Reference Materials - II

SEX SELECTION IN INDIA: ISSUES AND APPROACHES

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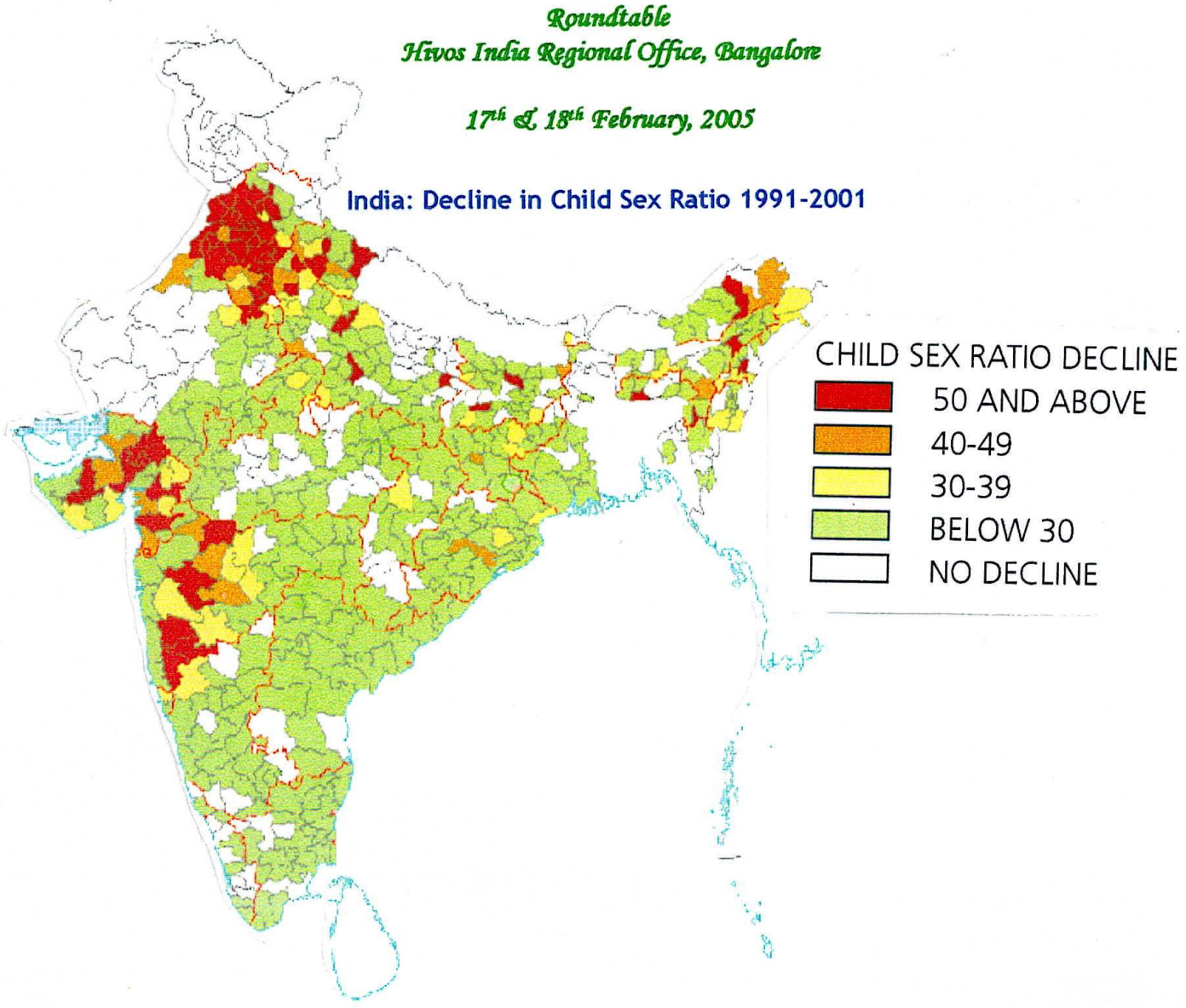
Roundtable
Hivos India Regional Office, Bangalore

17th & 18th February, 2005

India: Decline in Child Sex Ratio 1991-2001



Source: Missing: Mapping the Adverse Child Sex Ratio in India, compiled by the Office of India's Registrar - General and Census Commissioner, the Ministry of Health and Family Welfare, and UNFPA.

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Role of Medical Establishment – Role of New Reproductive Technologies

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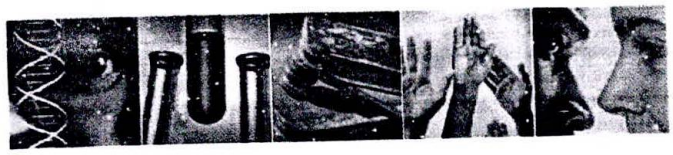

SOCIAL JUSTICE & THE NEW HUMAN GENETIC TECHNOLOGIES

Imagine a world in which well-off people planning to have a baby can buy all sorts of genetic "enhancements" for their future child—better memory, perfect pitch, straighter nose, longer legs. Fertility clinics craft upscale marketing and advertising campaigns with the message that responsible parents must do whatever they can to give their child an advantage in a competitive world. Of course, only the wealthy can access these technologies, and the poor fall further behind. Meanwhile, biotechnology corporations are busy discovering the genes linked to "desirable" traits and hurry to develop artificial human chromosomes and "gene cassettes" as well as to patent lucrative pieces of the human genetic code.

Cloning and Beyond: An Active Agenda

Such a world is not only being imagined, but actively promoted by a group of influential scientists, biotech entrepreneurs, bioethicists, and others. Their vision of "consumer eugenics" (producing allegedly superior human beings by means of commercially available reproductive and genetic procedures) is finding its way into mainstream culture, sometimes accepted and even endorsed by major newspapers, news magazines, and journals of opinion.

Many people have followed the recent headlines about human cloning: a bizarre sect claiming to have produced human clones; the difficulties of passing cloning policy at the United Nations as well as in the U.S. and other countries. But few people, including social and political leaders, are aware of the technical and ideological ties between cloning and the procedures that, if developed, would enable a high-tech, free-market eugenics. Some of these technologies may appear far-off and futuristic, but they are already being widely used in animals.

> *"The final goal of reproductive engineering appears to be the manufacture of a human being to suit exact specifications of physical attributes, class, caste, colour and sex.... The powerless in any society will get more disempowered with the growth of such reproductive technologies."*
>
> **-Saheli Women's Resource Centre, India**

The prospect of consumer eugenics is particularly threatening for groups that have been historically targeted or disempowered. The underlying technologies—especially cloning and "inheritable genetic modification" (manipulating the genes of very early embryos, so that the child that develops from it will have certain characteristics)—are of special concern to women because they are so closely tied to reproduction and women's health. Their use would dangerously transform the lives of women and children, and exacerbate existing trends toward corporate-dominated "reproduction for profit."

People of color and people with disabilities were targeted by eugenic practices of the twentieth century, in which discoveries in genetics were used to justify scientifically dubious and morally indefensible efforts

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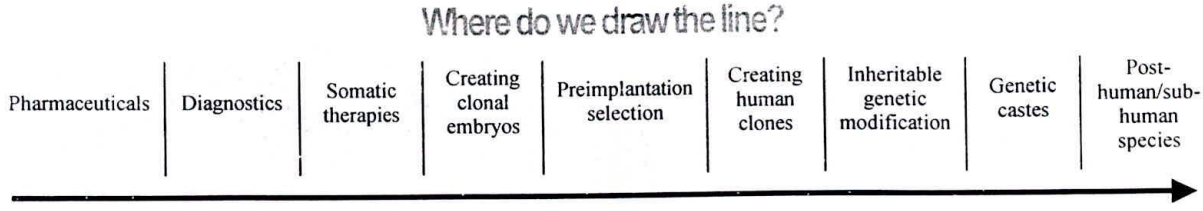
The **Center for Genetics and Society** (www.genetics-and-society.org) is a nonprofit information and public affairs organization working to encourage responsible uses and effective societal governance of the new human genetic and reproductive technologies. We work with a growing network of scientists, health professionals, civil society leaders, and others. The Center supports benign and beneficent medical applications of the new human genetic and reproductive technologies, and opposes those applications that objectify and commodify human life and threaten to divide human society.



to "improve" the human gene pool. Then, proponents relied on state-sponsored coercive methods such as involuntary sterilization.

A resurgence of state-sponsored programs of eugenic sterilization (or worse) is, thankfully, unlikely in most countries. Unfortunately, we do have to take seriously the prospect of a new commercial eugenics, ideologically motivated by notions of "genes as destiny" and consumer choice, and economically driven by life sciences corporations that could decide to develop and market species-altering technologies to those who can afford them. The effects would be similar: the poor and disempowered would be deemed inferior because of their "less fit" or merely "natural" genes, with all too predictable consequences for their social, political, and economic well-being.

Responsible Policies for Powerful Technologies

A few applications of human genetic and reproductive science thus open the door to forms of eugenic engineering more powerful than any envisioned by the state-sponsored eugenics movements of the twentieth century. Many other applications are worthy of support. There is no reason that we cannot distinguish between the two, and put in place policies that would foreclose the profoundly dangerous outcomes while ensuring universal access to beneficial ones.

> *"The lessons of history have shown us what happens when people are ordered as better and worse, superior and inferior, worthy of life and not so worthy of life....What can happen when the technology used in support of genetic thinking is not the crude technology of shackles and slave ships, of showers that pour lethal gas and of mass ovens, or even the technology of surgical sterilization, but the fabulous, fantastic, extraordinary technology of the new genetics itself?...My children will not be led to genetic technology in chains and shackles, or crowded into cattle cars. It will be offered to them."*
>
> -Barbara Katz Rothman, City University of New York

The United Nations has taken steps to draft a global treaty banning reproductive cloning, and many countries have already passed legislation that prohibits the production of cloned or genetically modified children. Other countries, including the United States, have no such legislation. And although many people are now aware that powerful new reproductive and genetic technologies are looming, there is still little critical understanding of their political and social implications.

> *"Humans have long since possessed the tools for crafting a better world. Where love, compassion, altruism and justice have failed, genetic manipulation will not succeed."*
>
> -Gina Maranto, science writer

Fortunately, that situation is beginning to change through the efforts of advocates of women's and human rights, social justice, environmental protection and environmental justice, disability rights, and responsible science. It will be far easier to prevent a new eugenic future if we act before inheritable genetic modification and cloning develop further, either as technologies, as ideologies, or as business interests.

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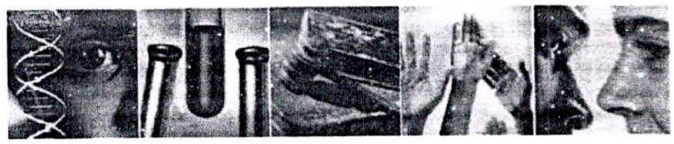
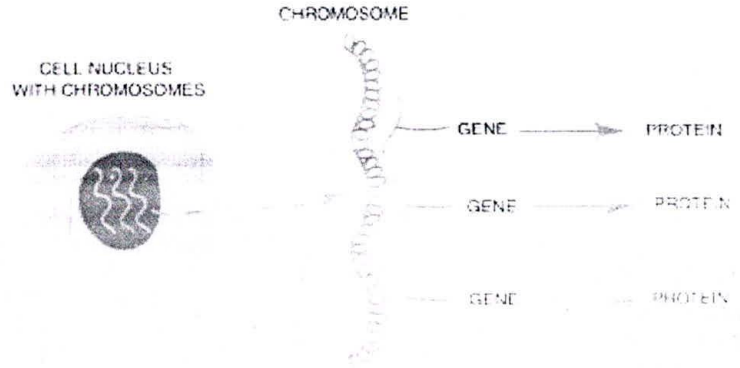


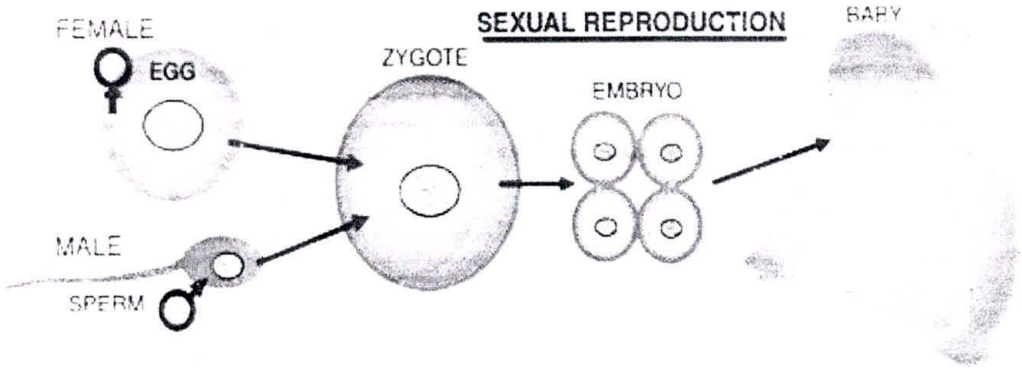
THE BASIC SCIENCE

Reproductive Cloning

Reproductive cloning means creating a genetic duplicate of an existing organism. A human clone would be a genetic duplicate of an existing person. *Genes* are strings of chemicals that help create the proteins that make up your body. Genes are found in long coiled chains called chromosomes. They are located in the nuclei of the cells in your body.

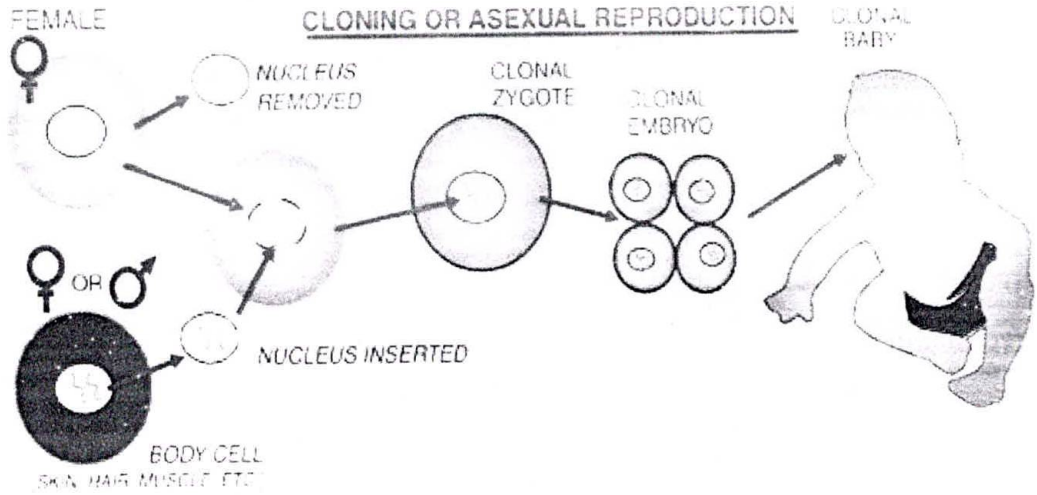


In sexual reproduction, a child gets half its genes from its mother (in her egg) and half from its father (in his sperm):



This combination of genes is a fundamental basis for human variation and diversity.

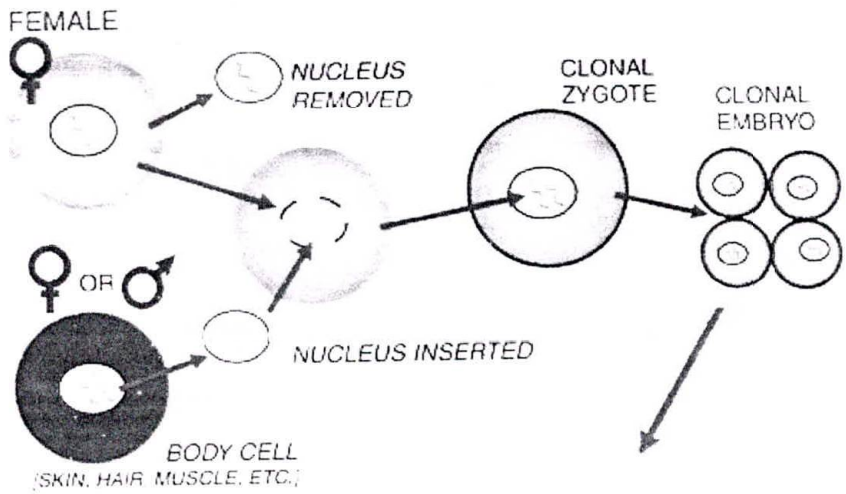
In the case of clonal reproduction, all of the cloned child's genes would come from a body cell of a single individual:



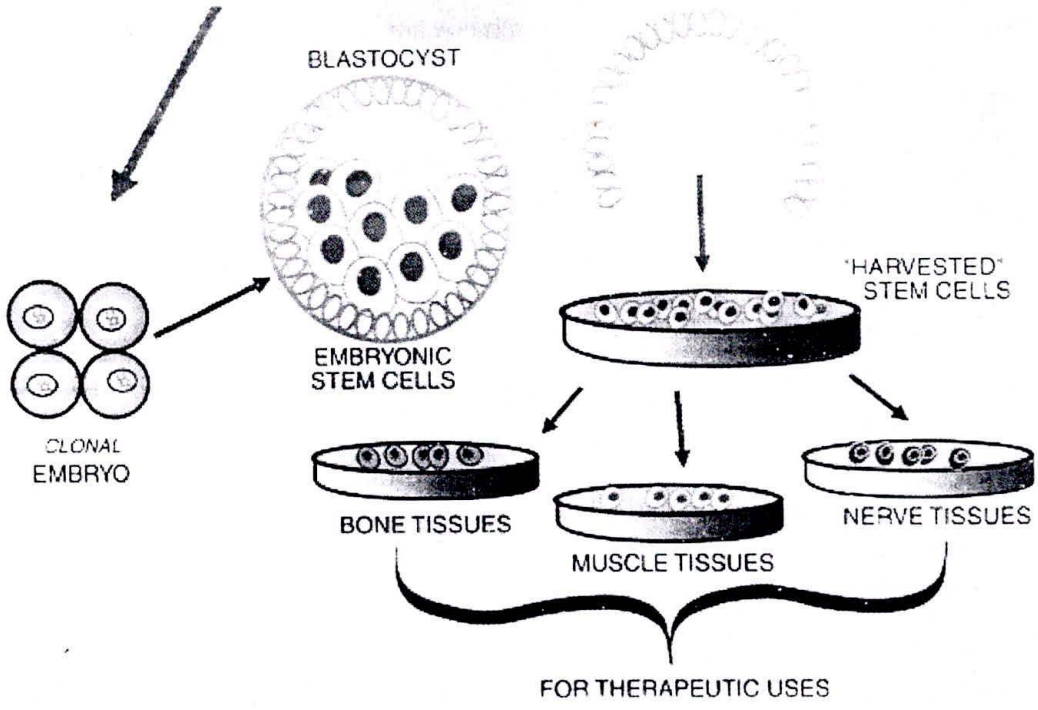
The best known cloning technique, somatic cell nuclear transfer (SCNT), is shown above. The nucleus from a body cell is put into an egg from which the nucleus has been removed. The resulting entity is triggered by chemicals or electricity to begin developing into an embryo. If that embryo were placed into a woman's uterus and brought to term, it would develop into a child that would be the genetic duplicate of the person from whom the original body cell nucleus was taken—a clone.

Research Cloning

Research cloning uses somatic cell nuclear transfer to produce a clonal embryo. Sometimes called "embryo cloning" or "therapeutic cloning," it would begin with the same procedure that would be used for reproductive cloning: the nucleus from a body cell is put into an egg from which the nucleus has been removed. The resulting entity is triggered by chemicals or electricity to begin developing into an embryo.



Instead of being implanted in a womb and brought to term as a cloned child, the embryo would be used for research purposes—for example, to generate embryonic stem cells.



Most scientists agree that research cloning is not needed as a source of embryonic stem cells for medical research —these can be obtained from embryos generated by in vitro fertilization. Rather, researchers have proposed that research cloning may turn out to be useful for producing "customized" embryonic stem cells that could generate compatible replacement tissues for individual patients. Replacement tissues generated in this way would presumably not be rejected by a patient's immune system, since their genetic make-up would be the same as that of the patient.

Preimplantation Genetic Diagnosis (PGD)

Preimplantation genetic diagnosis (PGD) tests early-stage embryos produced through in vitro fertilization (IVF) for the presence of a variety of conditions. One cell is extracted from the embryo in its eight-cell stage and analyzed. Embryos free of the targeted condition can be implanted in a woman's uterus and allowed to develop into a child.

PGD allows couples at risk of passing on a serious genetic condition, such as Tay-Sachs disease, to have a child that is fully genetically related to them and that does not carry genes for the disease. It does not involve manipulation of genes in embryos; rather, it selects among embryos.

Because it allows the selection of particular traits in future children, PGD can be considered a eugenic technology. Disability rights advocates in particular have been critical of its uncontrolled use. They point out that the definition of "disease" is to some extent subjective, and that people with disabilities can live full and happy lives. PGD is increasingly being used for less and less serious conditions, and some US fertility clinics advertise PGD for the selection of a preferred sex. PGD could also be used in attempts to select a future child's cosmetic, behavioral, and other traits.

Inheritable Genetic Modifications

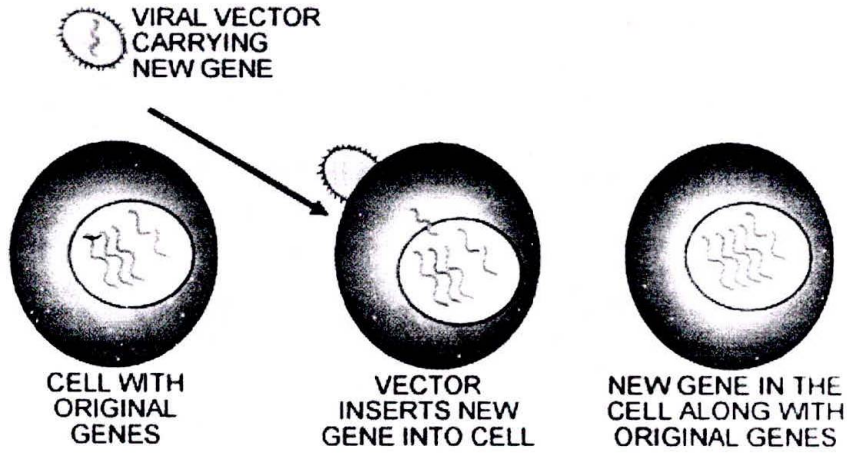
The terms "human genetic modification" or "human genetic engineering" mean changing genes in a living human cell.

There are two types of genetic modification. *Somatic* modifications involve adding genes to cells *other than* egg or sperm cells. If you had a lung disease caused by a defective gene, scientists might be able to add a healthy gene to your lung cells and alleviate the disease. The new gene would not be passed to any children you may have.

