Gram Panchayat in Warwat Khanderao

include 25 children that are registered here because their mothers who got married to men resident in other villages, came temporally to Warwat Khanderao for delivery. Thus the information from CRS of a particular village is of less use for the purpose of obtaining demographic features of children needed for local level planning, as it cannot cover the birth of all children resident to this village.

6-2. Birth records maintained by the Anganwadi worker

Anganwadi is a child-care and mother-care center in India started in India in 1975 as part of the Integrated Child Development Services program with financial and technical assistance from the UNICEF and the World Bank. The Anganwadi offers supplementary feeding facilities for children in the 0-6 age group, pregnant women and lactating mother, pre-school facilities for children aged three to six, maternal and child health care services like immunization and vitamin supplements and nutrition and health education for mothers. At present, there is a single Anganwadi for Warwat Khanderao village. Anganwadi workers at the village are maintaining registers and records containing details of population, birth and death, pregnant woman, immunization of childlen, etc. in collaboration with the Auxiliary Nurse Midwife (ANM).

The High Level Expert Committee on Basic Statistics for Local Level Development has suggested that registers maintained by the Anganwadi workers have the potential to provide a basis for the village level database for local level development [Government of India (2006), p.17]. We found that the Anganwadi birth register is intended to cover births of all children inhabited this village, so it is, indeed, very useful for the basis for planning health and family welfare programmes at the village level.

However, with regard to quality of Anganwadi registers, the result of this study leaves room for further investigation. In Warwat Khanderao, we found that during 2006, 22 births were recorded by the Anganwadi worker, whereas the number of children born during 2006 according to the PARI survey data was 27. We have not yet succeeded in matching these two dataset. Therefore the information from Anganwadi register in Warwat Khanderao seems to cover more children living within the village than the CRS data, but its quality remains as a matter to be disscussed further. According to the pilot study at villages in Maharashtra conducted by the High Level Committee, there is no formal data sharing mechanisms between different agencies working at Gram Panchayat, Tehsil or District levels

[Government of India (2006), p.25]. In fact, in Warwat Khanderao the Anganwadi registers was no concern of the Gram Sevak. Moreover, the Anganwadi workers are not duly degarded by the government, so public debates on their working conditions are ongoing.

7. CONCLUSION

In order to assess the village level-birth records for use in local level development, we have conducted a micro level discrepancy analysis, comparing each and every birth event recorded in the administrative records in Warwat Khanderao with the corresponding person in the PARI's census type data. The major findings of our investigation are as follows.

- **A.** 14 per cent of total 130 children of age less than or equal to five in PARI database for 2007 are unregistered in the CRS. Majority of the unregistered children belonged to the weaker sections.
- **B.** The level of birth registration in the CRS is improving. 85.4 per cent of the births of total 130 children less than or equal to age five appeared in PARI database for 2007 had been registered in the CRS in Warwat Khanderao or elsewhere outside Warwat Khanderao.
- C. However, we found the information from CRS of villages like Warwat Khanderao may be of less use for the purpose of local level planning as it cannot cover the birth in all the households in the village. Even if we assume 100 per cent registration, it gives information only about the births occurring within the village. The majority of registered children of age less than or equal to five in PARI database were registered outside Warwat Khanderao. 63.1 per cent of total 130 children were not registered at the Gram Panchayat in Warwat Khanderao but registered at the other Gram Panchayats or Municipalities outside Warwat Khanderao. The children in this case were either born at certain medical facilities outside the village; or their mothers temporary returned for delivery to her natural parents' places outside the village and their births were registered there. Only 22.3 per cent of total 130 children of age less than or equal to five in PARI database for 2007 were registered under the CRS at the Gram Panchayat in Warwat Khanderao. If we take up some aggregate numbers on the level of birth registration for Buldhana district or Maharashtra, the situation may look better. But the level of birth registration for villagers living now in a particular village like Warwat Khanderao can be rather low.

D. The register maintained by the Anganwadi workers may have the potential to provide a basis for the village level database for local level development, because it is intended to cover births of all children growing and living this village. Therefore the information from Anganwadi register seems to cover more children living within the village than the CRS data. But its quality may be still incomplete.

The micro level picture on the situation around the birth records at a village was, as for some aspects, different from a macro level view based on the Sample Registration System. We found a difficulty in use of the CRS for the purpose of local level planning. Certain systematic changes may be required for the CRS to meet increasing requirement and demand for decentralised databases for purposes of micro level planning in development programmes. We also found the potential of a village level record like the Anganwadi registers in the course of our village survey. Although the National Statistical Commission (2001) points out the deterioration of the Indian Administrative Statistical System especially at its very roots namely, at the very first stage of collection and recording of data (Para 14.3.10), another type of village level record with much potential emerged out of our village.

Village-level birth records in the CRS records available at the Gram Panchayat may not be so useful for village studies. The Anganwadi birth register has the potential for our village studies, but it calls for further investigation.

REFERENCES

Registrar General, India, Vital Statistics of India 1994 based on the Civil Registration System, New Delhi, 1996.

