Female Infanticide in Tamil Nadu, India : From Recognition Back to Denial?

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Female infanticide in Tamil Nadu, South India, has recently received widespread attention within India and abroad. The paper contains reflections based on over a decade of fieldwork and study of this phenomenon, and information gathered from NG0s, activists and officials. It discusses the recent history of the practice of female infanticide, and the circumstances, which forced the state government in 1992 to acknowledge its existence. Activities to prevent female infanticide, such as the 'Girl Child Protection Scheme' and coercive actions against those committing female infanticide, by the state government and non-governmental organizations are critically reviewed. The unwantedness of girl children manifests itself not only in female infanticide, but also in selective abortion of female fetuses and neglect of girl children, leading to excess female child mortality. Prevention and eradication of female infanticide calls for sustained and long-term efforts to ameliorate the subordinate status of women. Under the circumstances, the tendency of several governments to deny, the phenomenon, remain silent about it, or engage in interventions which stand little chance of succeeding, is cause for concern.

DELIBERATE discrimination against girl children takes several forms: nutritional denial such as inadequate breastfeeding and early weaning; insufficient or delayed medical care; lack of attention, causing emotional deprivation; and insufficient investment in resources. All these have been documented as leading to excess mortality in the female child. Excess female child mortality has been reported mainly from South Asian countries. [1]

Another manifestation of gender discrimination against girl children is sex-specific abortion of female fetuses. In countries like China, South Korea and among the South Asian Diaspora in Britain, USA and Canada, abortion of female fetuses has been prevalent for over 15 years. [2] During the late 1970s, cases of abortion of female fetuses were reported from many of the major cities of India. [3], [4] The practice continues to this day, with the more invasive techniques of sex determination, such as amniocentesis and chorionic villus sampling, replaced by ultrasonography. In the 1980s, not only the Indian media, but also India Abroad, the largest circulating Indian news weekly in North America, carried advertisements for clinics offering fetal sex determination. [5] This served to popularise these techniques and make them widely known. In the states of Punjab and Haryana in northwestern India, there are today mobile ultrasound

units, which regularly visit rural areas. Abortion of female fetuses is no longer an urban phenomenon in those parts of India. [6]

This paper focuses on the practice oil female infanticide in recent years in Tamil Nadu, South India. Female infanticide - the deliberate killing of female infants soon after birth - is a much rarer phenomenon than neglect of girl children and sex-selective abortion. The practice was common in China in the past and although it was thought to have been largely eradicated after the Communist revolution, in recent years there have again been reports of female infanticide in China, following the adoption of the 'one-child' policy. [7] Among the immigrant Punjabi community in Canada, occasional cases of female infanticide are reported every few years, in addition to sex-selective abortions. [8]

Unlike excess female child mortality caused by deliberate neglect, female infanticide in India is very poorly documented, and deserves more attention. There are no good data on the number of cases of female infanticide in India. A rough estimate of sex-specific abortions and female infanticide together has been obtained by using indirect demographic techniques on census data, indicating that there have been about 1.2 million `missing girls' in India during the decade 1981-1991. [9] This constitutes less than one percent of all girls born. Another 4 million girls who died prematurely in the first four to six years of life represent a further source of excess female mortality.

My first encounter with the practice of female infanticide was accidental. I had never even dreamt of its existence when I was planning a four-year prospective nutrition research project in 12 villages in north Tamil Nadu on improving the growth of children of pre-school age. It was when I started working in those villages in 1986 that I came across instances of female infanticide. Every two to three months a case was reported among the 13,000 study population. When I brought these to the attention of social scientists and demographers, most refused to take my observations seriously. Despite official recognition of the existence of the practice in 1992 by the state government, my subsequent efforts to document how widespread the practice is geographically in Tamil Nadu have continued to be a struggle.