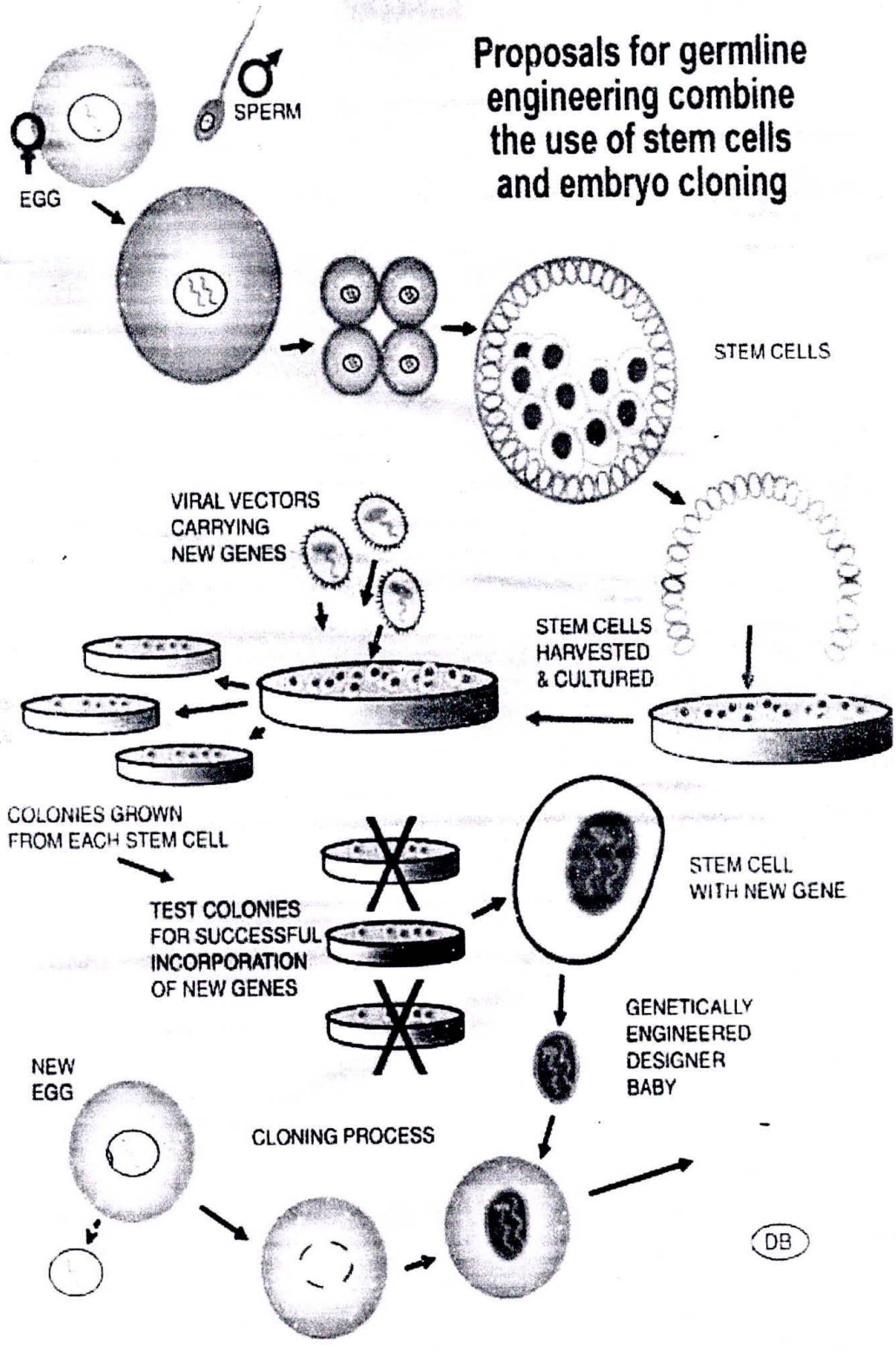
Germline modifications (also called "inheritable genetic modifications") would change genes in eggs, sperm, or very early embryos. The modified genes would appear not only in any children that resulted from such procedures, but in all succeeding generations. This application is by far the more consequential, because it would open the door to the alteration of the human species.

Genes are strings of chemicals that help create the proteins that make up the body. They are found in long coiled chains called chromosomes located in the nuclei of the cells of the body. (See image on the first page.)

Genetic modification occurs by inserting genes into living cells. The desired gene is attached to a viral vector, which has the ability to carry the gene across the cell membrane.



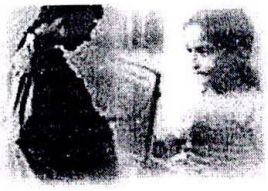
Proposals for inheritable genetic modification in humans combine techniques involving in vitro fertilization (IVF), gene transfer, stem cells and cloning:



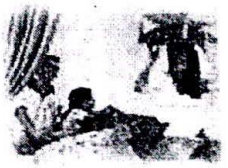
As shown above, germline modification would begin by using IVF to create a single-cell embryo, or zygote. This embryo would develop for a few days to the blastocyst stage, at which point embryonic stem cells would be removed. These stem cells would be altered by adding

genes using viral vectors. Colonies of altered stem cells would be grown and tested for successful incorporation of the new genes. Cloning techniques would be used to transfer a successfully modified stem cell nucleus into an enucleated egg cell. This "constructed embryo" would then be implanted into a woman's uterus and brought to term. The child born would be a genetically modified human.

(Images courtesy of the Association of Reproductive Health Professionals)



STOP SELECTIVE SEX ABORTIONS
STOP FEMALE FOETICIDE



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NGO moves court over MCI'S failure to check foeticide

NEW DELHI: Aggrieved by a doctor's alleged admission on a television channel that foeticide was his - and other doctors' - chief source of income, a women's organization has moved the high court against the failure of the Medical Council of India (MCI) to take deterrent steps in this regard.

Seeking directions to the MCI to take action against the Mumbaibased doctor, Mahila Jagran Samiti also wants the apex medical body to amend its code of ethics in view of the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act of 1994.

The PNDT Act makes the offence of pre-natal sex determination punishable by removal of the guilty doctor from the register of the council and, consequently, cancel his/her licence to practice.

The petitioners' grievance is that despite the fact that the Act was enacted eight years ago, the MCI is yet to incorporate a provision for canceling the licence to practice.

In 1996, when the National Human Rights Commission (NHRC) tabled its annual report focusing on sex-selective abortions, the MCI had given an undertaking that it would amend its code of ethics in order to take action against erring doctors. But till date, it has not done so. Provisions of the Act notwithstanding, Mumbai-based gynaecologist on August 16 last year had openly admitted during a talk show - US Newshour - on PBS Television that he was a participant in "a widely corrupt system" and that such terminations are his chief source of income. The programme was on the rampant practice of sex etermination in India.

The petitioner quoted him saying. Unless the government really puls its foot down and decides to act really tough with the people who are doing this, I don't think there is any way to curb this procedure."

"It is abundantly clear that although there is a law prohibiting sex determination, the enforcement machinery works so slowly, or does not work at all, that doctors are confident that they will not be penalized," the petition said.

Section 23(2) of the Act makes the offence a non-cognizable, nonbailable and non-compoundable punishable with imprisonment for five years and a fine of upto Rs 20,000. Subsequent offences would attract an imprisonment of five years with a fine of upto Rs 50,000.

Once the doctor is convicted under the Act, the MCI is supposed to remove him/her from its register, thus canceling his/her licence to practice. But MCI has not amended its code even eight years after the Act was passed.

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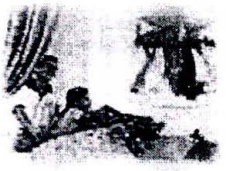
Article in Hindi

STOP SELECTIVE SEX ABORTIONS
STOP FEMALE FOETICIDE



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Sex test law kills off ultrasound *by Kalpana Jain*

New Delhi: As the government, under pressure from the Supreme Court, cracks the whip to implement a law banning sex selection, medical professionals are trying to devise mechanisms for continuing with the legitimate use of ultrasound.

Ultrasound is used for determining the sex of the foetus, but it is an important diagnostic tool as well.

The aim of the law, framed in 1994, was to penalize those who assist in the process of female foeticide by determining, medically, the sex of the foetus. However, eagerness to implement the law has resulted in checking the use of ultrasound even by those clinics which do not offer any maternity services.

Recent interpretations of the law have made routine ultrasound scans for a pregnancy almost impossible. Doctors are having to give reasons such as "history of aspirin" for an ultrasound scan of a pregnant woman. And patients requiring diagnostic services for a heart, kidney or another condition requiring an ultrasound, find doctors unwilling to provide the services.

"Until we get a clarification, even cardiologists are prohibited from taking their portable ultrasound machines out. All free heart checkup camps too have been stopped for the same reason," says the head of a branch of the Indian Medical Association, K K Aggarwal.

Chairperson of the Pre-natal Diagnostic Techniques Act advisory committee of the Delhi government, Dr Sharda Jain, says that not only are doctors being harassed but foeticide continues just the way it did earlier.

"If a woman comes to me in her third month of pregnancy and I refuse to abort, then she must be finding a place to get it done, if she does not come back to me again," says Jain. "We have been telling the government of places where people are sitting with these ultrasound machines and termination of pregnancy too is taking place, but nothing happens."

Undoubtedly, the issues are complex and the problem of foeticide needs to be addressed at several levels.
Member of the national monitoring board for the PNDT Act, Mira Shiva, agrees that the sensitization of people responsible for its implementation in various states has not been adequate.

However, national convener of the IMA's female foeticide campaign committee Vinay Aggarwal, who tried to get doctors to be sensitive to the issue, is no longer so enthusiastic. "In the name of implementation 'inspector raj' has taken over, which has done little else, except getting ultrasound centers sealed."

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Article in Hindi

Sex Selection: New Technologies, New Forms of Gender Discrimination

By Rajani Bhatia, Rupsa Mallik, and Shamita Das Dasgupta, with contributions from Soniya Munshi and Marcy Darnovsky

October 2003

Introduction

With the advent of reproductive technologies that made it possible to detect the sex of a fetus developing in a woman's womb came a new method of discrimination against girls and women. Developed in the 1970s, prenatal diagnostic technologies like ultrasound scanning and amniocentesis proved profitable when marketed as a method of sex selection. Using prenatal diagnosis to detect sex, a person could choose not to have a child based on the sex of the fetus and opt for an abortion.(1) Availability of these technologies and their promotion as tools for sex selection spread fast, primarily in South and East Asia. Currently, they are the most commonly practiced method of sex selection around the world.

Where its use is most widespread, prenatal diagnosis for sex selection reveals clear discrimination against the girl child, leading to severe gender imbalances in the population. In India, for example, the 2001 census recorded a substantial decline in the child sex ratio from 945 to 927 females per 1000 males in just ten years. In urban areas the ratio declined even more dramatically from 935 to 903 girls per 1000 males.(2) In China, the sex ratio at birth since the mid-1980s is only 100 girls per 107-120 boys.(3)

For decades, women's rights groups in these regions and disability rights groups internationally led the struggle to expose the discriminatory use of these technologies. They sought, and in many cases succeeded, in getting laws passed to regulate their use. But, due to poor oversight and implementation, rampant misuse continues.

The U.S. Context

Adding to this climate, the powerful fertility industry (4) in the U.S. has recently developed and begun promoting even newer technologies for sex selection. These include sperm sorting and pre-implantation genetic diagnosis (PGD), both of which carry the "added value" of not requiring abortion, a politically contentious issue in the U.S. Both sperm sorting and PGD increase the likelihood of establishing a pregnancy with a developing child of the desired sex. Because they are applied either prior to conception of an egg by sperm (sperm sorting) or prior to implantation of a fertilized egg into a women's uterus (PGD), neither process necessarily involves abortion. However, because neither is 100 percent accurate, some couples using these methods may still resort to use of PND followed by sex selective abortion.

Both PGD and sperm sorting require the use of expensive assisted reproductive technologies commonly used in the fertility industry (like in-vitro fertilization or artificial insemination). The overall cost of sperm sorting and PGD is very high. For example, in 2001 the average couple using MicroSort, one method of sperm sorting promoted in the U.S. spent nearly $10,000. MicroSort costs $3,200 a try and most attempted it three times.(5)

Sex selection advocates in the U.S. promote the use of these techniques for what they call "family balancing" or "gender variety," a notion that presupposes families ought to have children of both sexes. In the U.S., arguments for sex selection seem to rest on the assumption that the only thing problematic about its use is the elimination of females through sex selective abortions in societies where there is a strong preference for sons, e.g., India and China. This, they say, is unlikely to happen in the U.S.

In recent months, sex selection ads have appeared in leading newspapers like *The New York Times*. Ads in the North American editions of *Indian Express* and in *India Abroad* have specifically targeted South Asians living in this country.(6)

The increased use and acceptance of sex selection in the U.S. would likely legitimize its practice elsewhere and complicate the effort by rights-focused constituencies to develop societal and legal mechanisms that can prevent current and future abuses, both here and abroad.

It is urgent that the unethical promotion and growth of an industry for sex selection is discouraged in the U.S. In particular the high social cost, abuse potential, experimental nature as well as limited efficacy of these methods need to be exposed. The practices of the profit-seeking fertility industry as a whole require oversight and regulation (currently seriously lacking in the U.S.), in order to ensure ethical use of all new reproductive technologies.

Sex Selection and Discrimination

Economic and social pressures to raise male children in the U.S. may be less than in other societies, but they are not completely absent. Furthermore, sex selection is by definition not gender neutral. While we would like to believe that our preference for one sex over another is not influenced by bias, almost all societies have internalized strong prejudices based on sex from which none of us are completely immune. A decision to have a girl over a boy, or the other way around, will be based on gender stereotypes. What if the child does not live up to our "boy" or "girl" expectations? Would the disappointed parents feel they had not gotten their "money's worth?" What does it mean to think of a child as a product with a price tag?

Sex Selection and Gender Violence

Son-preference is a by-product of the ubiquitous patriarchal social system. Unfortunately, this favoring is hardly a harmless idiosyncrasy, as the valuing of male children is generally accompanied by the contrasting neglect and mistreatment of daughters. Historically, this degradation of girls has been expressed in various ways, from female infanticide, to denial of nutrition and health care after birth, to withholding education and empowerment opportunities to girls and women while they are growing up. With the advancement in reproductive technology, pre-natal diagnostics followed by sex selective abortion was added to this list of abuses.

Violence against girls and women often takes the form of deprivation and neglect. But, the dynamic of domestic violence can also involve control of women's reproductive capacity. This aspect of domination can become part of a batterer's pattern of abuse.

In the South Asian context, giving birth to a son enhances a woman's status within the family, whereas her inability to produce a male heir may result in humiliation, contempt, abuse, and abandonment. Men frequently blame their wives for not giving birth to a male child. In-laws may also openly threaten their daughters-in-law with dire consequences if they are unable to produce a son. In abusive situations, a woman may be forced to undergo tests to identify the sex of her unborn child, and then coerced to abort if the fetus is female. Women may be beaten and/or divorced for not giving birth to sons. An abusive spouse may use the birth of a daughter as a pretext for violence towards his wife, and then be violent towards the unwanted daughter. Such abuses occur in the U.S. context as well.

Sex Selection is Big Business

Since new techniques of sex selection require the use of assisted reproductive technologies (7) (like in vitro fertilization and artificial insemination), the fertility industry can use sex selection to expand their market to fertile couples. *Fortune* magazine estimates a U.S. market between $200 and $400 million per year for the sperm sorting method, MicroSort.(8) In spite of their high price tags, invasiveness, and

risks, demand for these methods appears likely to be high. Surveys reveal that 25-35 percent of all parents or prospective parents in the U.S. would use sex selection if it were available.(9) One fertility specialist interviewed by the *New York Times* said he could fund all of his research until the day he died if he honored the requests he got for sex selection.(10)

American companies are already turning profits on sex selection in South Asia. General Electric (GE), for example, captured the largest market share for ultrasound scanners in India. GE sold a disproportionate number of these machines in Northwest India where the female to male child sex ratio is the lowest.(11) Another American company, Gen-Select, recently marketed dubious sex selection kits in the *Times of India*.(12)

New Reproductive Technologies Used for Sex Selection

Prenatal diagnosis (PND): Developed in the 1970s, PND through techniques such as ultrasound scanning and amniocentesis followed by sex selective abortion remains the most common method of sex selection practiced around the world for the last three decades.

Pre-implantation genetic diagnosis (PGD): First tested on humans in 1990, PGD has found increasing use during the last 5 years mainly by infertile couples undergoing in vitro fertilization (IVF) who are at risk of having babies with certain genetic conditions. After fertilization of a woman's eggs by a man's sperm takes place in the laboratory, genetic testing is performed on the resulting embryos (fertilized eggs) to determine sex. Only embryos of the "desired" sex are implanted in the woman.

Disability rights advocates have raised concern about whether and where to draw the line on acceptable uses of PGD. Screening out embryos of "the wrong sex" underlines how the method is already used without reflection about its impact on how people are valued (or devalued) in society. PGD has been used to screen out embryos carrying a gene indicating an increased likelihood of deafness in future generations of offspring.(13) Will PGD be used next to screen out undesirable hair and eye color? The issues of sex selection are strongly related to forms of oppression based not only on gender, but also on race, ability and class.

Since this method is experimental, it is not known whether the process of removing a cell from the embryo for genetic testing may result in long-term health consequences for the resulting child.(14) For women, IVF is an intrusive procedure that may have to be repeated a number of times before a successful pregnancy is achieved, if at all.(15) Risks include ovarian hyper-stimulation syndrome, a potentially life threatening condition, and multiple births.(16) Recent studies also suggest that infants conceived by IVF have a higher risk of low birth weight and birth defects than those conceived naturally.(17)

Sperm Sorting: Since it is the sex chromosomes of a man's sperm that determine the sex of offspring, sorting female from male bearing sperm is one method of sex selection. This is a pre-conception method because it is used prior to fertilization of a woman's egg, which is accomplished either by artificial insemination or IVF. There are currently two methods to sort sperm, which were originally developed to breed livestock of a particular sex. Since both are currently under experimentation for humans, health risks are not fully known. When sperm sorting is used in conjunction with IVF, the associated risks must again be taken into account.

Sperm sorting techniques remain unreliable. MicroSort, for example, had an average purity of 88 percent for female bearing sperm and 66 percent for male bearing sperm in 916 sorts conducted between June 1994 and April 2000.(18)

Legal Status Regulating Sex Selection in Selected Countries

In the UK, stringent guidelines by the Human Fertilization and Embryology Authority (HFEA) regulate the use of PGD. The HFEA recently held a public consultation to decide whether or not to regulate sperm sorting.

The Council of Europe's Convention on Human Rights and Biomedicine states in Article 14, "The use of techniques of medically assisted procreation shall not be allowed for the purpose of choosing a future child's sex except where serious hereditary sex-related disease is to be avoided."(19)

In Canada legislation was introduced in May 2002 to make sex selection a crime if used for purposes other than to prevent, diagnose or treat a sex linked disorder or defect.(20)

In India, the use of PND, PGD and preconception techniques such as sperm sorting for sex selection have all been banned by the Pre-Conception and Pre-Natal Sex Selection/Determination (Prohibition and Regulation) Act, 2001.

In China, a law was passed in March 2003 to ban PND for sex selection.

In the US, there is currently very little regulation of the fertility industry. The American Society of Reproductive Medicine (ASRM), a trade association, issues policy recommendations on ethical use of technologies, but clinics are not required to follow them. The ASRM issued guidelines in 2001 that considered sperm sorting under certain conditions ethically allowable. Last year the ASRM confirmed its policy recommendation against the use of PGD for sex selection. In spite of this, some U.S. fertility clinics, such as the Tyler Medical Clinic in Los Angeles and the Sher Institute for Reproductive Medicine in Las Vegas, perform and advertise PGD for sex selection.(20)

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Article by Dr. Vibhuti Patel,
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'Sons are rising, daughters setting'

Sex selection is a violation of law and unethical. But our patriarchal society continues to turn a blind eye towards it or offer perverted excuses to justify its existence. Even the medical community has not protested against the malpractices of its guilty peers

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The recent controversy over Brihunmumbai Municipal Corporation filing a case against the Malpani Infertility Clinic, Colaba, Mumbai, for violating the recently amended Pre-conception and Prenatal Diagnostic Techniques (Prohibition of Sex Determination) Act (PNDT Act), 1994 has once again brought the issue of the doctor's participation in endangering lives of girl children into the lime-light. Rated as India's top five infertility clinics, it's website advised the public on how to select the sex of their child. Despite the highly reported concerns of the Supreme Court, expressed in a PIL on the subject for a very long time, the clinic continued to advertise in defiance of the orders. So far 48 clinics have been prosecuted for violation of the Act.

The legacy of continuing declining sex ratio in India has taken a new turn with the widespread use of new reproductive technologies (NRTs) in the cities and towns of India. NRTs are based on the principle of selection of the desirable and rejection of the unwanted (Patel, 2002).

In South Asia, we have inherited the cultural legacy of strong son-preference among all communities, religious groups, and citizens of varied socio-economic backgrounds. This preference is embedded in patri-locality, patri-lineage, and patriarchy, and its result is discrimination in property rights and low-paid or unpaid jobs for women. The Census of India for 2001 revealed that with the sex ratio of 933 women for 1,000 men, India had a shortfall of 3.5 crore women when it entered the new millennium. According to the Chandigarh-based Institute for Development and Communication, during 2002-2003 every ninth household in the state acknowledged sex selective abortion with the help of ante-natal sex determination tests. Commercial minded techno-docs and laboratory-owners have been using new reproductive technologies for femicide for over two and a half decades. Among the educated families, adoption of the small family norm means a minimum of one or two sons in the family. The propertied class do not desire daughters because the son-in-law may demand a share in property. The property-less classes dispose off daughters to avoid dowry harassment (although they do not mind accepting dowry for their sons). The birth of a son is perceived as an opportunity for upward mobility while the birth of a daughter is believed to result in downward economic mobility. Though the stronghold of this ideology was north India, it is increasingly gaining ground all over India.

To stop the abuse of advanced scientific techniques for selective elimination of female foetuses through sex-determination, the government of India passed the PNDT Act in 1994. But the techno-docs based in the metropolis and urban centres, and parents desirous of begetting only sons have subverted the act. Avers Prof Ashish Bose (2001) "The unholy alliance between tradition (son-complex) and technology (ultrasound) is playing havoc with Indian society". In several states of India, sex-selective abortions of female foetuses have increased among those who want small families of one, two, or maximum three children. Communities, which were practising female infanticide, started using sex-selective abortions. Many doctors have justified female foeticide as a tool to attain net reproduction rate (NRR) of one i.e. to attain population stabilisation or, that a mother should be replaced by only one daughter. There is an evident gender bias here too. To attain population stabilisation, a fertility rate of 2.1 is envisaged. There is evidence to indicate a sex ratio in favour of males and a prolonged duration of gender differentials in survivorship in the younger ages results in the masculining of the population sex ratio.

Sex selection is a covert form of violence while female foeticide is an overt form against women, with the use of tools like amniocentesis, chorion villai biopsy, sonography, ultrasound and imaging techniques and assisted reproductive technologies (in which infertile couples are helped to produce sons).

Socio-legal and ethical issues

Supporters of sex-selection tests for selective elimination of girls/female foetuses apply the law of demand to validate their stand i.e. "reduction in the supply of girls will enhance their status". Even some Western scholars like Prof Dickens (2002), writing in the prestigious *Journal of Medical Ethics* aver, "Son preference has produced, but might also mitigate, the sex ratio imbalance...If sons wish, as adults, to have their own sons, they need wives. The dearth of prospective wives will, in perhaps a

short time, enhance the social value of daughters, reversing their vulnerability and the force of male dominance". This neo-classical logic of the law of demand and supply does not apply to the complex social forces where patriarchy controls sexuality, fertility, and labour of women without any respect to her bodily integrity. Hence, the real life experiences speak to the contrary. In fact, shortage of women in Haryana, Punjab and the BIMARU states have led to a rise in the forced abduction and kidnap of girls, forced polyandry, gang rape, and child-prostitution. Besides, historical evidence does not support such arguments. The sex ratio has steadily declined in India since 1901 when it was 972 and now as per 2001 Census it stands at 933. And, of course, in this one century, the amount of dowry demanded and the number of women being killed have increased more times than the population has, and women's health and social status have shown no favourable trends as envisaged by the market principle. Instead of reversing male dominance, it has only universalised the slogan, so vociferous in Haryana: "Sons are rising and daughters are setting"!