Registrar General, India, Handbook of Civil Registration, fourth edition, New Delhi, 1998.

Registrar General, India, Compendium of India's Fertility and Mortality Indicators 1971-1997 based on the Sample Registration System (SRS), New Delhi, 1999a.

Registrar General, India, Registrar General's Report on Working of the Registration of Births & Deaths Act, 1969, (for the year 1996), New Delhi, 1999b.

Registrar General, India, Registrar's Manual on Registration of Births and Deaths (Draft), New Delhi, 2001.

United Nations, Department of Economic and Social Affairs Statistics Division, *Principles and Recommendations for a Vital Statistics System, Revision 2*, ST/ESA/STAT/SER.M/19/Rev.2, United Nations Publication, 2001.

National Statistical Commission, Report of National Statistical Commission, 2001 (http://mospi.gov.in/nscr/hp.htm)

Government of India Ministry of Statistics and Programme Implementation Social Statistics Division Central Statistical Organisation, Report of High Level Expert Committee on Basic Statistics for Local Level Development, 2006

Okabe, J., Wide Variations in Statistical Data Sets on the Same Subjects: Reconsidering the Report of the Indian National Statistical Commission, Occasional Paper, No.9, Japan Statistics Research Institute: Hosei University, 2004, p21

Mayr, Georg von, Statistik und Gesellschaftslehre. Bd. Theoretische Statistik, 2 Aufl., Paul Siebeck, Tübingen, 1914

Thygesen, Lars The Register-Based System of Demographic and Social Statistics in Denmark—An Overview; Statistical Journal of the UNECE, v. 12, Issue 1.,1995

Bloem, A., and Shrestha, M. L., Comprehensive Measures of GDP and the Unrecorded Economy, IMF Working Paper WP/00/204, International Monetary Fund, 2000.

OECD, Measuring the Non-Observed Economy: A Handbook, OECD, 2002.

Conference of European Statisticians, Report of the December 2002 Joint UNECE—Eurostat Work Session on Registers and Administrative Records for Social and Demographic Statistics, 2003 (http://unece.org/stats/documents/2002.12.registers.htm).

Hoffmann, Eivind, We Must Use Administrative Data for Official Statistics—But How Should We Use Them?, *Statistical Journal of the UNECE*, v. 12, Issue 1., 1995.

The Society of Economic Statistics, Japan, Social Statistics as a Social Science: the 50th Anniversary Special Issue(in Japanese), *Statistics*, No. 90, Sangyo Tokei Kenkyusya, 2006

Rao, J. N. K., Small Area Estimation, Wiley, 2003

Table	Table 4 List of unregistered children of age group less than or equal to five, Warwat Khanderao village							
No	Sex	Age	Caste/Trib e	SC/ST/ OBC	Literacy status of father	Literacy status of mother	Occupatio n of father	Occupation of mother
1	F	5	Muslim		Literate	Illiterate	Teacher	Housewife
2	M	6 months	Muslim		Literate	Illiterate	Teacher	Housewife
3	M	36 months	Muslim		Literate	Illiterate	Teacher	Housewife
4	F	5	Muslim		Literate	Illiterate	Peasant	Housewife
5	F	48 months	Buddhist	SC	Illiterate	Illiterate	Agricultural labourer	Agricultural labourer
6	F	24 months	Kunbi	OBC	Literate	Illiterate	Tractor driver	Agricultural labourer
7	F	5	Maratha		Literate	Literate	Peasant	Peasant
8	F	5	Muslim		Literate	Literate	Peasant	Housewife
10	M	5	Kunbi	OBC	Literate	Literate	Peasant	Peasant
11	M	5	Kunbi	OBC	Literate	Literate	Peasant	Peasant
12	M	5	Muslim		Literate	Literate	Auto driver	Housewife
13	M	48 months	Muslim		Literate	Illiterate	Agricultural labourer	Agricultural labourer
14	M	36 months	Muslim		Literate	Literate	Peasant	Peasant
15	M	5	Maratha		Literate	Literate	Peasant	Peasant
16	M	24 months	Muslim		Illiterate	Illiterate	Agricultural labourer	Agricultural labourer
17	F	36 months	Muslim		Literate	Literate	Mason	Housewife
18	F	11 months	Beldar		Literate	Literate	Peasant	Peasant
19	F	5	Muslim		Literate	Literate	Supervisor	Housewife

Source: Survey data, 2007.

India/State/Union Territory	Level of Birth Registration		Level of Death Registration	
	1985	1995	1985	1995
India	39.0	55.0	32.7	46.0
	Stat	es		
Andhra Pradesh	26.9	34.4	21.1	30.5
Arunachal Pradesh	19.7	66.3	13.4	21.2
Assam	N. A.	N. A.	N. A.	N. A.
Bihar	20.0	18.7	22.5	25.6
Goa	105.2	120.6	86.5	111.9
Gujarat	62.1	96.3	40.3	69.0
Haryana	60.8	73.4	58.2	70.6
Himachal Pradesh	57.9	71.7	37.4	50.2
Jammu & Kashmir	46.4	N. R.	51.7	N. A.