Dimensions of the Problem

The current practice of female infanticide in Tamil Nadu has become much more widely acknowledged in recent years. [1], [10] [12] As late as 1989, Indian demographers were claiming that female infanticide did not occur in South

India. [13] A few non-governmental organizations (NG0s) and others have also maintained that this is only a recent social phenomenon in Tamil Nadu. [14]

However, the fact that during the 19th century the British reported the existence of female infanticide in Tamil Nadu among certain communities, for example, the Kallars and the Todas, suggests the plausibility of a long history of the practice. [11], [15] In discussions I had with rural communities, including in the districts of undivided North Arcot, Madurai and Salem, people revealed that the practice has been around for about 50 years. There were also people who asserted that the practice has continued for several generations. The most surprising aspect about female infanticide is that the traditional methods of killing are remarkably similar whether in north, central or south Tamil Nadu. For instance, paddy (rice with its husk) soaked in milk or the poisonous sap of the calotropis plant are used. How could villagers spread over 700 kilometres have possessed the same knowledge in the absence of major migration over these distances? It is unlikely to have been coincidental. Probably, the knowledge has been handed down over several generations.

Claims that there has been a recent, rapid spread of female infanticide may reflect the increasing awareness of NG0s to this sensitive issue and may also be influenced by the fact that funds have been earmarked for this issue. Several NGOs have acknowledged that they have known of this practice for 10 years or longer but said they did not dare to recognise it until the 1990s, to avoid incurring the displeasure of the communities they work with. All this suggests that female infanticide has been practised in different parts of rural Tamil Nadu, unnoticed by outsiders, for many decades. Indirect demographic evidence suggests that the practice has increased over the last 20 years.

Female infanticide in Tamil Nadu in this century was first highlighted in the national media in 1985 by the leading newsmagazine India Today [16] which reported the existence of the practice in Usilampatti, Madurai district, southern Tamil Nadu. Female, infanticide was primarily prevalent among Kallars, the dominant caste of this area. This report shocked the general public because women in Tamil Nadu are known to be better educated and to have a greater degree of autonomy than their counterparts in northern India. [17]

During 1986-90, I undertook a prospective study of female infanticide in 12 villages in north Tamil Nadu while involved in a major health education project to improve the survival and growth of pre-school children. [15], [18] I found that about 10 percent of newborn girls in six of the 12 villages were victims of female

infanticide; all of them had been from landed families. Over 90 percent of these deaths were among Vanniars, the dominant caste in the region. Virtually the entire excess of female deaths in the six villages occurred during the early neo-natal period (first seven days of life), when female infanticide is most commonly carried out. However, in all 12 villages the sex ratio of children of higher birth order was similar, and unfavourable to girls. This points to other causes of excess female child mortality, including in the six villages where there was no evidence of female infanticide.

From 1990 onwards, anecdotal reports of female infanticide in Salem district in central Tamil Nadu were published, initially in the Tamil media and later in the English language newspapers. [10] A 1arge proportion of the practice occurred, among the Kongu Vellala Gounders, the dominant caste, of that area. A 1995 study of 1320 newly delivered women in Salem district found that the number of girls who died in the early neo-natal period (25) was three times that of boys (9); a statistically significant difference. The risk was even more pronounced among girls born to multiparou women without living sons. [19] In the light of other supporting evidence from this district, there is a distinct possibility that female infanticide underlies this differential risk of early neo-natal death among girls.

Following my own visits to villages in many Tamil districts in 1994-95 and based on field reports of local NG0s, I concluded in mid-1995 that female infanticide was occurring in many parts of Tamil Nadu and not just in the selected pockets identified. [20] Recent analysis of the 1991 census data, vital statistics collected by the primary health centers (PHCs), and a Tamil Nadu Directorate of Public Health survey, all provide Quantitative confirmation of these observations. [17], [21] These data revealed that female infanticide is prevalent in several districts of the state and among many castes, down to the lowest in the caste hierarchy. Athreya and Chunkath [22] estimate that 8 to 10 percent of all infant deaths in 1995 could have been due to female infanticide. The published PHC data indicates a sex ratio at birth of only 900-920 girls per 1000 boys in several districts. [21] This is at least partly due to non-reporting of the deaths of newborn girls who died in the early neo-natal period.

Most of the killings of infant girls are committed by a senior woman in the family, usually the paternal grandmother, and in a few areas by traditional birth attendants. Up to 80-90 percent of victims of female infanticide are girls of higher birth order (possibly greater than 2). [21], [23] The greatest risk of neglect of girls who survive is also among girls of high birth order, according to studies in North India, Pakistan and Bangladesh. [24]-[26] In rural Tamil Nadu I have seen many parents who do not even try to hide their contempt for girls of higher birth

orders, naming them Venda (don't want) or Podum Pennu (enough of daughters).