Is it then a question of giving women a choice to choose the sex of the child they desire, an argument given by many doctors to justify their sex determination and selection practices? Doctors even refuse to accept that ethics have anything to with it. For instance, a press report on November 2001 (seven years after the government passed the PNDT Act), Dr Aniruddha Malpani, when asked whether it was ethical to selectively discard female embryos in his work in providing assisted reproductive services, asserted, "Where does the question of ethics come in here? Who are we hurting? Unborn girls?"

But what choice are we talking about for women who are compelled by the patriarchal system, and its supporters in the family and the society to produce sons? Alongside are threats of desertion, divorce, ill-treatment, and even wife murder for such women. Statistics show that these are not mere threats, but are often carried out. Under such a situation, women are not taking decisions autonomously. How can there be choice without autonomy?The crux of the issue is the question: Can we allow Indian women to become an endangered species?We need to counter those who believe that it is better to kill a female foetus than to give birth to an unwanted female child. Their logic is not only short-sighted but fatalistic. Their logic regards evils like dowry to be God-given and, therefore, not rectifiable. It is such thinking that creates advertisement copy like "Better Rs 5,000 now than Rs 5 lakhs later". By this logic, it is better to kill the poor than to let them suffer in poverty. Needless to say, investing in girls' education, health, and a dignified life to make them self-dependent is far more humane and realistic than brutalising the pregnant mother and her would-be daughter. A recent series of incidents in which girls have got their grooms arrested at the time of the wedding ceremony for demand and harassment for dowry is indeed encouraging.

Integrity and accountability of the medical profession

The struggle by the socially conscious and health activists to stop the misuse of medical skills and technologies which trigger violence against women is now two decades old. The first strong movement against doctors' unethical participation in such violence was started in 1984 in Mumbai, and resulted in a law against it in Maharashtra and Goa in 1989, and then the national legislation through the PNDT Act in 1994. However, till the government moved, medical councils dominated by vested interests in the profession did not come forward to declare doctors indulging in these practices unethical and making accountable those who were guilty of violating the integrity of the profession. Even after the enactment of the PNDT Act, they thwarted all moves to enforce it, in connivance with pliable government medical and civil bureaucrats.

It required public interest litigation in the Supreme Court by CEHAT, (Mumbai), MASUM (Pune), and Dr Sabu George. The Lawyers Collective (Delhi) fought on their behalf. The Court passed a directive on 4 May 2001, to activate the state machinery for the enforcement of the law. The court directed all state governments to take action for effective and prompt implementation, and directed all bodies under the PNDT Act, namely, genetic counselling centres, genetic laboratories, and genetic clinics to have registration and supervision to continue with their services. This directive also triggered off attempts to plug loop-hopes in the 1994 Act, and recently the parliament amended the law by bringing sex selection at a pre-conception stage under the scope of the law. They put in place a string of checks and balances to ensure that the Act was effective. The Brihunmumbai Municipal Corporation (BMC) has initiated a drive against the unauthorised determination of gender of foetus as per the directive of the ministry of law and justice. All sonography centres are required to register themselves with the medical officer of their wards. The display of registration certificate and the message that under no circumstances would the sex of the foetus be disclosed is mandatory at the centres.

Another important initiative has been against institutions/agencies whose advertisements, display of promotional posters, or television serials are suggestive of or invite gestures involving/supporting sex determination. MASUM registered a complaint with Maharashtra State Women's Commission against

Balaji Telefilms because its top-rated television serial showed a young couple checking the sex of their unborn child. The Commission approached the BMC and a first investigation report (FIR) was lodged at the police station. After an uproar created by the commission, Balaji Telefilms prepared an advertisement based on the Commission's script that conveyed that sex determination tests for selective abortion of female foetus is a criminal offence.

A study by Dr Sanjeev Kulkarni for the Foundation for Research in Community Health in 1984 indicated that 84 per cent of the gynaecologists in Mumbai admitted that they were performing amniocentesis. In comparison, a study by Dr Sunita Bandewar for CEHAT found that 64 per cent of the abortion service-providers were against sex selective abortions and another ten per cent said that they were also against it but were compelled to do it. Those who were against it were vociferous in their opinion: "It should be banned." "It is inhumane and criminal." "It is against medical ethics and human rights." "It amounts to discrimination against women."

Interestingly, it took two decades of consistent campaigning by the socially conscious and health activists using awareness and legislations to make some doctors realise that their act was unethical, discriminatory, and inhuman. One is still not sure whether such doctors are convinced or are just momentarily abstaining for fear of the law. Whatever it may be, by being party to the violence, the profession has compromised its integrity. It is disconcerting, however, that not only does a sizeable section of its members continue indulging in such malpractices, but the medical councils have not shown any initiative to take to task doctors whose names have been publicised. The medical profession cannot be let off as it waits for the police and appropriate authorities to chase violators of the law, while its own legally constituted and empowered councils remain a mute spectator to such gross violation of medical ethics. Till they put their act together, society will condemn the entire profession for the misdeeds of some errant members.

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Send this page to your friends

by Dr Vibhuti Patel

Poster by Tushar V Mantri: 'She has the right to live: Stop sex selective abortion'

Supporters of sex-selection tests for selective elimination of girls/female foetuses apply the law of demand to validate their stand i.e. "reduction in the supply of girls will enhance their status". Even some Western scholars like Prof Dickens (2002), writing in the prestigious *Journal of Medical Ethics* aver, "Son preference has produced, but might also mitigate, the sex ratio imbalance...If sons wish, as adults, to have their own sons, they need wives. The dearth of prospective wives will, in perhaps a short time, enhance the social value of daughters."

84 per cent of the gynaecologists in Mumbai admitted that they were performing amniocentesis

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A Study of Ultrasound Sonography Centres in Maharashtra

Sponsored by the
Ministry of Health and Family Welfare
Government of India

Sanjeevanee Mulay & R. Nagarajan
Population Research Centre
Gokhale Institute of Politics and Economics
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Contents

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January 6, 2005
Pune

Sanjeevanee Mulay
R. Nagarajan
Population Research Centre

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Chapter I

Introduction

India is predominantly a patriarchal society. The perception that the family line runs through a male makes men a precious commodity that needs to be protected and given a special status. The dominance of men is reflected also in our marriage practices. Dowry is a clear illustration of the same. In many parts of India, the dowries are so staggeringly high that the parents have to incur their entire savings in getting their daughters married off. Naturally, the daughters are cursed to an extent that even the birth of a girl child in a family is sought to be avoided.

The women always have fallen prey to violence like rape, sexual abuse, dowry harassment, etc. with no mechanism of fighting through effective laws. We are ashamed to find instances of female infanticide occurring regularly. Female infanticide now in most places has been replaced by female foeticide and more sadly, female foeticide has made inroads into areas, where earlier there were no instances of female infanticide. Further, we find that it has crossed the class-boundaries.

Female foeticide or sex-selective abortion is the elimination of the female foetus in the womb itself. However, prior to the elimination, the sex of the foetus has to be determined and it is done by methods like amniocentesis, chorionic villus sampling and now by the most popular technique ultra sound sonography. Ultra sound sonography is the least expensive test and can be performed around 12^{th} week of pregnancy. After the determination of the sex of the baby, if it is not desired, couples go for Medical Termination of Pregnancy.

Pre-natal Diagnostic Techniques (PNDT) Act

In 1978, the government of India issued a directive banning the misuse of amniocentesis in government hospitals. Thereafter due to the efforts of activists, a law to prevent sex determination was passed in Maharashtra, known as Maharashtra regulation of Pre-natal Diagnostic Techniques Act, 1988. Finally after a public debate all over India, the parliament enacted the Pre-natal Diagnostic Techniques (PNDT) Act on September 20, 1994. It provides for the regulation of: (i) Use of pre-natal diagnostic techniques for the purpose of detecting genetic or metabolic disorders or chromosomal abnormalities or

certain congenital malformation or sex-linked disorders; (ii) For the prevention of the misuse of such techniques for the purpose of pre-natal sex-determination leading to female foeticide; and (iii) For matters connected there with or incidental thereto. This act came into force in 1996. Some amendments in the act were suggested later on. The amended rules have come into effect from February 14, 2003.

Some important provisions of the PNDT Act:

- No genetic counselling centre, genetic laboratory, or genetic clinic (including clinics or laboratories or centres having ultrasound or imaging equipment), unless registered under the Act, shall conduct, associate with, or help in conducting activities relating to diagnostic techniques that can be used to assess the sex of a fetus.

- No person, including specialist in the field of infertility, shall conduct or cause to be conducted or aid in conducting a pre-conception sex-selection technique on a woman or man or both or on any tissue, conceptus, fluid, or gametes derived from either or both of them.

- No prenatal diagnostic technique shall be used or conducted unless the person qualified to do so is satisfied that at least one of the following conditions is fulfilled: (i) the age of the pregnant woman is above 35 years; (ii) the pregnant woman has undrgone two or more spontaneous abortions; (iii) the pregnant woman has been exposed to potentially teratogenic agents such as drugs, radiation, infection, or chemicals; (iv) the pregnant woman has a history of mental retardation or physical deformities such as spasticity or other genetic desease; and (v) any other condition as may be specified by the Central Supervisory Board designated by the Act.

- No person conducting prenatal diagnostic procedures shall communicate to the pregnant woman concerned or her relatives the sex of the fetus by words, signs,or in any other manner.

Following bodies are appointed for the supervision of enactment of PNDT act

i) Central Supervisory Board

ii) State Supervisory Board and Union Territory Supervisory Board

iii) Appropriate Authority and Advisory Committee

The Appropriate Authorities at district/tehsil level are the immediate supervisory authorities. They have powers in respect of the following matters, namely:

a) summoning of any person who is in possession of any information relating to violation of the provisions of this Act or the rules made there under;
b) production of any document or material object relating to clause (a);
c) issuing search warrant for any place suspected to be indulging in sex selection techniques or pre-natal sex determination; and
d) any other matter which may be prescribed.

Every Genetic Clinic/Ultrasonography Centre/ Genetic Counselling Centre/Genetic Laboratory has to have a registration with the Appropriate Authorities and shall be required to pay prescribed fees. Every such centre has to apply within 60 days of commencement of the Act. The Appropriate Authorities, after holding an enquiry and after satisfying itself that the applicant has compiled with all the requirements of the Act, shall grant a certificate. The certificate shall be displaced in a conspicuous place at the Centre. Every certificate shall be valid for five years.

There is a prohibition of advertisement relating to pre-natal determination of sex and punishment for contravention on any person or organisation involved in such advertisement shall be punishable with imprisonment for a term extending to 3 years and a fine which may extend to 10,000 rupees. Any subsequent conviction will lead to imprisonment of 5 years and the fine of Rs. 50,000.

The centre needs to maintain records in terms of different forms to be submitted to Appropriate Authorities. Form F containing the information on the men/women subjected to any pre-natal diagnostic procedure, and form G containing the consents of the men/women need to be maintained by the centre. Appropriate Authorities should maintain the record of Form H containing the details about the application by centres. The centres should send monthly report to the concerned Appropriate Authority. Every centre need to

display prominently a notice in English to effect that disclosure of sex of the foetus is prohibited under law.

There is a code of conduct to be observed by persons working at the centre. It includes mainly: (i) not engaging oneself or helping in sex determination; (ii) not employing unqualified people; (iii) not conducting the tests in place other than that registered to conduct or cause to conduct female foeticide.

The Appropriate Authorities have a power to inspect the centre and seal and seize any ultrasound machine capable of detecting sex of foetus used by any organisation, if it has not registered with them. The machines could be released if the organisation pays five times the registration fees to Appropriate Authorities. However, Retherford and Roy (2003) observe that, "The law contains loopholes. Government laboratories and clinics are monitored much more closely, than private laboratories and clinics, which are only required to register under the Act. Also genetic tests are monitored much more closely than ultrasound tests"

The law is easy to circumvent for both physicians and clients. The PNDT Act seems to have little impact on sex-selective abortions. Arnold, Kishor and Roy (2002) estimate indirectly that more than 100,000 sex-selective abortions, following ultrasound or amniocentesis, have been performed annually in India in recent years. Even if there are no data available directly on sex-selective abortions, there are number of indirect indicators on the basis of which one could estimate the extent of sex-selective abortions. The NFHS-II data on use of ultrasound facility and on sex ratio at birth provide useful clues pointing to existence of substantial number of sex-selective abortions (IIPS and ORC Macro, 2000).

The Census of India (2001) came up with shocking results of decline in sex-ratio, particularly of children aged 0-6 years and provided more direct evidence of sex-selective abortions. At the same time, the sonography centres grew like mushrooms all over the country. In 2002, registration of ultra sound sonography centres became compulsory under the PNDT Act. However, it might not have affected the conduct of sex-determination tests. It almost has become a money-making business. The genuine benefits in treatment and the money coming along with probably tempted the AYUSH

(Ayurvedic, Unnani, Siddha and Homeopathy) doctors to demand permission to allow them to use the sonography machines. Number of organisations negotiated with the MOHFW. Before allowing them to use the sonography machines, it was decided to get surveys done in selected states, mainly to know the extent of 'untrained' ownership and the purposes for which the sonographies have been carried out. Thus, the present study was assigned to us with the following objectives:

i) To know how many untrained doctors (allopathic and non-allopathic) are using ultrasound machines and for what purpose; and

ii) To analyse the secondary data on ultra sound sonography centres available with the Appropriate Authorities designated under the ACT.

Chapter scheme

The present report is organised in five chapters. The first chapter of the report briefly introduces the background for the PNDT Act, its salient features and the objectives of the study. Chapter 2 presents the distribution, type and qualification of the owners and operators of sonography centres in Maharashtra. The impact of ultra sound sonography centres on child sex ratio in Maharashtra is analysed in Chapter 3. Chapter 4 presents the findings of the survey of sonography centres in Maharashtra. Summary of the study and the recommendations arising out of the study findings are given in Chapter 5.

Chapter II

Ultrasound Sonography Centres in Maharashtra: Distribution, Type and Qualification of the Owners and Operators

As on September 30, 2004, Maharashtra had 4345 registered ultrasound sonography clinics/centres in the entire state and this number is increasing continuously as the new centres are being registered regularly throughout the state. Getting the total number of sonography centres registered in the state in one place was a difficult job. The information was not readily available with the State Family Welfare Bureau (SFWB), the state Appropriate Authority for implementing the PNDT Act, when we approached them. This indicates the lack of importance given for maintaining the data related to the registered sonography centres at one place. Upon our request, the letters were sent by the State Appropriate Authority to all the district Appropriate Authorities to supply the data on number of sonography centres with the qualifications of the owner of the centre and the operator of the sonography machine, and the type of centre. For this purpose the format supplied by the Ministry of Health and Family Welfare was sent along with the letter to collect the above data. We have received the necessary data from the district Appropriate Authorities in September 2004. Five districts (Chandrapur, Bhandara, Washim, Buldana and Nandurbar) did not send the details till we completed this report in spite of the reminders by the SFWB. These five districts together have 124 sonography centres (2.9 percent) and also come from the region where the number of sonography centres is very less in the state. The following section analyses the distribution, type and qualifications of the owners and operators of the sonography centres in Maharashtra supplied by the district Appropriate Authorities.

The sonography centres are unevenly distributed in the 35 districts of the state. Maharashtra's districts are further grouped into 8 health circles by the Directorate of Health Services for administrative purposes. Table 2.1 shows the uneven distribution of the ultrasound centres in the state by health circle. More than three fourth of the centres (78 percent) are registered in just four health circles (Mumbai, Pune, Nashik and Kolhapur circles). These four circles form as a contiguous region of Western Maharashtra. These four health circles together have 16 out of 35 districts of the state. It means that 78 percent of the sonography centres are located in just 46 percent of the districts of the state, a highly concentrated distribution. The distribution of the sonography centres shown as dots in the map clearly shows the concentration of centres in western Maharashtra (see

Appendix 1). It would be worthwhile to mention here that many of the low child sex ratio districts of the state come from this region of Maharashtra. Also the decline in child sex ratio between 1991 and 2001 is higher in this region compared to the rest of the regions of the state. Mumbai health circle alone has one third of the centres. Mumbai and Pune circle together have nearly half of the (48 percent) centres. Twenty-two percentage of the sonography centres are evenly distributed (5 to 6 percent) in rest of the four health circles (Nagpur, Akola, Aurangabad and Latur circles) located in central and eastern parts of Maharashtra. These four health circles together contain 19 districts of the state. It means that 22 percent of the sonography centres are located in 54 percent of the districts of the state.

Table 2.1. Number and percent of registered ultrasound sonography centres in Maharashtra by Health Circles as on September 30, 2004.

Sl.No.	Name of the Health Circle	No. of districts in the Health Circle	No. of registered ultrasound centres/clinics	Percent	Cumulative percent
1	Mumbai Circle	5	1421	32.70	32.70
2	Pune Circle	3	656	15.10	47.80
3	Nashik Circle	5	864	19.88	67.69
4	Kolhapur Circle	3	441	10.15	77.84
5	Narpur Circle	6	229	5.27	83.11
6	Akola Circle	5	220	5.06	88.17
7	Aurangabad Circle	4	238	5.48	93.65
8	Latur Circle	4	276	6.35	100.00
Total		35	4345	100.00	100.00

Source: State Family Welfare Bureau, Pune

Table 2.2 gives the distribution of the ultrasound centres in the Districts and Corporations of Maharashtra. It shows that in Central and Eastern Maharashtra (Nagpur, Akola, Aurangabad and Latur Circles) the number of centres is far less than the districts in Western Maharashtra. Also the sonography centres are concentrated in the bigger cities of the state. In the state as a whole, half of the sonography centres are located within the Municipal Corporation limits.

The districts are also listed in the descending order according to the number of registered centres in Table 2.3. It shows that just six districts (out of 35) of the state have half (49.8 percent) of the sonography centres and all these districts come from western Maharashtra. The population share of these six districts in the state is 38 percent. In 14 districts of the state the number of centres is more than 100 and 82 percent of the centres

Table 2.2. Number of registered ultrasound clinics/centres in the districts of Maharashtra as on September 30, 2004.

Health Circle	Sl. No.	Name of the district/ Corporation	No. of registered centres	Total in health circle
Mumbai	1	Raigad	106	
	2	Ratnagiri	56	
	3	Thane	170	
	4	Mumbai & Mumbai Suburb M. Corpn.	833	
	5	Navi Mumbai Municipal Corporation	71	
	6	Thane Municipal Corporation	86	
	7	Kalyan Municipal Corporation	77	
	8	Ulhashnagar Municipal Corporation	22	1421
Nashik	9	Ahmednagar	211	
	10	Dhule	54	
	11	Jalgaon	163	
	12	Nashik	84	
	13	Nandurbar	15	
	14	Nashik Municipal Corporation	129	656
Pune	15	Pune	160	
	16	Solapur	99	
	17	Satara	209	
	18	Pune Municipal Corporation	276	
	19	Pimpri-Chinchwad Municipal Corporation	45	
	20	Solapur Municipal Corporation	75	864
Kolhapur	21	Kolhapur	107	
	22	Sangli	106	
	23	Sindhudurg	47	
	24	Kolhapur Municipal Corporation	104	
	25	Sangli Municipal Corporation	77	441
Aurangabad	26	Aurangabad	27	
	27	Jalna	34	
	28	Parbhani	36	
	29	Hingoli	12	
	30	Aurangabad Municipal Corporation	120	229
Latur	31	Beed	61	
	32	Nanded	17	
	33	Latur	67	
	34	Osmanabad	27	
	35	Nanded Municipal Corporation	48	220
Akola	36	Akola	64	
	37	Amrawati	20	
	38	Buldhana	47	
	39	Yawatmal	37	
	40	Washim	14	
	41	Amrawati Municipal Corporation	56	238
Nagpur	42	Bhandara	19	
	43	Chandrapur	29	
	44	Gadchiroli	5	
	45	Nagpur	24	
	46	Wardha	23	
	47	Gondia	10	
	48	Nagpur Municipal Corporation	166	276
Total			4345	4345

Source: State Family Welfare Bureau, Pune

Table 2.3. Number and percent of registered ultrasound clinics/centres in the districts of Maharashtra, under PNDT Act, as on September 30, 2004.

Sl. No.	Name of the District	No. & % of registered sonography centres			Percent of population 2001	Chile sex ratio (0-6), 2001
		Number	Percent	Cmltive %		
1	Mumbai (Suburb)	546	12.57	12.57	8.88	919
2	Pune	481	11.07	23.64	7.47	906
3	Thane	426	9.80	33.44	8.40	933
4	Mumbai	287	6.61	40.05	3.34	898
5	Nashik	213	4.90	44.95	5.16	936
6	Ahmadnagar	211	4.86	49.81	4.23	890
7	Kolhapur	211	4.86	54.66	3.63	859
8	Satara	209	4.81	59.47	2.89	884
9	Nagpur	190	4.37	63.85	4.19	949
10	Sangli	183	4.21	68.06	2.67	850
11	Solapur	174	4.00	72.06	3.98	897
12	Jalgaon	163	3.75	75.82	3.80	867
13	Aurangabad	147	3.38	79.20	3.02	884
14	Raigarh	106	2.44	81.64	2.28	943
15	Amarawati	76	1.75	83.39	2.69	947
16	Latur	67	1.54	84.93	2.15	923
17	Nanded	65	1.50	86.43	2.96	944
18	Akola	64	1.47	87.90	1.68	936
19	Beed	61	1.40	89.30	2.23	898
20	Ratnagiri	56	1.29	90.59	1.75	954
21	Dhule	54	1.24	91.83	1.77	907
22	Sindhudurg	47	1.08	92.92	0.89	946
23	Buldana	47	1.08	94.00	2.30	915
24	Yavatmal	37	0.85	94.85	2.54	942
25	Parbhani	36	0.83	95.68	1.54	926
26	Jalna	34	0.78	96.46	1.67	914
27	Chandrapur	29	0.67	97.13	2.15	944
28	Osmanabad	27	0.62	97.75	1.52	927
29	Wardha	23	0.53	98.28	1.27	934
30	Bhandara	19	0.44	98.71	1.17	958
31	Nandurbar	15	0.35	99.06	1.35	966
32	Washim	14	0.32	99.38	1.05	921
33	Hingoli	12	0.28	99.66	1.02	935
34	Gondia	10	0.23	99.89	1.24	964
35	Gadchiroli	5	0.12	100.00	1.00	974
Total		4345	100.00	100.00	100.00	917

Sources: State Family Welfare Bureau, Pune. Directorate of Census Operations, Maharashtra. 2001.

in the state is located in these 14 districts itself. The population share of these 14 districts is 64 percent in the state. In all these districts the percent of sonography centres is higher than the percentage share of population in the state. All the districts in the central and eastern region of the state have less percentage of sonography centres than their population percentage. The table also reveals that, broadly, the districts with more than 100 sonography centres are distinctly having lower child sex ratio than the districts with less

(table 2.4 is given as a separate document)

than 100 sonography centres. The mean sex ratio for the districts with more than 100 sonography centres is 901 and for the districts with less than 100 sonography centres it is 937. This is a rough indication of higher availability of sonography centres and the decline in child sex ratio. Gadchiroli district with the smallest number of sonography centres (five) has the highest child sex ratio (974) in the state. Further, four districts, Gadchiroli, Gondiya, Nandurbar and Bhandara, with less number of sonography centres (less than 20) are having balanced child sex ratio (958 and above). Incidentally, these four districts also have a higher share of tribal population.