86.5

101.7

50.8

80.3

14.0

44.5

N.R.

N.R.

58.6

92.4

23.7

24.4

90.3

108.9

42.3

78.7

44.8

66.8

5.9

N. A.

N. A.

49.8

40.8

75.7

17.8

N. A.

55.1

18.5

86.9

86.1

53.3

69.1

16.0

52.7

N. A.

N. A.

47.0

84.3

27.3

8.6 75.5

46.0

40.4

94.8

46.3

64.7

7.5

N. A.

N.R.

60.9

47.6

74.2

16.4

N. A.

67.7

41.7

Table 7 Level of Births and Deaths Registration during 1985-1995

Uttar Pradesh	13.6	40.6	7.7	31.1	
West Bengal	N. A.	64.3	N. A.	27.4	
	Union Te	rritories			
Andaman & Nicobar Islands	73.3	128.1	52.8	88.7	
Chandigarh	112.7	126.6	213.9	205.1	
Dadra & Nagar Haveli	48.6	85.9	50.8	66.1	
Daman & Diu	96.4	148.7	46.1	92.2	
Delhi	85.3	116.0	83.0	110.6	
Lakshadweep	93.7	86.5	96.7	73.0	
Pondicherry	182.9	198.8	132.7	131.5	

Source: Registrar General, India. For the details, see Registrar General, India. Handbook of Civil Registration. 4th ed, 1998

Notes: 1. The level of birth/death registration is the percentage of registered births/deaths to the SRS estimated births/deaths

NA: Annual Statistical Report is not available.

NR: SRS data is not available

Karnataka

Madhya Pradesh

Maharashtra

Manipur

Meghalaya

Mizoram

Nagaland

Orissa

Punjab

Sikkim

Tripura

Rajasthan

Tamil Nadu

Kerala

NC: Not calculated due to non-availability of data from major states.

^{2.} The level of registration exceeds 100% in these States/UTs because the people from the neighbouring areas outside these States/UTs come here to avail of better medical facilities and due to the de facto method of registration all such births get registered in these States/UTs. In SRS such births are accounted at the place of usual residences of the mother.

APPENDIX

Form of the Birth Register (translated into English)

FORM NO.1 BIRTH REPORT Legal information This part to be added to the Birth Register	BIRTH REPORT Statistical information This part to be described and was for notational accounts.	In the case of multiple births, fill in a separate form for each child and write "Twin birth" or Triple birth 'etc, as the case may be, in the remarks column in the box below left.
To be filled by the informan! To be filled by the informan! 1. Date of Birth: (Enter the exact day, month and year the child was born e.g. 1-1-2000) 2. Sex: (Enter male or "female"; do not use abbreviation) 3. Name of the child, If any: (If not named, leave blank) 4. Name of the father: (Full name as usually written) 5. Name of the mother: (Full name as usually written) 6. Place of birth: (Tick the appropriate entry 1 or 2, below and give the name of the Hospital/Institution or the address of the house where the birth took place) 1. Hospital/ Name: Institution 2. House Address: After completing all columns 1 to 20, informant welf.	This part to be detached and zent for statistical processing To be filled by the informant 8. Town or Village of Residence of the mother: (Place where the mother usually, lives. This can be different from the place where the delivery occurred. The house address is not required to be entered.) a) Name of Town/Village: b) Is it a town or village: (Tick the appropriate entry below) 1. Town 2. Village c) Name of District: d) Name of State: 9. Religion of the Familty: (Tick the appropriate entry below) 1. Hindu 2. Muslim 3. Christian 4. Any other religion: (write name of the religion) 10. Father's level of education: (Enter the completed level of education e.g. if studied uplo class VII but passed only class VI, write class VI) Mother's level of education: (Enter the completed level of education e.g. if studied uplo class VII but passed only class VI, write class VI) 11. Mother's level of education: (Enter the completed level of education e.g. if studied uplo class VII but passed only class VI, write class VI) 12. Father's occupation:	years) at the time of marriage : (If married more than once, age at lirst marriage may be entered) 15. Age of the mother (in completed ages) at the time of this high.
pul dale and	(If no occupation write 'Nil')	19. Birth Weight (In kgs.) (if available) :
signature here:) Date: Signature or left thumb mark of the informant	13. Mother's occupation : (If no occupation write 'Nil')	20. Duration of pregnancy (in weeks): (Columns to be filled are over. Now put signature at left)
To be filled by the Registrar	To be filled by	the Registrar
Registration No.: Registration Date: Registration Unit: Town/Mage: District: Remarks: (if any)	Name Code No. Res District : Dat Tahsil : Sex	plantation No. ; Registration Date ; e of Birth ; c: 1.Male 2.Female ce of Birth : 1.Hospital/Institution 2.House
Name and Signature of the Registrar	NAMES OF THE PARTY	Name and Signature of the Registra

Source: Registrar General, India (2001).