Causes of Female Infanticide

While many hypotheses have been put forth the understanding of causes of female infanticide has been the weakest link in scholarly work in Tamil Nadu. As Harris-White points out, 'the terrain of theory is quite rich, while the actual evidence is poor. [17] All of the following factors have been mentioned as responsible for the increase in the incidence of female infanticide: the low status of women, decreasing fertility an consequent intensification of son preference, spread of the practice of dowry across all caste groups, the green revolution and the resulting marginalisation of women in agriculture, and a shift to cash cropping. [11], [17], [27], [28]

That decreasing fertility can lead to intensification of gender discrimination has been observed in many patriarchal societies the world over. This is because the number of sons wanted declines much more slowly then the desired total number of children. Both the green revolution and cash crop agriculture, unlike traditional subsistence agriculture are intimately linked to large district, state, national and even global markets for various kinds of inputs and produce. Women become marginalised in these transactions. Further, this scale of marketisation results in the accumulation of large amounts of money in the hands of a few privileged farmers and traders in the villages. This extra cash is spent on ostentatious marriages and for dowries. Then, there is pressure for these new norms to be emulated by others in the society.

Yet there has been no systematic exploration of the reasons why discrimination manifests itself as female infanticide in a widespread way only in some communities and some regions of the state. People in several rural communities I have visited in the districts of Madurai, Salem and North Arcot justify the practice on the grounds that the urban elite can terminate female fetuses because they have access to ultrasound scanning without state interference. However, there is recent evidence that the numbers of clinics with ultrasound facilities for sex determination and abortion are on the increase in small towns such as Tiruppattur in North Arcot, Usilampatti in Madurai and others in Salem. [29]

Government Responses

When the leading newsmagazine *India Today* exposed female infanticide in Usilampatti in 1986, the then government asserted that the practice was confined only to that particular place in the state. Moreover, the government of Tamil Nadu reportedly brought false and baseless charges against the Society for Integrated Rural Development (SIRD), an NGO based in Usilampatti that was instrumental in getting the information published. This apparent form of harassment was presumably meant to discourage them from continuing to publicise the issue. [30]

In contrast, the response of the government of Tamil Nadu in 1992, under Chief Minister Ms. Jayalalitha, was different in that the existence of the practice in the state was acknowledged. [31] Earlier that year the state government had launched the 'Cradle Babies' scheme, whereby families were asked to abandon unwanted female infants in cradles provided for that purpose in government primary health centers, rather than kill them. [16] There were also arrests by district police, particularly in Salem, of some families who had committed female infanticide. The combination of media attention and police persecution led to the abandonment of a large number of babies in the cradles in Salem. [32] In 1992, 77 girls were left in cradles in the district. [33] The government gave money to some NG0s to look after the abandoned girls. Some of them died and over 20 were given up for adoption.

There were several discussions on this issue in the Indian parliament and in the legislative assembly of Tamil Nadu. Sustained coverage by the foreign news media, such as the BBC, were a source of embarrassment for the Tamil Nadu government. Following consultations with UNICEF and NG0s, the then Chief Minister Ms. Jayalalitha announced the 'Jayalalitha Protection Scheme for the Girl Child' in October 1992. [31] The goal of the scheme was the total elimination of female infanticide by the year 2000. Under its provisions, a poor family with one or two girls and no sons would be eligible for monetary incentives if one parent agreed to be sterilised. Money given in the name of the infant girl would be held in a fixed deposit account until she reached 21 years of age. Further, when the girl went to school, the family would periodically receive grants for educational expenses. This scheme was intended to cover 20,000 families every year. In Salem district 614 girls actually received this benefit over a period of eighteen months. [34] The government also committed itself to undertaking the identification of 'high risk areas' where the practice was prevalent.

In August 1997 the Indian Prime Minister has sought to emulate this scheme by announcing a similar one for the entire country. A series of financial incentives are to be made available to every poor family, which has two surviving girl children. Mercifully, the national scheme does not have the coercive condition of the 'Jayalalitha scheme' that one parent should be sterilized. Furthermore, the incentives are to be distributed by local village councils (panchayats) rather than by the state social welfare bureaucracy, as in Tamil Nadu. The opportunity costs of getting the necessary certificates and pushing paper to get the financial incentive in Tamil Nadu are substantial. Several parents from different districts who have taken advantage of the scheme have told me that the bribes paid amounted to nearly 50 percent of the total amount of incentive money itself. The direct, involvement of the panchayats may make the process less tedious and possibly reduce the transaction costs for eligible families.