Type of sonography centres

The following section analyses the characteristics of the registered sonography centres. Type of centre, qualification of the owner and qualification of the operator of sonography machines are the characteristics analysed. Out of the 4345 sonography centres in the state, we have got the above information only for 4090 centres (94 percent) from the district Appropriate Authorities as few districts did not provide this information in spite of the reminders from the SFWB. Table 2.4 presents the details of type of centres and qualification of the owners and qualifications of the persons operating the sonography machines. Tables 2.5, 2.6 and 2.7 are extracted from Table 2.4 for easy readability.

Table 2.5. Type of ultrasound sonography centres in Maharashtra.

Sl. No.	Type of sonography centres	Number	Percent
1	Genetic Clinic	739	18.1
2	Genetic Laboratory	32	0.8
3	Genetic Counselling Centre	41	1.0
4	Ultrasound Clinic / Imaging Centre	2563	62.7
5	Private Hospital	528	12.9
6	Pathology Lab	3	0.1
7	Not Given	184	4.5
	Total	4090	100.0

Sonography centres are registered under different categories in the state (Table 2.5). However, most of these centres (63 percent) are registered as Ultrasound Clinic. Eighteen percent of centres are registered as Genetic Clinic. Ultrasound Clinic and Genetic Clinic together account for 81 percent of the centres in the state. Only very small percentage of the centres is registered as Genetic Laboratory (0.8 percent) and Genetic Counselling Centre (1 percent). Thirteen percent of the centres are registered as Private

Hospital. For nearly five percent of the centres the information was not provided by the district Appropriate Authorities. These categories are given by the district Appropriate Authorities at the time of registration. It appears that the Appropriate Authorities did not pay much attention at the time of registration to classify the centres in the proper way. Hence these classifications are not revealing the exact nature of the centres. However, we feel that Ultrasound Clinic and Genetic Clinic are basically same and known as Ultra Sonography Centres or USGs.

Qualifications of the doctors/persons owning the ultrasound sonography centres

As per the PNDT Act anyone can own a sonography centre provided that the persons who operate the machine must have the necessary training in conducting the test. Qualifications of the doctors/persons who own the ultrasound sonography centres are provided in Table 2.6. One third of the doctors/persons who own the sonography centres are Gynaecologists. Radiologists/Ultrasonologists own 21 percent of the centres. Nearly four percent of the centres are owned by MBBS doctors with training or experience in conducting sonography. These four categories together (Gynaecologists; Radiologissts / Ultrasonologists; MBBS doctor with training or experience) account for the 58 percent of the centres and can be considered as trained doctors/persons in ultrasound sonography. One third of the Gynaecologists who own the centres may be mainly using the sonography machines for obstetric purposes.

Table 2.6. Qualifications of the owners of the ultrasound sonography centres.

Sl. No.	Qualifications of the owners of the ultrasound sonography centres	Number	Percent
1	Radiologist/Ultrasonologist (MBBS+DMRD)	863	21.1
2	Gynaecologist (MBBS+DGO)	1341	32.8
3	MBBS doctor with training	39	0.9
4	MBBS doctor with experience	111	2.7
5	AYUSH/BAMS doctor employing qualified doctors	231	5.6
6	Others*	428	10.5
7	MBBS	146	3.6
8	Not given	536	13.1
9	Trust/Govt. Hospital	395	9.7
	Total	4090	100.0

*Gastroenterologist, Cardiologist, ENT specialist, Orthopaedics, M.D. Medicine etc. and Non-Medical Personnel

Doctors specialised in various other fields (Gastroenterologist, Cardiologist, ENT specialist, Orthopaedics, M.D. Medicine etc. and Non-Medical Personnel) own nearly 11

percent of the centres. Six percent of the centres are owned by the persons/doctors qualified in Indian system of medicine (AYUSH). Ten percent of the sonography centres are registered in Trust/Government Hospitals. The district Appropriate Authorities did not provide the qualification of the registered persons for 13 percent of the centres. We found that qualification of the owner of the centre was not at all provided in the registration form itself. Reported qualifications of the owners, as per the categories 1-4 in the table, broadly reveal that trained and qualified people own most of the centres (58 percent) in the state. Among the categories 5-8 in the table also some of them may be trained doctors in sonography. Hence, the true extent of centres owned by the trained doctors/persons will be slightly more than 58 percent. Similarly, the centres owned by the unqualified doctors (AYUSH) will also be more than the figures given in the table because, the qualification of the doctors/persons was not given 13 percent of the centres and 10 percent of the centres are registered with trusts/hospitals. Private Hospitals may be owned by the trained as well untrained persons/doctors. Leaving apart the cases with owners' qualification not given, it is observed that about 20 percent of the centres are with untrained owners.

Qualifications of the operators of the ultrasound sonography machines

As per the PNDT Act the doctors without any training or experience in the operation of the ultra sonography machines can register a sonography centre on their name. But, the person who operates the machine must have the necessary qualification/ training/experience to conduct the sonography tests. We have got the qualifications of the persons who operate the sonography machine from the Appropriate Authorities. The necessary data are given in Table 2.7 for the centres owned by the trained (self operated) as well as untrained (sonography machine operated by a qualified person employed by the owner) persons.

In the state as whole, 63 percent of the centres are 'self operated' i.e., owner himself operates the machine. The remaining 37 percent of the centres are owned by the persons who have employed the qualified persons to operate the machine. Out of these 37 centres, a few centres might have a qualified owner but they also employed sonologists. Leaving these cases, the remaining could be taken as with untrained ownership. Roughly, it could be estimated that about 30 percent of the centres are with untrained ownership. It means that the majority of the sonography centres in the state are registered/owned by the doctors/persons trained in conducting ultrasound sonography.

Table 2.7. Qualifications of the doctors using the ultrasound sonography machines in the centres owned by trained (Self Operated) and untrained (Centres Employing Other Doctors) persons/doctors.

Sl. No.	Qualifications of the doctors/persons using the ultrasound sonography machines	Sonography centre owned by			
		Trained Doctors *(Self Operated)*		Untrained Doctors *(Employing other doctors)*	
		No.	%	No.	%
1	Radiologist/Ultrasonologist (MBBS+DMRD)	813	31.8	1146	74.7
2	Gynaecologist (MBBS+DGO)	1135	44.4	237	15.6
3	MBBS doctor with training	23	0.9	5	0.3
4	MBBS doctor with experience	103	4.0	17	1.1
5	AYUSH/BAMS	5	0.2	-	-
6	Others*	235	9.2	66	4.3
7	MBBS	11	0.4	-	-
8	Not given	232	9.1	62	4.0
	Total	2557	100.0	1533	100.0
	% of trained and untrained doctors/persons	62.5	--	37.5	100.0

*Gastroenterologist, Cardiologist, ENT specialist, Orthopedics, M.D. Medicine etc. and Non-Medical Personnel

Qualifications of the doctors using ultrasound machine in the centres owned by trained doctors (self operated)

As we have seen earlier the trained doctors own 63 percent (2557 out of 4090) of the sonography centres in the state. Among the centres owned by the trained doctors forty-four percent of the doctors are gynaecologists. Gynaecologist mainly use the machine for obstetric and ante natal purposes. Another one-third of the trained doctors are radiologists/ultrasonologists. Gynaecologists and radiologists/ultrasonologists together dominate (76 percent) the ownership of trained "self operated" centres. Five percent of the trained owners are MBBS doctors with some training/experience in conducting sonography. Nearly 10 percent of the machines are owned by "other" doctors (other than gynaecologist and radiologists). Surprisingly 0.6 percent of the centres are owned by the unqualified doctors (MBBS and AYUSH/BAMS) as per the data given by the district Appropriate Authorities. This must have happened because of the wrong reporting in the registration forms. A will be reported in the later chapter, a few AYUSH doctors operating the machine were already found. Here also we did not get the qualification of the persons using the machine for nine percent of the centres. The qualifications of the doctors in the centres owned by the trained doctors broadly reveals that 81 percent of the sonography machines are operated by gynaecologists, radiologists/ultrasonologists and MBBS doctors with some training/experience in conducting sonography

Qualifications of the doctors using ultrasound machine in the centres owned by untrained doctors/persons (employing other doctors)

The qualifications of the doctors using the sonography machines in the centres owned by the untrained doctors/persons (employing other doctors) reveal that, in three-fourth of these centres radiologists/ultrasonologists operate the machines. Another sixteen percent of the centres have employed the Gynaecologist for operating the machine. Radiologists and Gynaecologists together operate the machine in 90 percent of the centres owned by the untrained doctors/persons. Four percent of the operators are "other" doctors and two percent are MBBS doctors with qualification/experience in operating sonography machines. For the remaining four percent of the centres we did not get the qualification of the doctors.

Qualifications of the persons using the sonography machines in the centres owned by trained and untrained persons reveals the following: (i) in the centres owned by the trained persons gynaecologist own large number of centres (44 percent) compared to the doctors with other qualifications; and (ii) in the centres owned by the untrained persons the radiologists/ultrasonologist are mainly (75 percent) employed to operate the sonography machine.

District-wise sonography centres owned by trained and untrained doctors/persons

Table 2.8 further classifies the sonography centres according to the qualifications of the owners for the districts of Maharashtra. The table reveals the following: (1) the sonography centres owned by the untrained persons are much higher in western Maharashtra compared to the other parts of the state; (2) the centres owned by the persons specialised in Indian System of Medicine (AYUSH) is also higher in western Maharashtra compared to the other regions of the state; (3) almost all the centres owned by the AYUSH doctors are located exclusively in western Maharashtra; (4) in the areas falling under the municipal corporation limits, majority of the sonography centres are mainly owned by the trained doctors; (5) AYUSH doctors mainly own their sonography centres outside of the municipal corporation areas i.e., AYUSH doctors exclusively operate in the smaller towns and interior areas of the districts; (6) sonography centres located in central and eastern parts of Maharashtra are mainly owned by the trained doctors and even among the centres owned by the untrained persons allopath doctors own most of the centres compared to the AYUSH doctors; and (7) very few AYUSH doctors own a sonography centres in central and eastern parts of Maharashtra.

Table 2.8. Ultrasound sonography centres owned by trained and untrained persons

Sl. No.	District	Trained	Untrained		NG	Total
			Allopath	AYUSH		
1	Pune	56	22	25	53	156
2	Pune M. Corp.	125	32	-	54	211
3	PCMC	25	6	1	2	34
4	Ahmednagar	101	44	41	2	188
5	Satara	105	26	26	44	201
6	Raigad	65	17	4	13	99
7	Kolhapur	24	7	9	62	102
8	Kolhapur M. Corp.	75	13	3	2	93
9	Sangli	67	16	21	-	104
10	Sangli M. Corp.	57	14	2	-	73
11	Aurangabad	16	8	2	-	26
12	Aurangabad M. Corp.	95	13	1	-	109
13	Solapur	59	16	22	1	98
14	Solapur M. Corp.	32	5	1	29	67
15	Nasik	41	18	21	2	82
16	Nasik M. Corp.	75	29	5	13	122
17	Mumbai & Mumbai SU	468	115	12	119	714
18	Ratnagiri	41	7	5	2	55
19	Ulhasnagar	15	1	-	-	16
20	Navi Mumbai M. Corp.	38	9	1	9	57
21	Thane	112	14	3	25	154
22	Thane M. C orp.	51	7	-	15	73
23	Kalyan-Dombivali M.Corp	54	11	-	2	67
24	Sindhudurg	14	15	15	-	44
25	Hingoli	11		1	-	12
26	Jalgaon	101	16	-	42	159
27	Dhule	37	6	-	9	52
28	Nagpur M. Corp.	121	5	-	30	156
29	Nanded	14	3	-	-	17
30	Parbhani	30	5	-	-	35
31	Beed	32	16	4	4	56
32	Gondiya	7	1	-	1	9
33	Yavatmal	29	7	-	-	36
34	Wardha	13	6	-	-	19
35	Osmanabad	15	9	1	-	25
36	Akola	49	7	1	1	58
37	Latur	41	20	3	-	64
38	Amravati M. Corp.	43	8	1	-	52
	Total	2354	574	231	536	3695
	Total percent	63.7	15.5	6.3	14.5	100.0

Multiple attachments of sonologists

Some sonologists are attached to more than one ultrasound centres. Either they carry their own mobile ultrasound machine or they use the fixed machine owned by the owner of the centre. This system effectively increases the number and spread of the registered centres in an area/region. Although this issue is not important at the state-level and may not have a significant role in influencing the functioning of the centres, it puts

forth interesting aspect of the functioning of sonography centres and hence we provide some information on the same in Table 2.9. It is observed that 46 doctors, in the state as a whole, are attached to 303 centres with an average of 6.6 attachments per doctor. The average varies between the districts/corporations. It is also observed that such multiple attachments are more common in the corporation areas. Truly speaking, the corporations are expected to have ample number of sonologists, while in the non-corporation areas, shortage could be experienced. Thus, the multiple attachments may not be out of shortage of sonologists. Then the question arises, are these multiple attachments really functioning? Or is it reported just to fulfil the requirement for registration? This alternative appears plausible at least in cases where the attachments are in the range of 8, 9, 10, 11 and what not? How is it possible to have attachments at these many places? During the field work we came across a few cases, where some person was shown as an appointed doctor for operating the sonography machine, but occàsionally, the owner, not trained in sonography, operates the machine. Another important aspect related to such multiplicity of attachment is the quality of work. One sonologist in Pune has his own centre reporting about 200-300 cases per month and is attached to 6 more places. Can anyone imagine that the doctor could give justice to his patients? We have a strong doubt about the genuine ity of functioning of such multiple attachments. We suggest that the appropriate authorities should investigate into such cases.

Table 2.9. Information regarding doctors attached to multiple (>=4) ultrasound sonography centres

Place	No. of doctors	No. of attachments	Average
Greater Mumbai MC	16	96	6.0
Navi Mumbai MC	4	30	7.5
Thane MC	4	34	8.5
Raigarh	1	8	8.0
Kalyan-Dombivali MC	3	15	5.0
Ulhas Nagar MC	1	4	4.0
Nashik MC	5	38	7.6
Nashik (Non-corporation)	2	16	8.0
Ahmednagar	3	24	8.0
Pune (Non-corporation)	2	11	5.5
Pune MC	1	6	6.0
Satara	1	5	5.0
Sangli	1	4	4.0
Latur	1	8	8.0
Nagpur MC	1	4	4.0
Total	46	303	6.6

Chapter III

Child Sex Ratio and Ultrasound Sonography Centres in Maharashtra

Sex ratio is an important social indicator to measure the extent of prevailing equality between men and women in a society and mainly reflect the sex differentials in mortality. Contrary to the universal pattern, sex ratio is unfavourable to women in India. Several reasons are cited for the consistently low levels of sex ratio and their further decline over the decades in India. Some of the important reasons discussed in the literature for the decline of sex ratio in India are: (1) neglect of girl child resulting in their higher mortality at younger ages, (2) high maternal mortality, (3) sex selective female abortions, (4) female infanticide, and (5) change in sex ratio at birth. The first part of the present chapter briefly looks at the sex ratio of child population in Maharashtra and the second part analyses the association/relationship between availability of sonography centres and child sex ratios at the district level in Maharashtra.

Sex ratio of children in the age group 0-6 in the districts of Maharashtra

During the last decade (1991-2001), India and all the neighbouring states of Maharashtra have shown rise in ***sex ratio of the total population*** but Maharashtra has shown a decline indicating worsening position of women in the state. As per 2001 Census, the sex ratio of the total population of Maharashtra (922 females per 1000 males) is not only lower than all India sex ratio (933) but it has been declining from 936 in 1961 to 922 in 2001. It is, however, the ***sex ratio of the child population*** which causes more concern in Maharashtra, as this group is not affected by migration. A decline in the sex ratio in the age group 0-6 points towards the attitude and outlook towards the girl child. Universally, the sex ratio at birth is favourable towards males and usually falls between 943-952 girls per 1000 boys (or 105-106 male babies per 100 female babies). As per the 2001 census sex ratio of the child population of India (927 girls per 1000 boys) is much lower than the universal sex ratio at birth. In Maharashtra, the child sex ratio has declined by 29 points from 946 in 1991 to 917 in 2001. It is not only much lower than the universal sex ratio at birth, it is also much lower than those for the all four south Indian states (Kerala 963, Andhra Pradesh 964, Karnataka 949 and Tamil Nadu 939) and Madhya Pradesh (931). Of course, it is much better than the states like Punjab (793), Himachal Pradesh (897), Haryana (820) and Gujarat (878). The drastic decline in sex ratio of child population suggests the possibilities of neglect of girl child leading to higher mortality among girls

than boys and practice of female foeticide (Parasuraman, 2001; Kulkarni, 2001; Premi, 2001; Bhat, 2002).

District-wise sex ratio of the child population shows that the sex ratio varies between 974 in Gadchiroli and 850 in Sangli (Table 3.1). The districts with higher sex ratio mainly come from eastern and central regions of Maharashta and most of the low sex ratio districts come from western Maharashtra. Mainly the prosperous districts/areas of

Table 3.1. Sex ratio of child population in the age group 0-6, Maharashtra, 2001

Sr. No.	District	Sex ratio of child population in the age group 0-6		
		Total	Rural	Urban
1	Nandurbar	966	976	895
2	Dhule	907	914	888
3	Jalgaon	867	865	871
4	Buldana	915	921	890
5	Akola	936	941	927
6	Washim	921	917	945
7	Amrawati	947	953	935
8	Wardha	934	946	898
9	Nagpur	949	964	939
10	Bhandara	958	961	939
11	Gondiya	964	966	946
12	Gadchiroli	974	976	941
13	Chandrapur	944	965	897
14	Yavatmal	942	948	910
15	Nanded	944	948	929
16	Hingoli	935	938	919
17	Parbhani	926	931	915
18	Jalna	914	913	917
19	Aurangabad	884	886	882
20	Nashik	936	948	916
21	Thane	933	971	915
22	Mumbai (Suburb)	919	-	919
23	Mumbai	898	-	898
24	Raigarh	943	952	914
25	Pune	906	912	900
26	Ahmadnagar	890	892	878
27	Beed	898	897	898
28	Latur	923	926	912
29	Osmanabad	927	933	895
30	Solapur	897	890	914
31	Satara	884	888	857
32	Ratnagiri	954	959	911
33	Sindhudurg	946	948	925
34	Kolhapur	859	870	832
35	Sangli	850	850	851
	Maharashtra State	**917**	**923**	**908**

Source: Director of Census Operations, Maharashtra. 2001.

Maharashtra have worst sex ratios e.g., Sangli (850), Kolhapur (859), Jalgaon (867), Aurangabad (884), Satara (884), Ahmadnagar (890), Solapur (897), Beed (898), Mumbai (898), Pune (906) and Dhule (907). The sex ratio of children in the entire Pune region is very much unfavourable to females (below 900). On the contrary, the backward/tribal districts like Gadchiroli (974), Nandurbar (966), Gondiya (964) and Bhandara (958) have higher sex ratios in the state.

District-wise sex ratios of child population in rural and urban areas are also given in Table 1. It shows that the sex ratio in urban areas of Maharashtra (908) is 15 points lower than in rural areas (923). Except five districts, in all districts of Maharashtra, the urban sex ratios are lower than the rural sex ratios. In 15 districts of the state the urban sex ratio is 25 points lower than the rural sex ratio.

Table 3.2 gives the range of sex ratio for the districts of Maharashtra. As mentioned above, the child sex ratio in the range of 943 to 952 is considered as ideal because sex ratio at birth is 105-106 male babies per 100 female babies (100/106 = .943; 100/105 = .952). Anything below this range is considered to be a below normal sex ratio. The table shows that sex ratio is above 943 only in 11 districts of the state. It means that only in 11 districts of the state the sex ratio of child population is favourable towards females and in the remaining districts it is unfavourable. In nine districts, it is below 900 indicating the severe imbalance of girls in these districts. In all, in 69 percent of the districts the sex ratio is unfavourable to female children.

Table 3.2. The range in child sex ratio in the districts of Maharashtra, 2001

Maharashtra/ Region	Distribution of districts according to child sex ratio			Total no. of districts
	Below 900	900-942	943 and above	
Total	9 (25.7)	15 (42.9)	11 (31.4)	35 (100)
Rural	8 (24.2)	10 (30.3)	15 (45.5)	33* (100)
Urban	14 (40.0)	19 (54.3)	2 (5.7)	35 (100)

* Mumbai and Mumbai Suburb districts are completely urban.

The range in sex ratio is also given for rural and urban areas of the district in Table 3.2. Rural sex ratio is above 943 in 15 districts (46 percent) whereas only in two districts (6 percent) the urban sex ratio is above 943. It means that the imbalance of female children in urban areas is prevailing throughout the state. The child sex ratio is below 900 in one-fourth of the districts in rural areas and 40 percent of the districts in urban areas. The

classification reveals that in two thirds of the districts the child sex ratio is unfavourable to female children and it is further worst in urban areas of the districts compared to the rural areas. The abnormally very low sex ratios in urban areas of Maharashtra goes beyond the limit as one would normally expect given the higher literacy and awareness in urban areas compared to the rural areas.

Table 3.3. Change in child sex ratio between 1991 and 2001, by districts.

Sl. No.	District	Sex ratio of child population in the age group 0-6		Change between 1991 to 2001
		1991	2001	
1	Sangli	924	850	-74
2	Kolhapur	931	859	-72
3	Ahmadnagar	949	890	-59
4	Jalgaon	925	867	-58
5	Satara	941	884	-57
6	Aurangabad	933	884	-49
7	Mumbai	942	898	-44
8	Beed	939	898	-41
9	Dhule	947	907	-40
10	Solapur	935	897	-38
11	Jalna	951	914	-37
12	Pune	943	906	-37
13	Parbhani	956	926	-30
14	Buldana	945	915	-30
15	Latur	947	923	-24
16	Chandrapur	965	944	-21
17	Osmanabad	947	927	-20
18	Washim	941	921	-20
19	Yavatmal	961	942	-19
20	Thane	952	933	-19
21	Raigarh	961	943	-18
22	Nashik	954	936	-18
23	Hingoli	953	935	-18
24	Wardha	952	934	-18
25	Sindhudurg	963	946	-17
26	Nanded	960	944	-16
27	Gondiya	978	964	-14
28	Nandurbar	977	966	-11
29	Mumbai (Suburb)	930	919	-11
30	Ratnagiri	961	954	-7
31	Gadchiroli	980	974	-6
32	Bhandara	964	958	-6
33	Amrawati	950	947	-3
34	Nagpur	951	949	-2
35	Akola	929	936	+7
	Maharashtra	946	917	-29

Source: Director of Census Operations, Maharashtra. 2001.

Decline in child sex ratio between 1991 and 2001

Comparison of *sex ratios of total population* of 1991 and 2001 in the state shows that 23 districts have registered a decline in sex ratio and 10 districts have registered an increase (Directorate of Census Operations, Maharashtra, 2001). But the comparison of *sex ratios of child population* shows that every single district had experienced a decline except Akola where it increased by 7 points (Table 3.3). The extent of decline is more than 40 points in 8 districts and in all these districts sex ratio is below 900. The districts which have experienced higher magnitude of decline already had a lower sex ratio in 1991. The range between highest and lowest child sex ratio has increased significantly between 1991 and 2001 in the state. The range between highest (Gadchiroli, 980) and lowest (Sangli, 924) child sex ratio in 1991 is 56 points whereas this range has increased to 124 points in 2001 (Gadchiroli, 974 and Sangli 850). Gadchiroli experienced a decline of 6 points and Sangli experienced a decline of 74 points from 1991 to 2001. The decline in sex ratio from 1991 to 2001 generally goes down if one travels from west to east of the state with few exceptions (Sindhudurg and Raigad). The developed districts of the state had experienced higher magnitude of decline compared to the less developed districts. The magnitude of the decline in the entire Pune region is alarming.

Sex ratio of child population in the Municipal Corporations of Maharashtra

Maharashtra has 15 Municipal Corporations (MC) in the state. Sex ratios of child population in the MCs are given in descending order in Table 3.4. Out of the 15 MCs only three (Amravati, Nagpur and Nanded) are from the central and eastern regions of the state and the remaining 12 are from the western regions. It shows that the child sex ratio for the MCs is 910, which is lower than the child sex ratio for the entire state (917) and much lower than the child sex ratio for rural areas of the state (923). Child sex ratio of MCs is comparable with the urban child sex ratio of the state (908). Except Amravati MC, the child sex ratio in all the remaining 14 MCs is below 943. In six MCs the child sex ratio is below 900. Child sex ratio is below 930 in all the MCs from western regions. Child sex ratios in MCs indicate the severity of the discrimination against female children in the bigger cities of the state which goes contrary to the expectations.

explains nearly half (R^2: 48 percent) of the variance in child sex ratio. The regression analysis shows that the two variables representing the availability of the sonography centres significantly reduce the child sex ratio at the district level in Maharashtra. It means that the further spread of the sonography centres in the state will reduce the sex ratio further. The graphs 1 and 2 with the regression line show these results.

Table 3.9. Regression analysis of child sex ratio and availability of sonography centres in Maharashtra.

Regre-ssions	Dependent variable	Independent variable	Regression Coeffcient	t	R^2	N
1	Child sex ratio	No. of USGs	-0.289***	4.663	.43	31
2	Child sex ratio	No. of USGs/1000 popn	-927.742***	5.465	.48	35
3	Decline in child sex ratio	No. of USGs	0.174***	4.095	.37	31
4	Decline in child sex ratio	No. of USGs/1000 popn	523.857***	4.222	.35	35
5	Child sex ratio in M.Corp	No. of USGs/1000 popn	-443.276**	2.751	.37	15

Number of sonography centres and decline in child sex ratio between 1991 and 2001

We have seen that the number of sonography centres have significant negative effect on child sex ratio. This makes us to think that the decline in sex ratio is due the availability of sonography centres. Hence, in place of child sex ratio we have used the decline in child sex ratio from 1991 to 2001 as the dependent variable. The relationship between the number of sonography centres and the decline in sex ratio is positive at one percent level of significance i.e., the increase in sonography centres has significantly increased the decline in child sex ratio in Maharashtra. Thirty-seven percent of variance in the decline in child sex ratio is explained by the number of sonography centres. The regression result for the effect of number of centres per 1000 population on the decline in sex ratio is also positive and significant at one percent level. This regression explains the 35 percent variance in decline in sex ratio in the state. The graphs 3 and 4 with regression line show these effects.

Number of sonography centres and child sex ratio in Municipal Corporations (MCs)

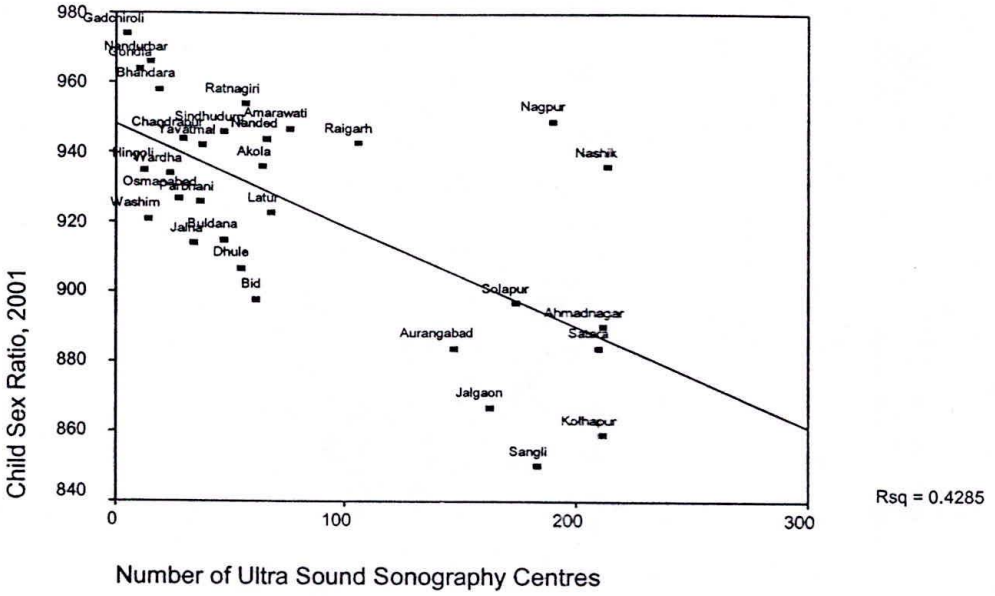
The regression of child sex ratio in 15 MCs of Maharashtra and number of centres per 1000 population in MCs is also given in Table 12. It confirms the results obtained for the districts, i.e., the relationship between the number of centres per 1000 population in MCs and sex ratio in MCs is significantly negative. Hence, the increase in the further availability of sonography centres in the MCs will contribute for the further decline in sex

ratio. The sex ratios in MCs are already very low at the level of 910 female children per 1000 male children. The graph 5 shows the regression line. The correlation and regression analyses at the different levels of aggregation (districts, corporations and tehsils) confirm the negative relationship between the availability of sonography centres and child sex ratio in Maharashtra.

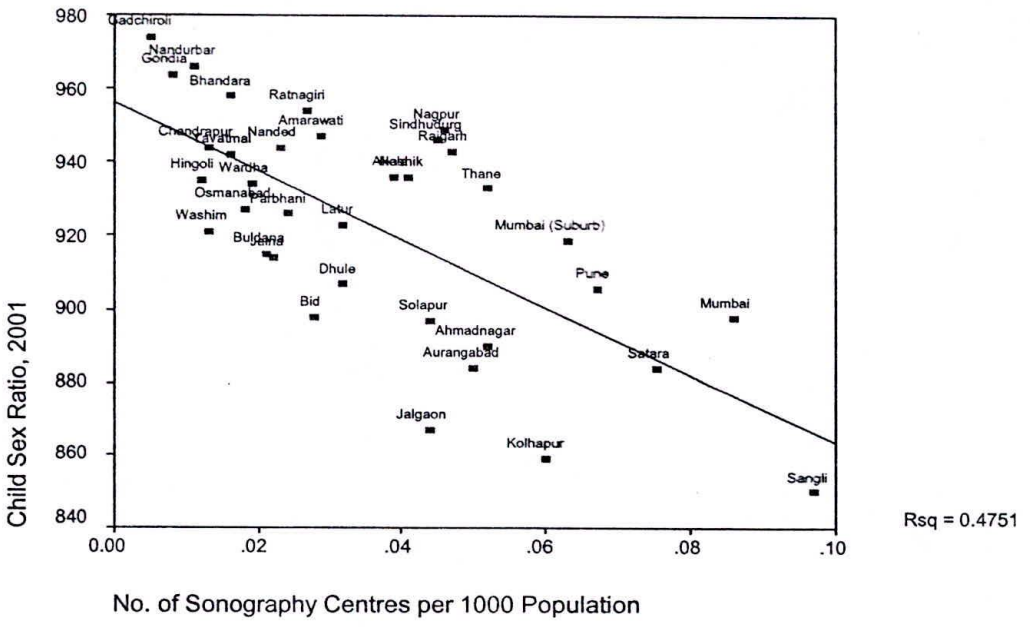
Limitations of the analysis of association/relationship between child sex ratio and number of sonography centres

The above associations/relationships should be treated with caution as the reference period for the data on child sex ratio and sonography centres are some what different. Figures for child sex ratio come from the 2001 census. The number of sonography centres is pertaining to the updated figures for September 2004. We do not have the data on number of sonography centres in 2001. Obviously some of the sonography centres were registered after the completion of the 2001 census. Only after the implementation of the compulsory registration of sonography centres under the PNDT act in 2002 the data is available with the Appropriate Authorities. In spite of this limitation, the correlation between the number of sonography centres and child sex ratio in the districts reveals the negative association between these two variables. Similarly, availability of sonography centres and the extent of decline in child sex ratio are positively associated.

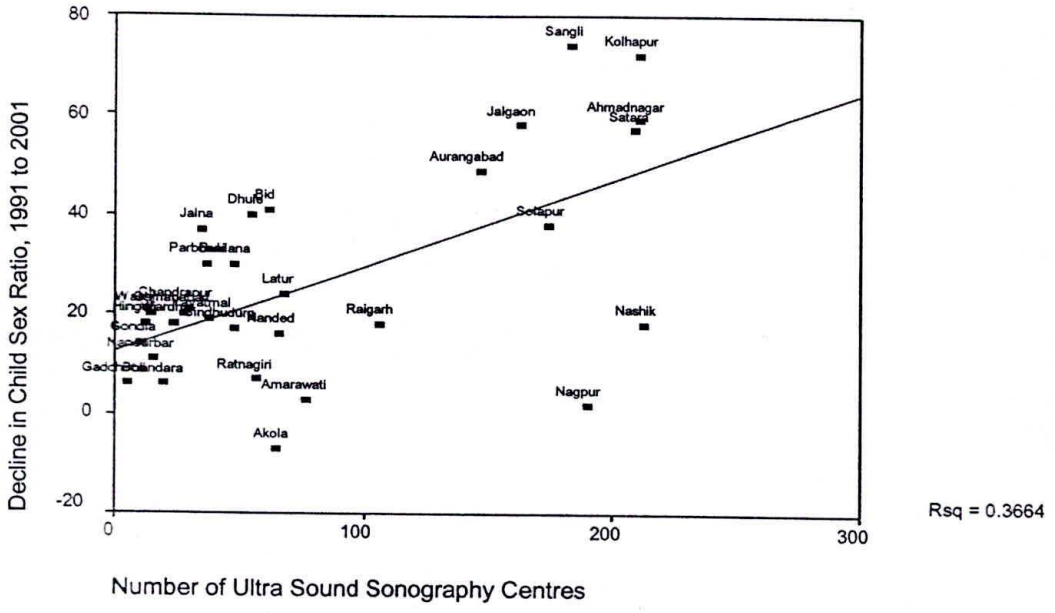
Graph 3.1. The relationship between child sex ratio (total) and number of sonography centres in the districts of Maharashtra (n = 31).



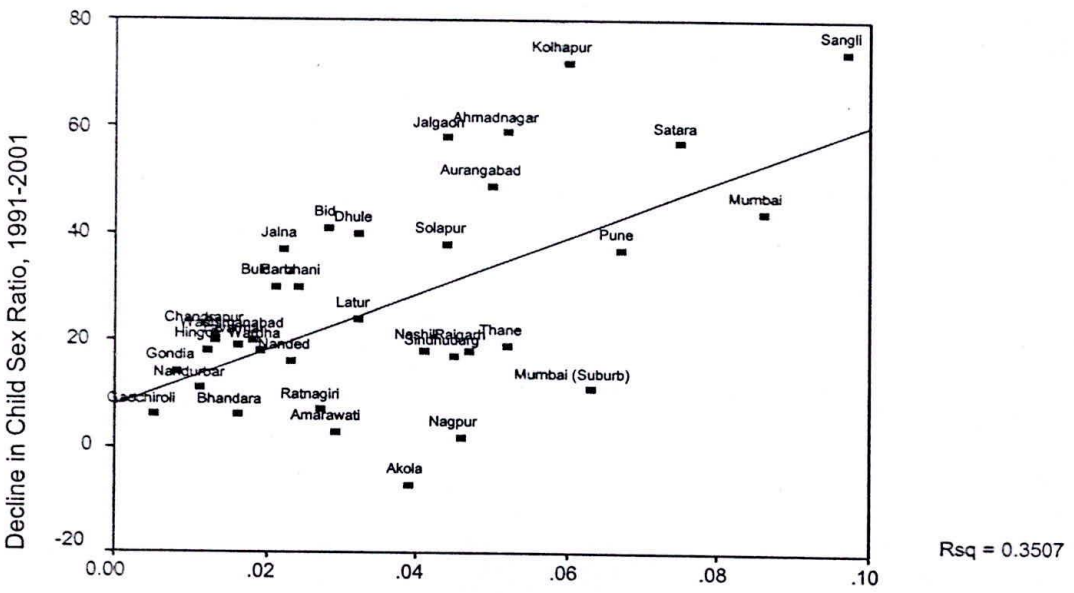
Graph 3.2. The relationship between child sex ratio (total) and number of sonography centres per 1000 population in the districts of Maharashtra (n = 35).



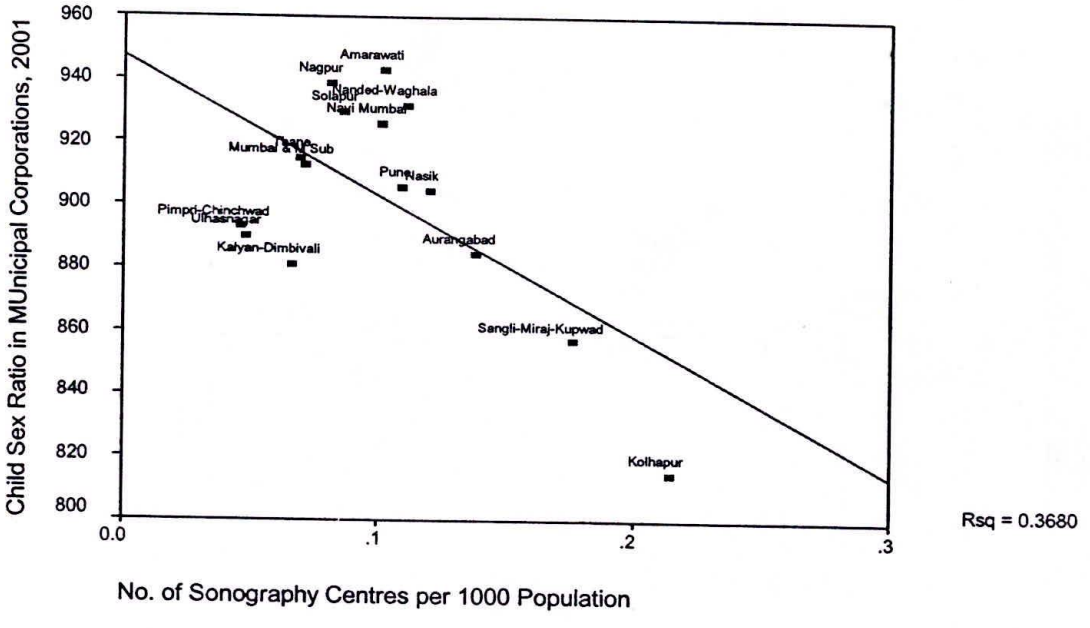
Graph 3.3. The relationship between decline child sex ratio between 1991 and 2001 and number of sonography centres in the districts of Maharashtra (n = 31).



Graph 3.4. The relationship between decline child sex ratio between 1991 and 2001 and number of sonography centres per 1000 population in the districts of Maharashtra (n = 35).



Graph 3.5. The relationship between child sex ratio (2001) in Municipal Corporations of Maharashtra number sonography centres per 1000 population (n = 15).



Chapter IV

Findings of the Survey of Ultrasound Sonography Centres in Maharashtra

As mentioned in the introductory chapter, this survey has been assigned to Population Research Centres with the objectives of knowing the extent of ownership of sonography centres by untrained persons and of knowing the purposes for which the machines have been used. As per the minutes of the meeting held on April 7, 2004 at the Ministry of health and Family Welfare (MOHFW), it was decided that:

i) The data already available with the Appropriate Authorities (Civil Surgeons/ Chief Medical Officers) about the sonography centres should be analysed;

ii) About 200 centres (run by untrained persons) in a state should be visited and a small questionnaire be canvassed;

iii) For selecting a sample of centres, it was decided that the survey should be conducted in those districts of the state which account for 75-80 percent of the registered centres; and

iv) Few AYUSH (Ayurvedic, Unnani, Siddha and Homeopathic) doctors of integrated medicine may also be surveyed to know whether they are desirous of having an ultrasound sonography machine for their line of treatment. About 50-100 centres in a state may be surveyed.

Thus, in brief, about 200 centres run by untrained persons, and about 50-100 non-allopathic doctors were supposed to be the sample-size for our study. At the outset, getting the sampling frame for centres run by untrained persons and selecting a proper sample seemed easier, while there was no sampling frame for selecting AYUSH doctors.

However, even for centres with untrained owners we came across a number of difficulties in getting the sampling frame for centres run by untrained doctors and selecting a proper sample. They are as follows:

i) The lists of sonography centres were not available with the state Appropriate Authority (i.e. SFWB, Pune). Sometimes they were not available even with the Civil Surgeons, who are the appropriate authority for the district. Occasionally, our

field team had to visit the rural hospitals at tehsil level to get the basic data, which formed the sampling frame for the survey.

ii) For Mumbai Corporation, which has more than 800 sonography centres, detailed data were not available with the corporation office. Our field team had to visit 24 ward offices. One who has visited Mumbai, could imagine the amount of efforts put in by us just to get the sampling frame. Apparently this was not the problem with other states. The concerned officials stated that since Maharashtra Government has appointed the tehsil officials as appropriate authorities they are able to identify sonography centres even in interior areas, but as an effect, sometimes the records are not sent to the district authorities. On the other hand in other states the appropriate authority is up to district level and hence the data have to be with the Civil Surgeons.

iii) For selecting a sample of centres run by untrained persons, we needed information on qualification of the owner. Surprisingly, the application form to be filled by the owner does not ask for the qualification of the owner and hence the summarised information also does not give details needed for sampling. We had to look into each and every file to see whether any degree certificate of the owner is attached to the application form or whether his signature carries the stamp revealing his qualification. Even after doing all this investigation, we have not been able to get complete sampling frame.

iv) In order to save time and money (which was quite meagre, looking to the number of centres for Maharashtra (4350 approximately)), we had decided to collect the basic data regarding centres, select the sample and do the survey in one visit to the district. However, this could not be done firstly, because of the problems stated above, and secondly, the MOHFW requested us to collect the basic data in the first round and to conduct the survey in another round. We had communicated to MOHFW about the difficulties in getting the basic data. We also had appraised the MOHFW officials about the problems in a meeting held at SFWB, Pune. As a consequence, the officials at SFWB, Pune were requested to help us in this matter. The SFWB officials invited the civil surgeons of all the districts; along with the

basic data on sonography centres. This helped us in getting data for most (not all) of the districts. However, by then we had started our field work.

v) As a proper sampling procedure, the sample size, which was fixed at 200 in the first place, should have been allocated in proportion to the number of centres run by untrained persons at the district level. However, the data were not available to us for all the districts to start with and even if they were available, information on owners' qualification was missing in many cases. Thus, a proper sampling procedure could not be followed. There was one more factor, which disturbed our sampling plan. As per the e-mail dated July 14, 2004 the MOHFW asked us to do the survey of 400 centres. Further, as we were proceeding towards the concluding part of our field-work, we received a communication from MOHFW, saying that we also should carry out a survey of 'some' centres run by 'trained doctors'. All these problems have disturbed our sampling plan.

vi) The field-work in Mumbai was the most difficult part. Firstly, for getting the information on owners' qualification and for getting correct addresses, telephone numbers etc, a visit to concerned ward-office was necessary. Secondly, the distances, as is known, are quite large. Thirdly, the doctors, most of them, being very busy it was difficult to get their appointments and fourthly, some of them did not give the information readily.

vii) Since the area for field-work was restricted to western Maharashtra (covering 80 percent of the total sonography centres in Maharashtra) and since, as mentioned above the sample size and composition changed frequently, and further since field work in Mumbai posed several problems, we were finding it difficult to complete the target of 400 centres run by untrained persons. We could, at the end, complete the field work of about 380 centres (including some run by trained doctors). To repeat, the district-wise number of surveyed centres is not in proportion to the total number of centres in the district.

viii) Some of the surveyed centres were run by cardiologists and ideally should not have been brought under the PNDT Act. However, since they are registered under the

Act and since according to the definition the 'cardiologist' is not trained, the centres came under our survey. We have excluded them from the analysis.

ix) Some of the surveyed centres are run by doctors with MBBS degree and some training (not necessarily recognised) or little experience. We have clubbed them under a separate category called "not properly qualified or trained'.

As mentioned previously, there was no sampling frame available for a survey of 'AYUSH' and other untrained doctors, desirous of using a machine. The MOHFW had suggested that the field team should, on their own, enquire about such people and visit them. However, we found that this may not be a proper procedure. Alternatively, we tried a different approach. In Pune, we have the office of the National Integrated Medical Association (NIMA), Pune Branch. We came to know that this association of Non-allopathic doctors had played an active role in the negotiations with the MOHFW regarding the demand for permission to operate sonography machines. We contacted the chairman and vice-chairman of this association (NIMA) and obtained a list of AYUSH doctors registered with NIMA. The Pune branch of NIMA has 400 AYUSH doctors registered with it. From this list we prepared a list of about 100 hospitals of ISM & Homeopathy. This became the sampling frame for the survey of desirous doctors. We tried to contact them through personal visit, telephonic contact or by post. The response was not bad. Out of about 100 doctors, about 80 doctors could be contacted and out of them 52 are desirous of using the machine. A small schedule was filled for these people.

Findings of the Survey of Ultrasound Sonography Centres run by Untrained Doctors

As per the guidelines of MOHFW, a schedule was supposed to be administered to the doctors. The questionnaire contained questions on type of machine, registration number, qualification of the operator, number of referrals by both allopathic and non-allopathic doctors, the purpose (obstetric/non-obstetric) of sonography, the classification of obstetric sonographies by trimesters, etc. With a purpose of assessment of observance of PNDT act, we had prepared a check-list about maintenance of records, sending timely reports, supervisory visits, etc. The field work for the study was carried out during the months of August-November 2004.

We start with the sample composition. Table 4.1 gives the same. As mentioned previously, the sampling frames could not be prepared accurately and hence no statements about the sampling fraction can also be made. However, roughly it could be estimated that there were about 1100 centres run by untrained doctors in Western Maharashtra (including Mumbai, Konkan, Khandesh, Pune division and Aurangabad) and we have tried to cover about 300 in our sample survey. It is broadly observed that in the corporation areas, the proportion of centres with untrained owners is lower, while in the non-corporation areas, the same is higher. For instance, in the district of Pune, it is about 20 percent, while in the Ahmednagar district, it is about 46 to 50 percent. This trend is in the expected direction, since generally, the proportion of untrained doctors (untrained in sonography) is expected to be higher in rural areas/small towns.