The 'Cradle Baby' scheme and the 'Girl Child Protection' scheme were shrewd political moves on the part of Ex-Chief Minister Ms. Jayalalitha. These measures facilitated the building of her image as a protector of the interests of Tamil women. Recognising the popularity of these schemes, Jayalalitha periodically enhanced the incentives. [35]-[38] Her government also introduced other programmes for the improvement of women's status such as exclusively recruiting women as primary school teachers in the state, and making primary education compulsory for all children. [31]

Ironically, the same political compulsions which led the then state government to recognise the practice of female infanticide eventually appear to have led to its later denial of the practice. [33] Unattainable promises to eradicate the problem and a desire to uphold the image of the state government, as the ‘saviour of women’ appears to have become more important than taking the long-term action necessary to achieve this end.

For example, the ex-Minister for Social Welfare, Ms. Indira Kumari, the most outspoken individual in the government on female infanticide, claimed when the 'Cradle Babies' scheme was launched in early 1992 that the state would eradicate female infanticide within a year. She then reportedly made claims at meetings in 1995 that the practice in Salem district had been eradicated. Numerous NG0s working in different districts have told me that she has asked them not to report instances of female infanticide to the media, and when the media have covered incidents of female infanticide, she is said to have expressed her displeasure. These sorts of actions represent grave setbacks in the attainment of the goal of eradication of female infanticide in the state. [33]

Interventions by NG0s

A number of NG0s have been involved in a broad range of activities and programmes for the prevention and eradication of female infanticide. These may be grouped broadly as individual interventions such as:

*. reporting specific cases of female infanticide to the police in an attempt to discourage the practice,

*. counselling of an expectant mother and her family by social workers starting from the time of detection of pregnancy,

*. helping parents to get the monetary incentives offered by the Girl Child Protection Scheme,

and interventions which aim at broader social changes:

*. better childcare support to mothers through the establishment of creches and feeding programmes,

*. projects for improving women's access to education, health and economic resources, and

*. consciousness-raising for women about women's subordination in a patriarchal society.

Limitations of these Interventions

There are several problems with many of the above strategies, rendering them largely ineffective. While financial incentives for the education of girls are welcome, the problem of the state providing money that will be available when the girl is aged 21, around the time of marriage, is that it helps to legitimise the (illegal) practice of dowry. Furthermore, given the fact of limited resources, most social interventions will cover only a small segment of the needy population.

Hence, NG0s most often take up strategies focused on preventing individual cases of infanticide. The dedication of community-based groups working on the sensitive issue of female infanticide must be appreciated. Some have shown exemplary courage in continuing to work on this issue in the face of consistent displeasure and even open hostility from government functionaries and people themselves in the communities where they are working.

Yet prevention of individual cases, even when this succeeds, does not address the basic causes of women's subordination in society. Nor does it touch large segments of the community who, although they are not directly involved in killing babies, are nevertheless guilty of abetting the perpetuation of the practice in silence. Therefore, the likelihood of such strategies bringing about any lasting changes in societal attitudes towards girls is limited.

In fact, many NGO workers I have spoken with find that their pleas against female infanticide are usually ignored by the communities. Hence, they have used the tactic of threatening families who they fear may commit female infanticide with being reported to the police. Many have had no intention of acting on these threats because they also fear that actually reporting a family to the police would result in physical violence against them from the community. However, those who have reported cases to the police have had to contend with a number of unanticipated consequences.

Consequences of Reporting to the Police

Where a case of female infanticide has been reported to the police, it has not usually resulted in a successful prosecution of those who committed the crime. A senior police officer in Tamil Nadu who has willingly participated in the prosecution of families involved, acknowledged that building a strong case against them is difficult. Too often, the 'first information reports' are filed several days after the incident, and are incomplete. The chances of a successful prosecution are therefore greatly reduced and with many other crimes demanding attention, there is not much enthusiasm for taking cases of female infanticide to court.

At the village level, the police have used the threat of registering cases of female infanticide as an opportunity to extract bribes from the families concerned. [11] Several instances where local police were reportedly given bribes to cover up cases of female infanticide were brought to my attention in Madurai and Salem by local people and some NGO workers. Health officials in Salem have informed

me that there have been occasions when the local police approached them for a list of all female births, so that they could visit the families concerned and seek due favours.

One organisation which has reported cases of female infanticide to the police subsequently found that parents were reporting the deaths of female infants from natural causes, or that they had been stillborn. And in fact, there has been an increase in the reported number of female infant deaths from natural causes. [39] I have personally come across misreporting of female infanticides as stillbirths in the 12 North Arcot villages where I lived and worked for four years. In Salem district, after the police took action against female infanticide two years ago, there were instances where parents misreported that a male infant had been born and died when in fact it was a female infant, in an attempt to hide the infanticide.

Some parents have succeeded in having death certificates falsified by bribing doctors. Public health officials in Salem district have personally acknowledged to me that they do not formally report female infant deaths, owing to community pressure on local health workers.

Furthermore, a change in the method of killing infants has been observed following the exhumation of bodies to get forensic evidence when it was suspected that an infant had been a victim of infanticide. [11] People began to adopt methods such as starving the baby to death, which, unlike poisoning, leaves no forensic evidence as to the cause of death.

In their attempt to foil instances of such misreporting, NCO workers have sought the help of doctors to examine newborn girls suspected to be at risk of female infanticide, to confirm that they are healthy, thus preparing to have medical opinion ready if a case has to be filed with the police.

Families are also known to have started killing infants far away from the area where the reporting NG0s are working. Criminal prosecution of such families is not practical because it depends on the cooperation of the police in different jurisdictions. In 1994 more than ten female infanticides were committed outside the area of operation of one NGO. [40]

Long-Term Strategies: What Hope?

It is important to recognise that attempting to change the attitude of the entire population in a matter of five or ten years is totally unrealistic with the existing, limited strategies. Even so, the government can contribute to reducing female infanticide if it avoids coercive strategies, and at the very least, refrains from denying the existence of the practice and does not interfere with NCO programmes to combat it.

For NG0s, while there is no doubt that fear has prevented some cases of female infanticide in the short run, there is always a risk that this will be at a considerable cost to the relationship between NCO workers and the community. It could destroy mutual respect and trust, negatively affecting other NGO activities and any hope of making longer-term strategies work.

The lack of dependability of long-term donor support adversely affects female infanticide prevention programmes. Most prevention programmes are funded for only two to three years, and some for only one year. This is not just a problem with female infanticide, but with all donor-dependent programmes, which are at the mercy of donors' changing priorities and preferences. The short-term duration of funding encourages, if not forces, unrealistic goals on NG0s, to get support. Yet it often takes two years in the best of conditions to gain the trust of a community before a subject such as female infanticide can even be mentioned. Even then, a group may only be able to get a rough idea of the incidence of deaths and of which groups of families are more likely to commit female infanticide.

Long-term social intervention strategies which enhance women's status, carried out both by government and NG0s. are most likely to succeed in reducing and eventually eradicating female infanticide. These would have a better chance of success if the social, cultural and political leaders of Indian society were to take a public position against it and put forward actions that will lead to social transformation in favour of gender equality. However, as the rate of these deaths is reduced, it will become more and more difficult to know whether the practice is continuing unless the whole community is involved. Tamil society is unlikely to attain a high degree of gender consciousness in the next five years, but there is probably no harm in setting ambitious goals. Success in a few regions would provide hope and perhaps motivate some change in high-incidence communities.

Monitoring the Effectiveness of Prevention Strategies

The effectiveness of different strategies to reduce rates of female infanticide is currently unknown and will be difficult to assess. First, a standard definition of 'saved' baby girls is needed in order to collect reliable data on the number whose deaths have been prevented. Because the first girl child is seldom, if ever, a victim of female infanticide, a definition currently used by one organization is the number of surviving girls who have a living sister. This definition would be appropriate in areas of high incidence, where many families will keep only one girl alive. However, in other areas it will overestimate the number of saved baby girls, as not all families will kill a second girl even in the absence of any intervention. For the time being, it is as good a working definition as any currently available.