Table 4.1 Classification of centres by district and training status of the owner of the centre

Sr. No.	District	Training Status of the owner			Total
		Trained	Untrained	Not properly qualified/trained	
1	Mumbai	4	37	2	43
2	Thane	2	27	-	29
3	Raigad	1	5	1	7
4	Sindhudurg	-	5	-	5
5	Nashik	6	26	1	33
6	Jalgaon	5	13	4	22
7	Ahmednagar	4	27	1	32
8	Pune	15	48	-	63
9	Satara	11	14	4	29
10	Miraj	-	-	1	1
11	Sangli	7	22	5	34
12	Solapur	6	19	5	30
13	Kolhapur	5	17	4	26
14	Aurangabad	3	15	-	18
Total		69	275	28	372

Table 4.2 gives the information on the status of the centre, type of machine and year of installation and cost of the machine. Out of 372 centres, 297 i.e. about 80 percent of the centres are attached to hospitals. This information is important in the context of access to the facilities. If 'sonography' has an important role in current pattern of treatment, the attachment of the centre to the hospital is beneficial both to doctors and patients. On the other hand, for the general practitioners, particularly from ISM and Homeopathy, individual centres are essential, since centres attached to hospitals do not generally accept referrals and provide the services only to their own clients. In this

context, it is observed that for the cities like Mumbai and Pune the proportion of independent centres is higher. For instance, in Mumbai, the proportion of independent centres is 65 percent, while the same for districts with no big city, say Satara, is 3 percent.

Table 4.2. Classification of ultrasound sonography centres by its functional status, kind of machine, year of installation of machine and cost of machine.

Classification of ultrasound centre	Training Status of the owner			Total
	Trained	Untrained	Not properly qualified/trained	
Functional status				
Attached to hospital	50	219	28	297
Separate Unit/centre	17	54	-	71
Not Given	2	2	-	4
Total	**69**	**275**	**28**	**372**
Kind of machine				
Fixed	63	207	28	298
Mobile	3	40	-	43
On-call	2	25	-	27
Not Given	1	3	-	4
Total	**69**	**275**	**28**	**372**
Year of installation				
1980	1	-	-	1
1987	1	-	-	1
1988	-	1	-	1
1989	-	2	-	2
1990	1	-	-	1
1991	-	-	1	1
1992	-	5	-	5
1993	1	4	1	6
1994	-	2	-	2
1995	-	6	2	8
1996	4	6	-	10
1997	3	6	2	11
1998	2	15	4	21
1999	10	23	-	33
2000	6	29	4	39
2001	21	43	3	67
2002	13	61	5	79
2003	3	36	3	42
2004	3	17	1	21
Not Given	-	19	2	21
Total	**69**	**275**	**28**	**372**

In the second panel of the table, we find the classification of centres by type of machine (fixed, mobile or on call). It is observed that about 80 percent of the centres are having fixed machines, while about 12 percent of the centres function with 'mobile'

machines. It is further observed that when the owner is trained, the mobile/ on call machines are least used (7 percent) while, with 'untrained' owner, the use increases to 25 percent. Is it an indication of the situation that 'untrained' owners (some of them being ISM & H doctors in small towns) are not in a position of investing in the machine and hence have accepted the alternative of an operator with a 'mobile' machine on fixed days. If this practice increases, we might face a situation described as 'Doctors are carrying the machines to interior areas and the villagers are having the benefits'. One would have liked to see this dream come true, if it was for provision of general health services. But it has happened only for sonography. What could be the reason? The obvious answer is 'money'. The money involved in the practice of 'sonography' is definitely much much higher. For instance, the simplest sonography is done at the cost of Rs. 300. Further, the practice is very clean and safe; no infections, no risk, no emergencies, and no tensions. It is just a little space and an appointed qualified doctor that would fetch a fair amount of monetary benefits.

The information on year of installation could be helpful in assessing the trend of 'untrained ownership'. The third panel in Table 4.2 gives this information. Few interesting observations emerge from this table.

i) Before the Act in 1994, 12 centres (out of 275) were functioning with an untrained owner, while among the 69 centres with trained owners, there were 4 centres functioning even before 1994. This indicates the untrained ownership is not a new phenomenon.

ii) After the compulsory registration initiated in 2002, the number of centres with untrained owner is 114 (i. e. 40 percent), while the same proportion for centres with trained owner is 19 out of 69 (i.e. 30 percent). Although, the proportions are based on not necessarily random samples, the findings are indicative of strengthening of the untrained ownership. What will be the consequences of such a trend? Firstly, in case of untrained ownership, the sonography services are made available through appointed operators and hence will be limited. Secondly, in absence of the operators, the owners may use the machine. During our field-work we have got some evidence in support of the above statement. As far as the untrained Allopathic (doctors) owners are concerned, we expect that their training

as medical graduates or postgraduates gives them adequate grounding so as to be able to carry out the sonography tests. But there could be reservations about AYUSH doctors owning the centres. In fact, our field team had come across a couple of AYUSH doctors owning and also operating the machine. By law, AYUSH doctors are not allowed to use the machine. But thanks to the Appropriate Authorities, the concerned doctors are using the machine openly.

Type of ultrasound sonography machine and cost of machine

Being non-technical persons, we do not intend to say anything about the type of the machine in specific terms. However, just to have an idea, we give hereby the different types of machines used by the respondent. Table 4.3 gives the information.

Table 4.3. Distribution of ultrasound machines by their make.

Machine Make	Frequency	Machine Make	Frequency
GE & Wipro	94	Acuson	5
L&T	67	Esaote	5
Toshiba	47	Schimatzu	5
Aloka	35	BPL	4
Medison	19	Toshbro	3
ATL & Ultra Mark	17	NA	4
PMS India	15	NG	11
Siemens	11	Other	22
Fukuda	8	Total	372

The figures clearly show that the machines manufactured by GE or Wipro and L&T seem to be the more commonly used machines. Table 4.4 gives the classification of the machines by the approximate cost reported by the owners. It is observed that the median cost is around 4-5 lakhs. Thirty two respondents (9 percent) own machines costing more than 10 lakhs. In short, having a sonography machine is definitely a costly affair.

As the next panel of Table 4.4 shows, the cost of the machine has increased over time, as expected. How do we interpret these facts? One obvious implication is that unless the owner is able to use it frequently, it might not be possible to recover the cost. But surprisingly, the performance at least of the untrained owners is very poor like one sonography a day on an average. It implies very weak chances of recovering the cost. In our opinion doctors cannot take chances like this. Thus, either the performance is under reported or the buyers of the machine do not find the cost heavy. The third alternative is the recovery through the exorbitant charges, which could be demanded in case of sex-

determination. Although PNDT act is being implemented and we can not have direct evidence of sex-determination there is enough indirect evidence to show that sex-determination is being done. The proof of decline in child sex-ratio is a very convincing reflection of the sex-determination tests.

Table 4.4. Approximate cost and year of installation and average cost of the machine

Approximate cost of the machine	Frequency	Percent
< 1 Lakh	10	2.7
1 – 2 Lakh	21	5.6
2 – 3 Lakh	22	5.9
3 – 4 Lakh	67	18.0
4 – 5 Lakh	63	16.9
5 – 6 Lakh	47	12.6
6 - 7 Lakh	21	5.6
7 – 8 Lakh	16	4.3
8 – 9 Lakh	2	0.5
9 - 10 Lakh	1	0.3
10 – 15 Lakh	11	2.9
15 – 20 Lakh	11	2.9
20 – 25 Lakh	6	1.6
25 – 30 Lakh	4	1.1
Not Given	71	19.0
Total	373	100.0
Year of Installation	Average cost of machine (in Rs. Lakhs)	
1980 – 90	4.71	
1991 – 95	4.41	
1996 – 00	5.60	
2001	5.72	
2002	4.25	
2003	7.51	
2004	6.64	

In this context, it could be worthwhile to look into the classification of the owners by system of medicine. It is observed that 113 out of 275 (i.e. 40 percent) are AYUSH doctors (Table 4.5). Further, it is also observed that out of the 152 untrained allopath owners nearly 100 are postgraduates in allopathic medicine. Just because they are not qualified by definition, they are designated as 'untrained' owners. In brief, about 40 percent of the 'untrained' ownership comes from AYUSH doctors and the proportion may increase in future. Looking into its consequences, the authorities have to decide firstly, whether to allow the AYUSH doctors to operate the machine and secondly, whether to give them the training before allowing them to use the machine. Among a few gynaecologists, whom we tried to contact, there is a difference of opinion. One group

opines that there will be chaos if the AYUSH doctors are permitted to use the machine, while the other group opines that, there is no harm in allowing them to use; unofficially, a few of them are using it.

Table 4.5. Classification of centres by system of medicine studied by the owner

System of medicine studied by the owner	Training status of the owner			Total
	Trained	Untrained	Not properly qualified/trained	
Allopath	68	150	28	246
Non-Allopath	-	113	-	113
Both Allopath & Non-Allopath *(A Group of 12 doctors own)*	1	-	-	1
Trust Hospital	-	1	-	1
Non-Medical	-	8	-	8
Not Given	-	3	-	3
Total	69	275	28	372

Purposes for sonography – Availability of data

One of the objectives of this study is to know the main purposes for which sonographies are being carried out. This would be revealed by the survey. As far as the availability of data is concerned, it is observed (Table 4.6) that in case of 21 centres, no data were available, in 190 cases, data were available for both i.e. ANC and Non-ANC purposes, in 100 cases only ANC data were available, while in 61 cases only non-ANC data were available. The proportion of not getting any data was higher (6 percent) in case of untrained owners compared to 3 percent for the trained owners. Similarly, the proportion of the centres with non-ANC data available is much higher (16 percent) for untrained owners compared to the trained owners (1-2 percent). This might be due to large number of MSs/MDs among the 'untrained' owners, needing sonographies only for other non-ANC purposes, while the sample of trained owners is overweighed by gynaecologists, needing sonographies for ANC purposes.

Table 4.6. Classification of centres by purposes on which data are available

Availability of data on purposes of sonography	Training status of the owner			Total	Percent
	Trained	Untrained	Not properly qualified/trained		
ANC	27	68	5	100	26.9
Non-ANC	1	45	15	61	16.4
Both ANC & Non-ANC	39	146	5	190	51.9
None	2	16	3	21	5.7
Total	69	275	28	372	100.0

Another interesting information is provided in Table 4.7 which gives the data on different kinds of problems for getting partial data. Out of a total of 100 cases, 53 cases relate to sonography centres dealing with non-ANC cases only. Incidentally in this case, a question arises as to why are these centres made to register under PNDT act? A serious thought needs to be given.

Table 4.7. Classification of centres by reason for incomplete data

Reasons for incomplete data	Training Status of the owner			Total
	Trained	Untrained	Not properly qualified/trained	
No ANC cases and other data not available	-	5	2	7
Non-obstetric data not available/ maintained	1	7	-	8
Both ANC and non ANC data not available	-	2	-	2
Only pre surgery diagnosis/cardiac cases	-	9	8	17
Only last three months data available	1	2	-	3
Don't keep records/ copies	-	4	1	5
Recently Started	3	6	1	10
Trimester-wise data not available	1	8	-	9
Only non-ANC cases are done	1	30	7	38
Under renovation	-	1	-	1
Total	7	74	19	100

Annual Performance: Obstetric ultrasound sonography tests

The performance is reported for both last three months and last one year. Here we analyse the annual performance for the year, July 2003 to June 2004. The performance can be classified into obstetric sonographies and non-obstetric sonographies. It is observed that 63 centres owned by trained doctors have conducted about 20000 obstetric sonographies, while the number of sonographies for centres with 'untrained' owner is 31000. The average number of sonographies for the three categories of sonography centres is as follows:

Obstetric sonography tests	Trained	Untrained	Not properly qualified/trained
Average obstetric sonography tests	325.3	153.5	73.5

It is observed that the performance of centres with trained owner is more than twice that of the centres with 'untrained' owner. The difference could be due to the difference in the extent availability of the operator doctor, difference in the regional composition etc... Before we look into the reasons, let us examine the situation regarding non-obstetric cases. It is observed that the centres with trained owner have carried out

about 19000 sonographies, while the centres with untrained owners have carried out about 45000 sonographies. The averages are as given below.

Annual performance: non-obstetric ultrasound sonography tests

Non-obstetric sonography tests	Trained	Untrained	Not properly qualified/trained
Average non-obstetric sonography tests	534.5	248.8	290.4

Here again we find that the centres with untrained owners lag behind the centres with trained owners and the lag is of the order similar to that found for obstetric sonographies. One would like to know about the proportion of obstetric cases carried out by a centre. The above figures tell about the overall performance. It would be interesting to know about the proportion of obstetric cases at centres which conduct both types of sonographies. It is observed that it is about 50 percent for the 'trained' category of centres, and 46 percent for the 'untrained' category of centres. If we consider the overall performance it is observed that the centres with 'trained' owners are carrying out 2-3 sonographies per day, while the centres with 'untrained' owners are conducting only one (or slightly more) sonography per day. Is it not an indication of the machine lying idle, particularly for the centres with untrained owners? One could identify the reasons for the lower performance. However, it should be remembered that reporting biases also exist. Before coming to this conclusion, one could have a look at the distribution of the centres by performance. Table 4.8 gives the data on obstetric cases and Table 4.9 gives the data on non-obstetric cases. It is observed that out of 62 centres owned by trained persons, about 60 percent have reported annual obstetric performance less than 100, while the same proportion for the centres with untrained persons is 80 percent. Similarly, for non-obstetric sonographies, 48 percent of the centres of 'trained' category report annual non-obstetric performance less than 100, while the same for 'untrained' category of centres is 33 percent. Thus, it is clear that for obstetric sonographies the lag between the averages is reflected also in the distribution, while for non-obstetric cases the lag appears not due to the overall distribution but mainly due to 4 centres showing abnormal performance (more than 2000). This implies that the performance in obstetric sonographies depends upon the ownership of the centre, while performance in non-obstetric sonographies is not sensitive to the ownership.

Table 4.8. Classification of centres by number of obstetric sonography tests carried out during July 2003-2004 by training status of the owner and trimester (T1, T2, T3).

Number of sonography tests	Number of Centres								
	Trained			Untrained			Not properly qualified/trained		
	T1	T2	T3	T1	T2	T3	T1	T2	T3
0-24	23	12	16	131	76	88	7	3	5
25-49	19	9	9	32	50	44	3	5	2
50-74	6	12	9	12	20	19	-	-	2
75-99	3	5	4	7	14	12	-	-	-
100-199	8	12	13	9	27	27	-	1	-
200-399	2	8	8	3	11	9	-	-	-
400-599	-	2	2	-	2	3	-	-	-
600-799	1	1	-	-	-	-	-	-	-
800-1000	1	1	-	-	-	-	-	-	-
1000+	-	-	1	-	-	1	-	-	-
N.G.	-	--	-	3	3	-	-	-	-
No. of centres	63	62	62	197	203	203	10	9	9
Average	73.1	142.7	123.0	29.4	63.3	61.5	19.9	34.7	25.1
Median	36.2	70.8	66.7	18.8	37.8	32.7	Not Calculated		

Table 4.9 Classification of non-obstetric sonography tests carried out during July 2003-2004 by training status of the owner

Number of sonography tests	Number of Centres		
	Trained	Untrained	Not properly qualified/trained
0-24	4	33	-
25-49	3	12	1
50-99	12	20	3
100-299	7	61	6
300-499	4	30	5
500-1000	5	21	3
1000-2000	2	5	-
2000+	4	-	-
No. of centres	41	182	18
Average	534.5	248.8	290.4
Median	121.4	142.6	Not Calculated

Coming back to the reasons for lower performance of centres with untrained owner, we present here some information about the availability of doctors/operators at the 'untrained' category of centres.

Limited availability of the doctors at 'untrained' category of centres could be directly examined by examining the frequency of visits of appointed doctors. However, the question regarding this was not incorporated in the original questionnaire. During the

field work it was thought that this is an important information and hence a question was added. For centres with trained owner, this question was not asked, assuming that the services are available on daily basis. Because of the reason given above the information is not available for the entire sample. However, the sample for which the information is available is adequate (164 out of 277) enough. Table 4.10 gives the relevant data. It is observed that only about 29 percent of centres have a daily visit, while about 11 percent of the centres have one/two visits in a month. If we call less than thrice a week as rare visit, it is about 45 percent of the centres have a rare visit of the operator. Thus, lower performance of the 'untrained' category of centres could be partly explained by the limited availability of the facilities. Apart from the explanatory nature, one has to think about the utility of such centres.

Table 4.10. Frequency of the operator's visit for centres with untrained owner

Sr. No.	Frequency of the operator's visit	No. of centres	Percentage
1	Daily	47	28.66
2	Five days in a week	1	0.61
3	Thrice in a week	9	5.49
4	Twice in a week	9	5.49
5	Once in a week	46	28.05
6	On call	33	20.12
7	Twice in a month	13	7.93
8	Once in a month	6	3.66
	Total	164	100.00

Role of AYUSH doctors.

Earlier it was observed that the performance of the centres with untrained owner is much lower in comparison to the centres with trained owner. Limited availability of operator doctor and limited need of the hospitals are some of the reasons for lower performance. In this context, it is worthwhile examining the performance of centres owned by AYUSH doctors as against other allopathic doctors untrained in sonography. Table 4.11 gives the relevant information, for obstetric cases for the three trimesters. The median performances of the two types of centres are given below.

Trimester	Median Performance	
	Centres owned by AYUSH doctors	Centres owned by allopathic untrained doctors
First	16.1	19.6
Second	28.4	49.5
Third	23.3	44.0

The figures clearly imply that among the centres run by untrained doctors, those owned by AYUSH doctors have lower performance pointing towards the limited use of centres owned by AYUSH doctors. Table 4.12 gives the distribution of non-obstetric sonographies carried out in the centres owned by AYUSH and other non-allopathic untrained doctors. There is significant difference between the median performances the two categories of centres. Thus, if in future, the AYUSH doctors are permitted to operate sonography machines, the performance of such centres is not going to contribute significantly to the total sonography performance.

Another factor which could explain the differentials is the functional status of the centre such as 'attached to hospital' or 'independent centre'. Table 4.13 gives the performance classified by training status of the owner and functional status of the centre. Median performance of these centres classified by above-mentioned characteristics is given below.

Functional and training status of the owner	Median Performance
Centre owned by trained person, attached to hospital	156.5
Centre owned by trained person, separate centres	750.0
Centre owned by untrained person, attached to hospital	156.0
Centre owned by untrained person, separate centres	300.0

The above figures clearly indicate that a separate centre owned by a trained person has the highest performance, as explained. At the same time it is also revealed that the lower performance of 'untrained category' is partly due to the fact they have higher proportion of centres attached to hospitals and these centres have a lower performance.

Trimester-wise sonography tests at the level of the centre.

In the last section, the data on the performance regarding obstetric and non-obstetric sonographies were analysed on overall basis. For instance, among obstetric sonographies, the number of them carried out during the three trimesters were examined for the entire sample of centres with trained and untrained owners. It showed that, compared to the second and third trimester, number of sonographies carried out during the first trimester are smaller in proportion. According to the doctors, the sonography during the second trimester enables them to identify for the first time, deformities if existing, in the baby and hence is very essential. However, it should be remembered that it is this sonography which also could detect the sex of the baby. The sonography during the third

Table 4.11. Classification of obstetric sonography tests by size and type of untrained doctors.

First Trimester

Number of obstetric sonography tests	Type of Doctor				Total
	Ayush/BAMS/BUMS/BHMS		Other Untrained		
	Number	Percent	Number	Percent	
0-24	69	77.53	65	58.04	134
25-49	11	12.36	22	19.64	33
50-74	6	6.74	6	5.36	12
75-99	1	1.12	6	5.36	7
100-199	1	1.12	8	7.14	9
200-399	1	1.12	2	1.79	3
1000 +	0	0.00	3	2.68	3
Total	89	100.00	112	100.00	201
Median	16.1	-	19.6	-	-

Second Trimester

Number of obstetric sonography tests	Type of Doctor				Total
	Ayush/BAMS/BUMS/BHMS		Other Untrained		
	Number	Percent	Number	Percent	
0-24	43	45.74	34	30.09	77
25-49	29	30.85	23	20.35	52
50-74	6	6.38	14	12.39	20
75-99	4	4.26	10	8.85	14
100-199	10	10.64	18	15.93	28
200-399	2	2.13	9	7.96	11
400-599	0	0.00	2	1.77	2
1000 +	0	0.00	3	2.65	3
Total	94	100	113	100	207
Median	28.4	-	49.5	-	-

Third Trimester

Number of obstetric sonography tests	Type of Doctor				Total
	Ayush/BAMS/BUMS/BHMS		Other Untrained		
	Number	Percent	Number	Percent	
0-24	52	53.61	37	33.04	89
25-49	19	19.59	25	22.32	44
50-74	9	9.28	12	10.71	21
75-99	6	6.19	6	5.36	12
100-199	7	7.22	20	17.86	27
200-399	2	2.06	8	7.14	10
400-599	2	2.06	1	0.89	3
1000 +	0	0.00	3	2.68	3
Total	97	100.00	112	100.00	209
Median	23.3	-	44.0	-	-

Table 4.12. Classification of non-obstetric sonography tests done by untrained doctors by type

Number of non-obstetric sonography tests	Type of Doctor				Total
	Ayush/BAMS/BUMS/BHMS		Others		
	Number	Percent	Number	Percent	
0-24	19	29.23	13	11.30	32
25-49	7	10.77	5	4.35	12
50-74	5	7.69	7	6.09	12
75-99	1	1.54	7	6.09	8
100-199	18	27.69	26	22.61	44
200-399	7	10.77	33	28.70	40
400-599	6	9.23	8	6.96	14
600-799	1	1.54	8	6.96	9
800-999	1	1.54	3	2.61	4
1000 +	0	0.00	5	4.35	5
Total	65	100.00	115	100.00	180
Median	102.5		162.2		

Table 4.13 Classification of sonography tests by functional status and training status of the owner

Number of sonography tests	Functional status of the centre			Total
	Attached to Hospital	Separate Unit/Centre	Not Given	
Trained				
0 – 24	3	-	-	3
25 – 49	2	-	-	2
50 – 99	7	1	1	9
100 – 299	23	4	-	27
300 – 499	6	1	1	8
500 – 1000	5	5	-	10
1000 – 2000	3	2	-	5
2000 +	1	4	-	5
Total	**50**	**17**	**2**	**69**
Untrained				
0 – 24	32	8	2	42
25 – 49	22	5	-	27
50 – 99	35	6	-	41
100 – 299	72	8	-	80
300 – 499	30	7	-	37
500 – 1000	19	15	-	34
1000 – 2000	9	5	-	14
Total	**219**	**54**	**2**	**275**
Not qualified and not properly trained				
0 – 24	5	-	-	5
25 – 49	3	-	-	3
50 – 99	5	-	-	5
100 – 299	5	-	-	5
300 – 499	7	-	-	7
500 – 1000	3	-	-	3
Total	**28**	-	-	**28**

trimester is to assess the growth of the baby. If one wishes to examine whether the sonographies are done timely, it could be better to examine the trimester-wise proportions at the level of centre rather than on overall basis. Table 4.14 gives these the data for both trained and untrained owners. The medians for the percentage shares of the three trimesters are as follows:

Training status of the owner	Trimester		
	I	II	III
Owner Trained	20.1	42.1	35.0
Owner Untrained	16.0	41.2	39.4

There is no significant difference between the distributions of sonographies carried by trained and untrained categories of centres. However, it should be remembered that the medians are based on independently tabulated distribution of centres. The sonographies of a centre during first/second/third are not analysed as a package. It may be interesting to observe the patterns examined at the level of individual centres. Since a three way tabulation is a complicated exercise and since the performance during 2nd and 3rd trimester are close to each other, we have presented the cross-classification of sonographies carried out during 1st and 2nd trimester in table 4.15. If sonographies are done observing the proper time-schedule, one would observe the diagonal cells in table 4.15 filled. However, in absence of the proper time-schedule, one would observe figures not necessarily only in the diagonal cells. The panel for trained owners shows mainly the diagonal cells filled with a few exceptions. However, the panel for untrained owners shows the left triangle, and not necessarily the diagonal, filled. These observations indicate that some of the untrained owners have not followed the time-schedule properly. For instance, there are 13 centres which have conducted less than 20 percent sonographies in the second trimester. As mentioned previously, sonography in the second trimester is an important component in antenatal case. This irregularity can also be assessed by looking at the trend of proportion of sonographies carried out in the second semester against the rising proportion of sonographies in the first trimester. If we locate the intervals with a median, they could serve as the trend values. The last column of the table gives the medians in terms of intervals. Ideally, if proper time-schedule is observed, the medians should go down against rising proportions of sonographies in the first trimester. First panel of the table for trained owners shows that the trend is smooth. However, the trend for the centres with untrained owners does not show a smooth trend. For instance, the median does not go

Table 4.14. Percent sonography testes done by training status of the owner and trimester

	Training status of the owner							
	Trained		Untrained		Not qualified and not properly trained		Total	
Percent sonographies done in first trimester								
0 – 10	14	(24.1)	58	(33.0)	3	(50.0)	75	(31.3)
11 – 20	15	(25.9)	50	(28.4)	-	-	65	(27.1)
21 – 30	18	(31.0)	31	(17.6)	-	-	49	(20.4)
31 – 40	6	(10.3)	21	(11.9)	1	(16.7)	28	(11.7)
41 – 50	3	(5.2)	7	(4.0)	1	(16.7)	11	(4.6)
51 – 60	-	-	3	(1.7)	-	-	3	(1.3)
61 – 70	1	(1.7)	3	(1.7)	-	-	4	(1.7)
71 – 80	1	(1.7)	1	(0.6)	-	-	2	(0.8)
81 – 90	-	-	-	-	1	(16.7)	1	(0.4)
91 – 100	-	-	2	(1.1)	-	-	2	(0.8)
Total	58	(100.0)	176	(100.0)	6	(100.0)	240	(100.0)
Percent sonographies done in Second trimester								
0 – 10	1	(1.7)	7	(3.9)	1	(12.5)	9	(3.7)
11 – 20	2	(3.4)	7	(3.9)	-	-	9	(3.7)
21 – 30	7	(12.1)	19	(10.7)	2	(25.0)	28	(11.5)
31 – 40	15	(25.9)	49	(27.5)	2	(25.0)	66	(27.0)
41 – 50	19	(32.8)	60	(33.7)	-	-	79	(32.4)
51 – 60	6	(10.3)	22	(12.4)	2	(25.0)	30	(12.3)
61 – 70	4	(6.9)	11	(6.2)	1	(12.5)	16	(6.6)
71 – 80	2	(3.4)	3	(1.7)	-	-	5	(2.0)
81 – 90	1	(1.7)	-	-	-	-	1	(0.4)
91 – 100	1	(1.7)	-	-	-	-	1	(0.4)
Total	58	(100.0)	178	(100.0)	8	(100.0)	244	(100.0)
Percent sonographies done in Third trimester								
0 – 10	2	(3.6)	9	(5.0)	1	(12.5)	12	(4.9)
11 – 20	6	(10.9)	15	(8.3)	1	(12.5)	22	(9.1)
21 – 30	11	(20.0)	22	(12.2)	3	(37.5)	36	(14.8
31 – 40	17	(30.9)	47	(26.1)	-	-	64	(26.3)
41 – 50	11	(20.0)	49	(27.2)	1	(12.5)	61	(25.1)
51 – 60	5	(9.1)	20	(11.1)	2	(25.0)	27	(11.1)
61 – 70	2	(3.6)	12	(6.7)	-	-	14	(5.8)
71 – 80	-	-	3	(1.7)	-	-	3	(1.2)
81 – 90	-	-	1	(0.6)	-	-	1	(0.4)
91 – 100	1	(1.8)	2	(1.1)	-	-	3	(1.2)
Total	55	(100.0)	180	(100.0)	8	(100.0)	243	(100.0)

(table 4.15 is given as a separate document)

Table 4.15 Percent sonographies done in first trimester cross-classified by percent sonographies done in second trimester

Training Status of Owner		Percent Sonographies done in Second Trimester										Total	Median Interval
		0-10	11-20	21-30	31-40	41-50	51-60	61-70	71-80	81-90	91-100		
Trained Owner													
Percent Sonographies done in First Trimester	0-10	1	-	-	-	3	2	4	2	1	1	14	60
	11-20	-	1	3	2	7	2	-	-	-	-	15	40-50
	21-30	-	-	-	10	5	2	-	-	-	-	17	30-40
	31-40	-	-	-	3	2	-	-	-	-	-	5	30-40
	41-50	-	-	2	-	-	-	-	-	-	-	2	20-30
	61-70	-	1	-	-	-	-	-	-	-	-	1	NC
	71-80	-	-	1	-	-	-	-	-	-	-	1	
	Total	1	2	6	15	17	6	4	2	1	1	55	NC
Untrained Owner													
Percent Sonographies done in First Trimester	0-10	3	1	5	10	17	12	4	1	-	-	53	40-50
	11-20	-	2	4	8	22	5	4	1	-	-	46	40-50
	21-30	-	1	-	13	10	2	3	1	-	-	30	40-50
	31-40	1	1	3	9	5	1	-	-	-	-	20	30-40
	41-50	-	-	1	3	3	-	-	-	-	-	7	30-40
	51-60	1	1	1	-	-	-	-	-	-	-	3	10-20
	61-70	-	-	1	1	-	-	-	-	-	-	2	20-30
	71-80	-	-	1	-	-	-	-	-	-	-	1	NC
	91-100	2	-	-	-	-	-	-	-	-	-	2	0-10
	Total	7	6	16	44	57	20	11	3	-	-	164	
Not properly qualified/trained													
Percent Sonographies done in First Trimester	0-10	-	-	-	2	-	-	1	-	-	-	3	NC
	31-40	-	-	-	-	-	1	-	-	-	-	1	NC
	41-50	-	-	1	-	-	-	-	-	-	-	1	NC
	81-90	1	-	-	-	-	-	-	-	-	-	1	NC
	Total	1	-	1	2	-	1	1	-	-	-	6	NC

NC : Not Calculated

down for the first three intervals (0-10, 10-20, 20-30), indicating the lack of observance of proper time- schedule. One should bear in mind that whenever own clients are there, one could expect observance of time-schedule, but in case of referrals, the observance would depend upon the doctors referring the patient and not on the centre. However, in our sample, majority of the centres (80 percent) are attached to hospitals and hence we can very well expect that the distribution of obstetric sonographies should have somewhat fixed pattern. Contrarily, we find that there is some kind of deviation from regularity as far as the untrained owners are considered. What could be the reasons for this phenomenon? One reason could be in the lack of expertise on the part of the owner reflected in lack of timeless in the schedule of antenatal sonographies for the patients. Another reason could be traced in the emphasis of the 'untrained' owners mainly on non-obstetric cases. Whatever be the reasons, it is to be noted that the utilisation of the sonography facility by the untrained owners lacks both in quantity and quality as far as the obstetric cases are concerned.

Referrals by Allopathic and Non-allopathic (ISM & H) Doctors

In order to know the extent of referrals by allopathic and non-allopathic doctors, a question was included in the questionnaire asking for whether the patients are referred or are own clients and if they are referred, their classification by type of doctor referring the patients. It is observed that during the last year 76513 sonographies were of own clients while 63984 were referred cases. Fifty centres have reported the data on referrals while 285 centres have reported the data on own clients. It is observed that the overall percentage of referrals by allopathic doctors is 77.85. For 'trained' category of centre, the percentage is 84.50 while for 'untrained' category it is 70.14. The figures indicate that the referrals by allopathic doctors are relatively lesser for the 'untrained' category centres. However, as observed in Table 4.16 there are 15 out of 38 centres (untrained category), where the percentage of allopathic doctors are about 70 percent. Since majority of 'untrained' category of centres are from non-corporation non-city areas and since the non allopathic doctors mainly practice there, we find a higher amount of referrals from ISM & H doctors for 'untrained' category of centres.

As far as 'own clients' are concerned, once again it is found that the numbers are smaller for the untrained category of centres (Table 4.17). The reason mainly lies in the

small size of hospitals in non-corporation areas, where the 'untrained' category of centres are mainly found.

Table 4.16. Percent referred by allopathic doctors

Percent referred by allopathic doctors	Training status of the owner		Total
	Trained	Untrained	
0-10	-	2	2
21-30	-	2	2
31-40	-	6	6
41-50	4	7	11
51-60	1	4	5
61-70	-	2	2
71-80	-	7	7
81-90	2	5	7
91-100	5	3	8
Total	12	38	50

Table 4.17. Number of own clients by training status of owner

Number of own clients	Training status of the owner			Total
	Trained	Untrained	Not properly qualified/trained	
0-100	11	86	8	105
101-200	11	53	4	68
201-300	12	23	2	37
301-400	4	23	4	31
401-500	5	9	2	16
501-600	2	7	-	9
601-700	1	6	1	8
701-800	3	5	2	10
801-900	-	1	-	1
Total	49	213	23	285

Some observations about the maintenance of records, sending reports, supervisory visits etc.

Along with the questionnaire administered to the centres, we also had prepared one check-list in order to assess the observance of provisions of PNDT act in administrative matters. The following extract gives some observations to start with.

The violation of the Act seems to be maximum in case of maintaining the records. It is to be noted that majority of the doctors had not kept the copies of the form 'F' which

reveals the performance and form 'G' which is a consent form. In fact according to section 29 of the act, 'All records, charts, forms, reports, consent under this Act and they shall be preserved for a period of two years or for such period as may be prescribed?

Sometimes our field team had to scan through the original papers and in some cases information was not at all available. In some cases data on obstetric cases only were maintained. In short, the system of data maintenance needs some improvement.

Observance of provisions of PNDT act by the centres	No	Yes
Sonography centre functions in the same registered place	11	361
Change of place intimated to authorities	2	9
Operator is same as reported at the time registration	43	329
Change of operator intimated to authorities	15	28
Centres maintains form 'F'	62	303
Centres maintains form 'G'	62	303
Centres sends monthly report regularly	43	318

Supervisory visit by the Appropriate Authorities

Lastly, the information on supervisory visit of the appropriate authorities needs an examination in order to evaluate the role of the authorities. Table 4.18 gives the data. It is surprising to observe that in 66 cases, i.e. in about 18 percent of the cases, the visit was rare, in 36 i.e. about 10 percent cases, no visit was paid, in 50 cases (i.e. about 13 percent), the visit was paid once in six months and in six cases, it was once a year. In short in case of 45 percent of the centres only, supervisory visits were somewhat regular. The regularity of frequency of visits does not change according to the status of ownership. However, as per the observations of our field team, the supervision in the corporation areas was better than that in the non-corporation areas. It was told that conveyance charges for supervisory visits are not reimbursed. But, this could be a stray observation. Whatever the reasons, the fact remains that, supervision is not regular and strict and hence the authorities need to give a serious thought to the same.

Table 4.18 Frequency of Supervisory Visit by Appropriate Authority

Frequency of supervisory visit by Appropriate Authority	Training Status of the Owner			Total
	Trained	Untrained	Not qualified and not Properly Trained	
Never visited	-	2	-	2
Rare visit	16	46	4	66
Not a single visit since one year/date of registration	3	27	6	36
Once in a year	1	4	1	6
Once in a six months	6	37	7	50
Once in three/four months	8	33	1	42
Once in two months	16	66	7	89
Once in a month	12	24	1	37
Frequent visit	2	3	1	6
Not Applicable	-	1	-	1
Not Given	5	33	-	38

Findings on the opinions of the AYUSH doctors desirous of having the sonography machine

As mentioned in the introductory chapter, it was proposed to contact 50-100 doctors, unqualified at the moment, but desirous of having the sonography machine. Again as mentioned earlier in this chapter, it was impossible to get a proper sampling frame for this category of respondents. Further, although the study was proposed for both non-allopathic and allopathic doctors, we thought that for allopathic doctors, the training facilities are available and hence they have no difficulty in translating their desires into action. The real problem is with the non-allopaths. Therefore, we tried to use the sampling frame for non-allopaths, which was available with Pune branch of NIMA. In all 100 doctors were contacted, either through a letter, actual visit or a telephonic call. Out of these, in 32 cases, there was no response, 53 doctors showed interest, while 15 of them were not interested in having the machine, thus, leading to an extent of 72 percent willingness to use the sonography machine. A few details about these doctors are given below in Table 4.19.

It appears from the table that although the proportion of desirous doctors is good enough, the other aspects are not that encouraging. For instance, only one-third of the respondents intend to operate the machine by themselves. Further, their use also is limited. Nearly half of the respondents have referred only 17-18 cases per month. It is

generally observed that doctors of hospitals with larger bed-strength seem to refer cases in large numbers. Although, these findings are based on a small sample, they do indicate that hospitals with adequate bed strength only could utilise the machine properly.

Table 4.19. AYUSH doctors desirous of having the sonography machine

AYUSH doctors desirous of having the sonography machine	Number	Percent
Willing to have sonography machine		
Yes	38	71.7
No	15	28.3
Type of attachment		
Hospital	44	83.0
Dispensary	7	13.2
N.G.	2	3.8
Mode of operation		
Self	17	32.1
Operator	21	39.6
Both	15	28.3
Cases referred during last three months		
0-49	24	45.3
50-99	8	15.1
100-149	6	11.3
150-199	3	5.7
200+	1	1.9
N.G.	11	20.8
Purpose of use		
Obstetric	10	18.9
Non-obstetric	5	9.4
Both	36	67.9
Not Given	2	3.8
Total	53	100.0

Chapter V

Summary and Recommendations

The Ministry of Health and Family Welfare (MOHFW) has assigned us the present study and we got a good opportunity to examine the situation, although in a small way, regarding a currently most important issue of tremendous expansion of sonography centres and its consequences. There is an additional dimension to this study. The organisations of doctors of non-allopathic medicine were constantly demanding permission, from MOHFW, to use the sonography facilities. At present they are not allowed to use the machine under the PNDT Act. They have to appoint a sonologist for their clinics. The organisations of non-allpathic doctors have been negotiating with MOHFW on the grounds of a Government Resolution which allows them to use modern testing procedures. They also argue that since in interior areas, more than the allopathic doctors, these doctors are practicing in large numbers and hence if the rural populace is to benefit from modern medical procedures, the non-allopathic doctors should be permitted to use the sonography machine, may be after undergoing training in sonography.

As a consequence of these persistent demands, the MOHFW decided to obtain the information about the current use of sonography machines by untrained doctors, mainly consisting of non-allopaths and the main purpose for which sonography is being carried out. Subsequently, a meeting of the representatives of the Population Research Centre was held at the MOHFW and the present study was assigned to PRCs of selected states, where the number of sonography machines was adequate. This chapter presents the summary and the recommendations of the study.

Distribution of ultrasound sonography centres in Maharashtra

As on September 30, 2004, Maharashtra had 4345 ultrasound sonography clinics/centres in the entire state. These centres are unevenly distributed in the 35 districts of the state. Maharashtra has eight health circles. More than three fourth of the centres (78 percent) are registered in just four health circles (Mumbai, Pune, Nashik and Kolhapur circles) or in 16 districts located in the contiguous region of western Maharashtra. It means that 78 percent of the sonography centres are located in just 46 percent of the districts of the state, a highly concentrated distribution. The remaining 22 percent of the sonography centres are

evenly distributed (5 to 6 percent) in rest of the four health circles (Nagpur, Akola, Aurangabad and Latur circles) located in central and eastern parts of Maharashtra.

The concentration of sonography centres in the bigger cities of Maharashtra is very high. In the state as a whole, half of the sonography centres are located within the Municipal Corporation limits. Further, just six districts of the state have half (49.8 percent) of the sonography centres and all these districts come from western Maharashtra. It is a clear indication of a combination of higher aspirations of sonologists and higher capacity to pay on the part of the people. The population share of these six districts in the state is 38 percent. In 14 districts of the state the number of centres is more than 100 and 82 percent of the centres in the state is located in these 14 districts itself. The population share of these 14 districts is 64 percent in the state. In all these districts the percent of sonography centres is higher than the percentage share of population in the state.

All the districts in the central and eastern region of the state have less percentage of sonography centres than their population share. The districts with more than 100 sonography centres are distinctly having lower child sex ratio than the districts with less than 100 sonography centres. The mean sex ratio for the districts with more than 100 sonography centres is 901 and for the districts with less than 100 sonography centres it is 937. This is a rough indication of higher availability of sonography centres and the decline in child sex ratio. Gadchiroli district with the smallest number of sonography centres (five) has the highest child sex ratio (974) in the state. Further, four districts, Gadchiroli, Gondiya, Nandurbar and Bhandara, with less number of sonography centres (less than 20) are having better child sex ratio (958 and above).

Type of sonography centres

Sonography centres are registered under different categories in the state. However, most of these centres (63 percent) are registered as Ultrasound Clinic. Eighteen percent of centres are registered as Genetic Clinic. Ultrasound Clinic and Genetic Clinic together account for 81 percent of the centres in the state. Only very small percentage of the centres is registered as Genetic Laboratory/Genetic Counselling Centre (1.8 percent). Thirteen percent of the centres are registered as Private Hospital. For nearly five percent of the centres the information was not provided by the District Appropriate Authorities. It appears that the Appropriate Authorities did not pay much attention at the time of

registration to classify the centres in the proper way. Hence these classifications are not revealing the exact nature of the centres. With our field-work experience for the study, we feel that Ultrasound Clinic and Genetic Clinic are basically same and are popularly known as Ultrasound Sonography Centres or USGs.

Qualifications of the doctors/persons registered the ultrasound sonography centres

As per the PNDT Act any untrained persons in sonography can register an ultrasound clinic provided that the person who operates the machine must have the necessary training in conducting the test. One third of the doctors/persons registered the centres are Gynaecologists. Radiologists/Ultrasonologists have registered 21 percent of the centres. Four percent of the centres are registered by MBBS doctors with training or experience in conducting sonography. These four categories together (Gynaecologists; Radiologissts / Ultrasonologists; MBBS doctor with training or experience) account for the 58 percent of the centres and can be considered as trained doctors/persons in ultrasound sonography.

Doctors specialised in various other fields (Gastroenterologist, Cardiologist, ENT specialist, Orthopaedics, M.D. Medicine etc. and Non-Medical Personnel) registered nearly 11 percent of the centres. Six percent of the centres are registered by the persons/doctors qualified in Indian system of medicine (AYUSH). Ten percent of the sonography centres are registered in Trust/Government Hospitals. The District Appropriate Authorities did not provide the qualification of the registered persons for 13 percent of the centres.

Qualifications of the operators of the ultrasound sonography machines

As per the PNDT Act the person who operates the sonography machine must have the necessary qualification/training/experience to conduct the sonography tests. In the state as whole, 63 percent of the centres are 'self operated' i.e., owner himself operates the machine. The remaining 37 percent of the centres are owned by the persons who have employed the qualified persons to operate the machine. It means that the majority of the sonography centres in the state are registered/owned by the doctors/persons trained in conducting ultrasound sonography.

Among the centres owned by the trained doctors forty-four percent of the doctors are gynaecologists and one-third of them are radiologists/ultrasonologists. Gynaecologists and radiologists/ultrasonologists together dominate (76 percent) the ownership of trained "self operated" centres. Five percent of the trained owners are MBBS doctors with some training/experience in conducting sonography. Nearly 10 percent of the machines are owned by "other" doctors (other than gynaecologist and radiologists). The qualifications of the doctors in the centres owned by the trained doctors reveal that 81 percent of the sonography machines are operated by gynaecologists, radiologists/ultrasonologists and MBBS doctors with some training/experience in conducting sonography

The qualifications of the doctors using the sonography machines in the centres owned by the untrained doctors/persons (employing other doctors) reveal that, in three-fourth of these centres radiologists/ultrasonologists operate the machines. Another sixteen percent of the centres have employed the Gynaecologist for operating the machine. Radiologists and Gynaecologists together operate the machine in 90 percent of the centres owned by the untrained doctors/persons. Four percent of the operators are "other" doctors and two percent are MBBS doctors with qualification/experience in operating sonography machines. For the remaining four percent of the centres we did not get the qualification of the doctors.

Qualifications of the persons using the sonography machines in the centres owned by trained and untrained persons reveals the following: (i) in the centres owned by the trained persons gynaecologist own large number of centres (44 percent) compared to the doctors with other qualifications; and (ii) in the centres owned by the untrained persons the radiologists/ultrasonologist are mainly (75 percent) employed to operate the sonography machine.

District-wise sonography centres owned by trained and untrained doctors/persons

Analysis of district-wise qualifications of the owners of the sonography centres reveals the following: (1) the sonography centres owned by the untrained persons are much higher in western Maharashtra compared to the other parts of the state; (2) the centres owned by the persons specialised in Indian System of Medicine (AYUSH) is also higher in western Maharashtra compared to the other regions of the state; (3) almost all the centres owned by the AYUSH doctors are located exclusively in western Maharashtra; (4) in the areas falling under

the municipal corporation limits, majority of the sonography centres are mainly owned by the trained doctors; (5) AYUSH doctors mainly own their sonography centres outside of the municipal corporation areas i.e., AYUSH doctors exclusively operate in the smaller towns and interior areas of the districts; (6) sonography centres located in central and eastern parts of Maharashtra are mainly owned by the trained doctors and even among the centres owned by the untrained persons, allopath doctors own most of the centres compared to the AYUSH doctors; and (7) very few AYUSH doctors own a sonography centres in central and eastern parts of Maharashtra.

Multiple attachments of sonologists

Some sonologists are attached to more than one ultrasound centres. Either they carry their own mobile ultrasound machine or they use the fixed machine owned by the owner of the centre. This system effectively increases the number and spread of the registered centres in an area/region. It is observed that 46 doctors, in the state as a whole, are attached to 303 centres with an average of 6.6 attachments per doctor. The average varies between the districts/corporations. It is also observed that such multiple attachments are more common in the corporation areas.

The sex ratio of child population in Maharashtra

In Maharashtra, the child sex ratio has declined by 29 points from 946 in 1991 to 917 in 2001. It is not only much lower than the universal sex ratio at birth (943-952), it is also much lower than those for the all four south Indian states (Kerala 963, Andhra Pradesh 964, Karnataka 949 and Tamil Nadu 939) and Madhya Pradesh (931). Child sex ratio in the districts of Maharashtra varies between 974 in Gadchiroli and 850 in Sangli. The districts with higher sex ratio mainly come from central and eastern regions of Maharashtra and most of the low sex ratio districts come from Western regions of the state. Mainly the prosperous districts/areas of Maharashtra have worst sex ratios e.g., Sangli (850), Kolhapur (859), Jalgaon (867), Aurangabad (884), Satara (884), Ahmadnagar (890), Solapur (897), Beed (898), Mumbai (898), Pune (906) and Dhule (907). The sex ratio of children in the entire Pune region is very much unfavourable to females (below 900). On the contrary, the backward/tribal districts like Gadchiroli (974), Nandurbar (966), Gondiya (964) and Bhandara (958) have higher sex ratios in the state.