It is also important to monitor whether there is a shift in practice taking place in Tamil Nadu from female infanticide and excess girl mortality to sex-specific abortion, as has been noticed in Punjab and Haryana. [41] The sex ratio at birth in places where female infanticide has been documented would be an indicator of this, but not a very reliable one when the number of births being taken into account is low (less than 5000 per year).

Programmes must avoid a situation in which the 'successful' prevention of female infanticide results in longer-term neglect of saved girl children. Such deprivation results in stunted growth and malnourishment and has adverse functional consequences such as impaired mental abilities, poor physical capability and a high risk of childhood mortality. [42] Consciousness-raising and gender sensitization of women and families should aim, in the first instance, for better care for girls who are the most vulnerable to neglect, as we demonstrated in the four-year project in 12 North Arcot villages where I first encountered female infanticide among other forms of gross neglect of girl children. [43] Along with these steps, it is imperative to implement policies and programmes for the promotion of equality for women in political, legal, economic, educational and social spheres. [44]

Acknowledgements

I gratefully acknowledge discussions with many individuals and organizations in Tamil Nadu and thank the groups who allowed me to spend time with them and observe their activities. Given the sensitive nature of this subject, I regret being unable to name these organizations. This work was supported in part by

the India Fund and the Institute for the Study, of Natural and Cultural Resources. I thank V Nagarajan, K Sridhar and D Mahalanabis for their interest. Finally for editorial assistance: Dennis, Soman and Ruth.

References and Notes

1. Ravindran TKS, 1997. Health implications of gender discrimination in childhood: unraveling the complexities. World Health Organization, Geneva (forthcoming).

2. Anderson JW, Moore M, 1993. Oppressed: women in the developing world face cradle to grave discrimination and poverty. Washington Post. 14 February. Washington DC. Al.

3. Ramanamma A, Bambawale U, 1980. The mania for sons: an analysis of social values in South Asia. Social Science and Medicine 14B:107.

4. Patel V, 1989. Sex determination and sex pre-selection tests in India: modern techniques for femicide. Bulletin of Concerned Asian Scholars. 21:2.

5. Advertisement. India Abroad. New York, September 1988.

6. Mitra A, 1993. Female foeticide. A primitive trend practised the world over. Down to Earth. 31 October. 43.

7. Krist of ND, 1993. Peasants of China discover new ways to weed out girls. New York Times. 21 July 1.

8. Stephen JD, 1991. Sexing the fetus. Lancet. 338:1336. Cases of female infanticide are sensationalised by the media in Canada.

9. Das Gupta M, Mari Bhat PN, 1996. Intensified gender bias in India: a consequence of fertility decline. Presented at Annual Meeting, Population Association of America, New Orleans, May.

10. Iyengar P, 1999. Girls in Salem are born to die. Times of India. 24 August, Bombay.

11. Aravamudan G. 1994 The killing fields: female infanticide. Week 3 April. Kottavam. 12.

12. Bumiller E, 1990. May You Be the Mother of a Hundred Sons. Random House. New York.

13. Basu AM, 1989. Is discrimination in food really necessary for explaining sex differentials in childhood mortality? Population Studies. 43:193-210.

14. Vaasanthi, 1994. Born to die: tragedy of the doomed daughter. Hindu. 20 November. Madras, V.

15. George S. M., Abel R., Miller B.D., 1992. Female infanticide in South Indian villages. Economic and Political Weekly. 27:1153.

16. Venkatachalam R, Srinivasan V, 1993. Female Infanticide. HarAnand, New Delhi.

17. Harris-White B, 1997. Development and death: adverse child sex-ratios in rural Tamil Nadu. Frontline, 4 April. Madras. 89.

18. George S. M., Latham M. C., Abel R. et al, 1993. An evaluation of good growth monitoring in South Indian villages. Lancet. 342:348.

19. Nielsen B.B., Liljestrand J., Hedegaard M. et al, 1997. Reproductive pattern, perinatal mortality, and sex preference in rural Tamil Nadu, South India: community-based, cross-sectional study. BMJ. 314(May): 1521-24.

20. George SM, 1995. The government response to female infanticide in Tamil Nadu: from recognition back to denial? Paper presented at MIDS-ICSSR 25th Interdisciplinary Research Methodology Workshop for Southern States. Kottayam, August.

21. Chunkath S.R. Athreya V.B., 1997. Female infanticide in Tamil Nadu: some evidence. Economic and Political Weekly,. 26 April. WS-21.

22. Athreya V. B., C hunkath S. R., 1997. Gender discrimination strikes: disquieting aspects of early neonatal deaths in Tamil Nadu. Frontline, 11 July. Madras. 94.

23. This figure comes from the author's personal knowledge after years of work in North Arcot and Madurai districts, by see also [20].

24. Kielmann A. A., Taylor C. E., DeSweemer C. et al, 1983. Child and Maternal Health Services in Rural India: The Narangwal Experiment. Vol. 1. Johns Hopkins University Press, Baltimore.

25. Das Gupta M, 1987. Selective discrimination against female children in rural Punjab. Population & Development Review. 13:77.

26. Muhuri P. K., Preston S. H., 1991. Effects of family composition on mortality differentials by sex among children in Matlab, Bangladesh. Population & Development Review 17:415.

27. Venkatramani S. H., 1986. Female infanticide: born to die. India Today. 28,15 June. 28.

28. Iyengar P, 1993. Female infanticide: sex ratio in Tamil Nadu dips. Times of India. 30 January, Bombay. 1.

29. George S. M., 1995. The practices of female infanticide and female feticide: responses by Non-Governmental Organizations. Towards Prevention of Female Infanticide. SekharJMK, George SM et al (eds.) Center for Rural Health and Social Education, Tirupatur.

30. Personal communications with members of SIRD during 1994-5.

31. Dr. J. Jayalalitha l5-Point Programme for Child Welfare. Government of Tamil Nadu, Department of Social Welfare, November 1993. Madras.

32. Father gets life term for female infanticide. Hindu. November 6 1992, Madras.

33. Renganathan A. Antonysamy, Sivanandhan. 1995. Female infanticide in Salem district. Report prepared by VRDP, Omalur and CEDA Trust, Dindigul.

34. Schemes to make Salem district female friendly. Hindu. June 9, 1994, Madras.

35. Kirubhakaran R. Secretary to Government of Tamil Nadu, Social Welfare & Nutritious Meal Programme Department. Government Order. Ms No 533, 13 October 1992, Madras.

36. Kirubhakaran R. Secretary to Government of Tamil Nadu, Social Welfare & Nutrition Meal Programme Department, Government Order, Ms No 184, 13 July, 1993, Madras.

37. Kirubhakaran R. Secretary to Government of Tamil Nadu, Social Welfare & Nutritious Meal Programme Department, Government Order, Ms No 533, 11 October 1993, Madras.

38. Kirubhakaran R. Secretary to Government of Tamil Nadu, Social Welfare & Nutritious Meal Programme Department, Government Order, Ms No 21, 19 January 1994, Madras.

39. Personal communication with an NGO worker in Madurai, October 1994.

40. Personal communication with an NGO worker in Madurai, March 1995.

41. Personal observations from field work in 1996-97 in Haryana. For female infanticide practice see Miller B.D., 1981. The Endangered Sex: Neglect of Female Children in Rural North India. Cornell University Press, New York. Supportive evidence of widespread sex-specific abortions in the 1980s-90s can be obtained from sex ratios at birth (males per hundred females) which is highest in the North Western states in India (115 and 113 for Haryana and Punjab respectively). See Women in India: A Statistical Profile, 1997. Department of Women and Child Development, Government of India, New Delhi, 1997. The sex ratio of Hospital births in Punjab in 1988 was 122.

42. Martorell R, Rivera J, Kaplowitz H. et at, 1992. Long-term consequences of growth retardation during early childhood. Human Growth: Basic and Clinical Aspects. Hernandez M, Argente J (eds).

43. George S. M., Haas J. D. Latham M. C., 1994. Nutrition education can reduce gender inequity in growth of pre-school children in rural South India. Paper presented at American Institute of Nutrition Meeting, FASEB, Anaheim CA, USA. April.

44. Batliwala S., 1994. The meaning of women's empowerment: new concepts from action. Population Policies Reconsidered. Sen G, Germain A, Chen LC (eds). Harvard University Press, Boston.