The child sex ratio in urban areas of Maharashtra (908) is 15 points lower than in rural areas (923). In 15 districts of the state the urban sex ratio is 25 points lower than the rural sex ratio. Rural sex ratio is above 943 in 15 districts (46 percent) whereas only in two districts (6 percent) the urban sex ratio is above 943. It means that the imbalance of female children in urban areas is prevailing throughout the state. The child sex ratio in rural areas is below 900 in one-fourth of the districts whereas in 40 percent of the districts the urban sex ratio is below 900. The child sex ratio for the 15 Municipal Corporations of the state is 910, which is lower than the child sex ratio for the entire state (917) and much lower than the child sex ratio for rural areas of the state (923).

Decline in child sex ratio between 1991 and 2001

Decline in child sex ratio from 1991 to 2001 shows that every single district had experienced a decline except one (Akola) where it increased by 7 points. The extent of decline is more than 40 points in 8 districts and in all these districts sex ratio is below 900. The developed districts of the state had experienced higher magnitude of decline compared to the less developed districts.

Sex ratio of child population in the tehsils of Maharashtra

Out of 353 tehsils in the state only in 37 percent of the tehsils, the child sex ratio is in the normal range of 943 and above. In the remaining tehsils it is below 943 and in one-fourth of the tehsils it is below 900. The sex ratios of the rural and urban areas of the tehsils reveal a shocking picture for urban areas. In 41 percent of the tehsils the rural sex ratio is 943 and above whereas only in 17 percent of the thesils the urban sex ratio is above this level. In half of the tehsils the urban sex ratio is below 900. The sex ratio of child population in the urban areas of the tehsils reveals that not only the sex ratio is lower in urban areas of the state it is lower even in smaller towns in most parts of the state.

The association between the number of sonography centres and the child sex ratio at the district, corporation and tehsil levels.

It is generally believed that the recent sharp decline in child sex ratio is a result of the rapid spread in the availability and use of the ultrasound sonography for sex determination. This association is tested with the data we have collected for the study on number of sonography centres at the district level. The correlation coefficients between the number of sonography centres in the district and child sex ratios in the district (total, rural

and urban) are negative and significant at one percent level - a very clear negative association between the availability of sonography centres and child sex ratios in Maharashtra. The sex ratio of the child population in Maharashtra has declined by 29 points from 946 in 1991 to 917 in 2001. During this decade the sonography centres have mushroomed in many parts of the country including Maharashtra. The correlation between the number of sonography centres and decline in child sex ratio is positive and statistically significant at one percent level i.e., higher the number of sonography centres in the districts higher the decline in child sex ratio in the districts.

The alternate variable, the number of sonography centres per 1000 population (as per the population in 2001) in a district helps us to capture number of centres in proportion to its population size. The correlation between number of centres per 1000 population in the districts and child sex ratio is negative and significant at one percent level for total, rural and urban areas. Similarly, the same variable has a significant positive correlation with decline in child sex ratio from 1991-2001. The number of centres per 1000 population is also negatively associated with the child sex ratios in the municipal corporations at one percent level of significance. Tehsil level data also broadly indicate that the higher availability of sonography centres at the tehsil level has a negative impact on the child sex ratio of the tehsils. The tehsils with very high sex ratios in the state are having a less number of sonography centres whereas the tehsils with the lowest sex ratios in the state are having higher number of sonography centres.

We have done the bivariate regression analysis by taking the child sex ratio variables (child sex ratio and decline in child sex ratio between 1991 and 2001) as the dependent variables and availability of sonography centres (number of sonography centres and number of sonography centres per 1000 population) as the independent variables.

Number of sonography centres and child sex ratio

The regression analysis shows that the effect of number of sonography centres on child sex ratio is negative and statistically significant at one percent level. This single independent variable alone explains 43 percent of variance in child sex ratio. Similarly, the number of sonography centres per 1000 population exerts a significant negative influence on the child sex ratio at the district level. The explanatory power of this variable on child sex ratio is greater than the earlier variable. Centres per 1000 population explains nearly

half (R^2: 48 percent) of the variance in child sex ratio. The relationship between the number of centres per 1000 population in MCs and child sex ratio in MCs is significantly negative. The regression analysis shows that the two variables representing the availability of the sonography centres significantly reduce the child sex ratio at the district level in Maharashtra.

Number of sonography centres and decline in child sex ratio between 1991 and 2001

The relationship between the number of sonography centres and the decline in sex ratio is positive at one percent level of significance i.e., the increase in sonography centres has significantly increased the extent of decline in child sex ratio in Maharashtra. Thirty-seven percent of variance in the decline in child sex ratio is explained by the number of sonography centres. The regression result for the effect of number of centres per 1000 population on the decline in sex ratio is also positive and significant at one percent level. This regression explains the 35 percent variance in decline in sex ratio in the state. The correlation and regression analyses at the different levels of aggregation (districts, corporations and tehsils) confirm the negative relationship between the availability of sonography centres and child sex ratio in Maharashtra. The analyses also indicate that the further increase and spread in the availability of sonography centres in the districts/corporations will contribute for the further decline in sex ratio. The sex ratios in Maharashtra and MCs are already very low at the level of 917 and 910 female children per 1000 male children respectively.

Findings of the survey of ultrasound sonography centres

The survey was carried out in 372 sonography centres during August – November 2004. The questionnaire supplied by the MOHFW was canvassed for the survey and it contained questions on type of machine, registration number, qualification of the operator, number of referrals by both allopathic and non-allopathic doctors, the purpose (obstetric/non-obstetric) of sonography, the classification of obstetric sonographies by trimesters, etc. With a purpose of assessment of observance of PNDT act, we had prepared a check-list about maintenance of records, sending timely reports, supervisory visits, etc. In all, the survey was conducted in 69 sonography centres owned by the trained doctors/persons, 275 centres owned by untrained persons and another 28 centres owned by 'not properly trained/qualified persons'.

Although, the prescribed objectives of the survey and the questionnaire did not contain anything related to sex-determination, we have analysed the available data to look for the relationship of sonography centres and the significant declines in child sex-ratios in selected districts of Maharashtra. During the survey, one could not ask openly about the sex-determination tests, since there is a ban on the same. However, we used to address a simple question, 'Do couples come to you asking for the sex-determination?' and the reply always would be, "Yes, they come, but I do not do the test. There are many, who do the tests". This indirectly hints at the possibility of sex-determination tests being carried out in non-negligible proportion.

The information regarding type of machine, cost of machine, performance, referral etc. enabled us to have an assessment about the functioning of the sonography centres. Type of machine and cost of machine tell us about the investment incurred by the owners. It is observed that 80 percent of the owners have a fixed machine. Only 12 percent are using the mobile machine. Although, a small proportion, its variation between 'trained' and 'untrained' category of centres provides an interesting observation. For 'trained' centres, it is just 7 percent, which increases to 25 percent for 'untrained' centres, indicating the untrained owners' tendency to make use of the 'mobile' facility in absence of capacity to invest. In this context, it is further more interesting to observe the trend in 'untrained ownership'.

The data on 'year of installation' show that the untrained ownership has increased remarkably after 2002. It means that these people must be operating even before registration and new people must have taken the benefit of the 'mobile' facility and registration with the help of an appointed person. For untrained owners, many of them being AYUSH doctors with limited earnings, the cost of machine could be unaffordable and hence the 'mobile' facility becomes helpful. At the same time, those 'untrained' owners, who have bought the machines at the rate of 5-6 lakhs must have done so, looking to the treatment benefits and monetary benefits emerging from this investment. It should be noted down that 40 percent of the sample of 'untrained owners' came from AYUSH systems of medicine. The returns to this investment would be substantial if the utilisation of the machine is adequate enough. In this context it is necessary to examine the data on performance of these centres.

Performance of the Centre is collected in terms of both obstetric (three trimesters) and non-obstetric cases. It is observed that 63 'trained' centres have carried out on an average 620 sonographies in an year, while the performance of untrained centres is 380 in an year. Assuming 300 working days in an year, the average turns out to be around 2 for 'trained' centre and around 'one' for untrained centres. Is it not an indication of 'under utilised capacity'? Yes, if the figures are to be believed. In fact the experience of our field team does not suggest such low averages. For 'untrained' centres, there are reasons to believe in the reported figures for example limited availability of operators, majority of the centres being attached to hospitals and hospitals having limited needs and dominance of AYUSH doctors with still lower needs of sonography facility. However, what about the 'trained' centres? Attachment to a hospital has affected this category of centres also. Our actual field experience and our expectation lead us to conclude that the performance is underreported. Then the question arises, 'what could be the reason for underreporting? Does it smell of 'sex-determination cases'? It seems plausible, because by not reporting, chance of getting caught is nil and with exorbitant fees for the same, the centre runs in spite of inadequate performance. One remark by a busy sonologist is worth noting down. While discussing about sex-determination he said, "Sometimes, when a women with 3-4 daughters comes to me asking for sex-determination, I am tempted to satisfy her demand. However, I know that, if I do it, I shall not be able to have a sound sleep and as far as money is concerned, why should I do it for money? For a simple case of 'Thrombosis', I get Rs. 1000. Why should I bother? But I know, there are many doctors, who are doing sex-determination". The money mindedness has overpowered the moral values. Less said the better.

Improvement in obstetric care is one of the significant advantages of sonography. A number of gynaecologists reported that sonography has brought revolution in the treatment of the pregnant women. They themselves wonder as to 'how they could treat pregnancy-related problems when sonography did not exist'. If the doctors do this religiously, one is willing to accept the possible impact of the sonography facility. How to test this? One way is to examine observance of some broad norms regarding the sonographies in the three trimesters. It is understood that there is no norm regarding the number of sonographies needed during pregnancy. It depends upon the need of the case. However, we came to know that sonography in the second trimester is essential, since it, for the first time, reveals deformities, if any, with the foetus. Similarly, sonography during

the third trimester reveals the growth of the baby and retardation, if any. Generally, the first trimester sonographies are relatively less in proportion. Assuming that there should be some time-schedule in carrying out obstetric sonographies, we tried to examine the schedule followed by the centres and we observed that the sonographies carried out by the 'untrained' category of centres do not follow the time-schedule. Thus, the centre with 'untrained' owner fails both in quantity and quality.

In order to assess the need of the centres of different type, a question was addressed about the referrals by allopathic/ non-allopathic doctors. As expected, more than three-fourths of the referrals are by allopaths. Further, It is observed that for centres with untrained owner, the proportion of referrals from allopathic doctors is slightly lower (70 percent). This indicates that particularly, the AYUSH doctors still not that conversant with the utility of sonography and hence do not refer patients for sonography. This phenomenon is also reflected in the responses of 53 AYUSH doctors desirous of using the machine. Only one-third of them want to use the machine by themselves. They have on an average referred only 17-18 cases per month. In short, it appears that those who were negotiating with MOHFW were the selective ones. Community of AYUSH doctors as a whole does not seem to be that keen on having the facility.

As mentioned in the main text, we had attached a check-list along with the questionnaire in order to assess the observance of the PNDT act. There are few lapses in some matters. But the worst situation is about the maintenance of records. Nearly 15 percent of the centres have failed in this. Similarly, at the level of Appropriate Authorities, the lapses are observed and they are more serious. In only 45 percent of the cases, the supervisory visits are regular.

Private doctors have literally no check. PNDT act is one such tool to have a check. If it is implemented properly, misuse of sonography could be avoided and the doctors will not be able to use it only as a money-making machine.

Recommendations

1. An important finding has emerged from this study. There is a strong correlation between availability of sonography centres and decline in child sex-ratio during 1991-2001. This is a clear revelation of the sex-determination tests being carried out in spite

of the PNDT Act, 1994. It is further observed that the districts with sharp declines in the child sex-ratio and higher availability of sonography are mainly from Western Maharashtra, particularly, the sugar-belt of Pune division. Clearly, the declining sex-ratio is the consequence of availability of sonography centres, persistent son-preference and capacity to pay. As the well-known demographer- Dr. Ashish Bose- has said, 'The unholy alliance between tradition (son-complex) and technology (ultrasound sonography) has played havoc in Indian society. One recommendation, naturally emerging from this type of scenario is "stop the expansion of sonography centres''. However, this may not be a practical suggestion. One way-out could be a recommendation in terms of disallowing registration to an untrained owner (AYUSH doctors or MBBS doctors with no experience or training). Further, it is also suggested that expansion in Western Maharashtra should be discouraged. Our study has observed that the performance of centres with untrained owners is quite low – one sonography a day - implying that there is ample idle capacity. In this connection, one thinks that there is no need of increasing this idle capacity.

2. The 'F' Form supposed to be submitted by the centres has a column on sex-composition of the children. The data should be analysed along with the information on MTPs. It would definitely help identifying centres where sex-determination tests are being carried out.

3. Column on owner's qualification should be added to the application form. In absence of this it becomes difficult to assess the extent of untrained ownership.

4. Our study has pointed out to the lapses in supervision. The condition in non-corporation areas is worse. Appropriate Authorities should look into it seriously.

5. In spite of the provisions in the act, records are not maintained by the doctors. The Authorities should appraise the doctor about the legal provisions.

6. We have doubt about the reporting of performance. Appropriate Authorities have to have some machinery to avoid underreporting. From the point of view of utilisation of the machine, new machines should not be allowed, if the performance is poor.

7. There should be standardisation in training. Sometimes registration is given on the basis of a certificate given by some doctor.

8. The functioning of doctors with multiple attachments should be carefully examined. Sometimes this attachment could only be for completing the formality for registration.

9. The centres owned by cardiologists, logically, should not come under PNDT act. A serious thought needs to be given.

10. In spite of the PNDT Act, there is evidence of sex-determination test being carried out. This makes us think about the supervision, not only in quantitative terms, but also about 'who should supervise?' A slight doubt arises regarding the supervision of a doctor by doctor only.

11. Our study does not come out with any finding, which is favourable for AYUSH doctors. Therefore, the authorities should think twice before allowing them to use the facility.

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Appendix I : Map showing the distribution of sonography centres in Maharashtra

Appendix II

Data used for the analysis in Chapter 3

Districts	Child sex ratio, 1991	Child sex ratio, 2001	Decline in sex ratio. 1991-2001	Number of sonography centres	No. of sonography centres per 1000 population
Gadchiroli	980	974	-6	5	0.005
Nandurbar	977	966	-11	15	0.011
Gondia	978	964	-14	10	0.008
Bhandara	964	958	-6	19	0.016
Ratnagiri	961	954	-7	56	0.027
Nagpur	951	949	-2	190	0.046
Amarawati	950	947	-3	76	0.029
Sindhudurg	963	946	-17	47	0.045
Chandrapur	965	944	-21	29	0.013
Nanded	960	944	-16	65	0.023
Raigarh	961	943	-18	106	0.047
Yavatmal	961	942	-19	37	0.016
Akola	929	936	+7	64	0.039
Nashik	954	936	-18	213	0.041
Hingoli	953	935	-18	12	0.012
Wardha	952	934	-18	23	0.019
Thane	952	933	-19	426	0.052
Osmanabad	947	927	-20	27	0.018
Parbhani	956	926	-30	36	0.024
Latur	947	923	-24	67	0.032
Washim	941	921	-20	14	0.013
Mumbai (Suburb)	930	919	-11	546	0.063
Buldana	945	915	-30	47	0.021
Jalna	951	914	-37	34	0.022
Dhule	947	907	-40	54	0.032
Pune	943	906	-37	481	0.067
Bid	939	898	-41	61	0.028
Mumbai	942	898	-44	287	0.086
Solapur	935	897	-38	174	0.044
Ahmadnagar	949	890	-59	211	0.052
Aurangabad	933	884	-49	147	0.050
Satara	941	884	-57	209	0.075
Jalgaon	925	867	-58	163	0.044
Kolhapur	931	859	-72	211	0.060
Sangli	924	850	-74	183	0.097

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Features

Female foeticide: The collusion of the medical establishment

By Lalitha Sridhar

The PCPNDT Act prohibits sex selection by any means, before or after conception. But, as one survey in Chennai of 29 ultrasound clinics found, for the medical fraternity it's business as usual

"Women patronise scan centres; they want to know the sex of the child. So many of them come without any pressure from their husbands or mothers-in-law. Doctors who promote scanning to determine the sex of the foetus are only fulfilling a demand in society." So says Dr K R Balasubramaniam, president of the Tamil Nadu Medical Council. His blatant defence is only one aspect of the collusion between the medical lobby and Indian legislators in not preventing the death of that most vulnerable being in India – the female foetus.

The Pre-Conception and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act and Rules 1994 (as amended up to 2002) (the PCPNDT Act) mandates that sex selection by any person, by any means, before or after conception, is prohibited. Then there is the legally binding Code of Medical Ethics, constituted by the Indian Parliament in the Medical Council Act, 1956, that many doctors conveniently ignore.

Doctors are legally bound to report medical malpractice. Says Dr Puneet Bedi, a Delhi-based foetal medicine specialist and anti-foeticide activist: "In medical practice, by the very nature of the profession, everything which is unethical is also illegal."

To the contention that the medical fraternity is colluding in the practice of female foeticide, Dr Balasubramaniam says: "Doctors are not a special tribe removed from society. Therefore, the faults of society will also be found among them."

"Clearly," says a visibly angry Mina Swaminathan, gender activist, "Dr Balasubramaniam neither knows law nor medicine. Given that he represents doctors in Tamil Nadu and speaks for them, we can have a fair idea of the degree of medical malpractice that exists."

"Female foeticide is a crime against humanity," says Bedi. "Doctors as a community are involved. The only surprise for people like us who have been talking about the problem for some time is that people are surprised. Statistics, with all their limitations, ultimately reflect social realities. The zeal with which female foeticide has been pursued in the last few decades had to get reflected in the national census."

The 2001 census registered a decline in the child sex ratio in 80% of the districts in India. The juvenile sex ratio, which stood at 976 in 1961, fell to 927 in 2001, for the country as a whole. Twenty of the 30 districts in Tamil Nadu have a sex ratio at birth lower than the biological sex ratio.

According to government statistics, there are 2,379 registered scan centres in Tamil Nadu alone. This, in a country that critically lacks medical health infrastructure. In Chennai itself, 147 private nursing homes are allowed to carry out medical termination of pregnancy and sterilisation.

Seizure of equipment/machines for non-registration usually results in the release of machines after payment of a fine. After that, it's business as usual. There is virtually no monitoring of the other requirements of the Act. Ninety per cent of deliveries in Tamil Nadu are institutional. Yet, the sex ratio of children at birth is not registered or made available in the public domain.

In a surprise survey of 29 ultrasound clinics in Chennai, by activists from the Campaign Against Sex Selective Abortion (CASSA), staff at one prominent hospital said they were unaware that any

forms had to be filled out by patients. Of the 29, only one maintained the required records.

The PCPNDT Act mandates that any person conducting ultrasonography or any other pre-natal diagnostic technique must maintain proper records. The Act requires the filling up of a written form, duly signed by the expectant mother, as to why she has sought diagnosis. Violations are punishable by imprisonment and a fine.

But one doctor said that during her three-year career she had never mentioned the MTP (Medical Termination of Pregnancy) Act to any of her patients, as she is legally required to when an abortion is performed. A register giving reasons for termination of pregnancy and the period thereof also has to be maintained. But it rarely is.

At another facility, the reception desk claimed abortions were being performed. But the gynaecologist said they were not.

One practitioner is on a National Monitoring and Reporting Committee for violations in the Code of Medical Ethics, but receives numerous 'standard' referrals for ultrasonography every day. Another facility had the 4D TV screen facing the patient for a full view of the examination.

One reputed hospital said 99% of its patients wanted to know the sex of the child. All denied revealing it. Only one ultrasonologist boasted that he could determine the sex of the foetus at 45 days!

Near the one-room clinic of a medical graduate, in a residential suburb of Chennai, a banana-seller told visitors from a non-governmental organisation (NGO): "Abortion? Go there (pointing to clinic)."

The National Health Policy makes no mention of gender, women's health or monitory systems. The Tamil Nadu government has not constituted a supervisory board, as mandated by the PCPNDT Act, to monitor the implementation of the Act and Rules. Legislation has, for years, lagged behind technology.

Already, the abortion pill (part of the state-initiated family welfare programme) makes surgical termination of pregnancy redundant. New non-invasive drugs like antiprogestogen-mifepristone derivatives, which, studies have shown, are 85-97% effective, are available over the counter.

The pressure to enforce the PCPNDT Act seems to have resulted in the opening out of abortion options. The MTP Act offers protection to registered medical practitioners against any legal or criminal proceedings arising out of harm or injury to women seeking abortions, unless the contrary is proved.

Studies indicate that the risk of death is seven to ten times higher for women who wait until the second trimester to terminate their pregnancies. Sex selective abortions are all second trimester abortions.

Dr Saradha Jain, secretary of the Indian Medical Association, warns that the risk of maternal morbidity/mortality needs to be given as much attention as the negation of women's rights to better health. Says P Phavalam, state-level convenor of CASSA: "The female foetus is considered a disease and elimination is done as a service to mankind."

The three chief pre-natal diagnostic tests that are being used to determine the sex of a foetus (sexing) are amniocentesis, chronic villi biopsy (CVB) and ultrasonography. Amniocentesis is meant to be used in high-risk pregnancies, in women over 35 years. This embryonic pre-natal test requires the removal of 15-20 ml of amniotic fluid. The cells have to be cultured for three weeks, or else there is an inaccuracy rate of 10-20%. CVB is meant to diagnose inherited diseases like thalassaemia, cystic fibrosis and muscular dystrophy.

Ultrasonography is the most commonly used technique. It is non-invasive and can identify upto 50% of abnormalities related to the central nervous system of the foetus. But sexing has become its preferred application. Depending on the ultrasonologist's expertise, chances of a correct prediction are 95-96%, with greater accuracy as the pregnancy advances. If the foetus is female, a second trimester, even a third trimester abortion is carried out either by a doctor or a quack.

of Salem, Dharmapuri, Madurai, Namakkal and Theni. But we have strong evidence to prove that the practice is not restricted to these districts alone. Keeping IMR gender differential as the indicator, female infanticide is observed in districts like Trichy, Perambalur, Thiruvannamalai, Karur, Villupuram, Vellore, Erode and Dindigul. So, from the core area it is now spreading to the peripherals. But the state is not keeping pace.

We are against schemes like the Cradle Baby Scheme. It implies that the government is encouraging parents to dump unwanted girl-babies. Is that a correct message? Cradle Baby centres exist in all 30 districts of Tamil Nadu -- even in areas where there is no infanticide! Think of the implications.

Also, the abortion law is liberal and there are no mechanisms to monitor the enforcement of the MTP Act (Medical Termination of Pregnancy Act, 1971). The state's indirect sanction to use the MTP Act as a tool to reduce population size implies that sex selective abortion indirectly enjoys legitimate sanction from the state. The official machinery and the law concern themselves solely with female infanticide, which is actually not as alarming as foeticide now is. Foeticide committed with the assistance of 'ultrasound' clinics is spiralling even in hitherto unaffected areas like Perambalur. Scan centres are supposed to be registered but this is not done comprehensively. Laws exist on paper only. We have agitated and provided authorities with lists of unauthorised scan centres. They are pulled up, they pay a fine, get their machines released and go back to business!

The PNDT Act (Pre-Natal Diagnostic Techniques [Regulation and Prevention of Misuse] Act 1994) was inadequate. It never once mentioned 'sex selection'. The law was concerned only with the foetus from conception to delivery. But sex selection is possible prior to conception, in a laboratory, using genetic means. We filed a case against a doctor in Madurai who openly advertised that he could make male embryos by selecting the required chromosomes. It is two years now, but the case has not yet even come to trial. The judicial process reacts too slowly. Indeed, sex selection is done even in western countries. We are hopeful that the new law, the Pre-Sex Selection and Pre-Natal Diagnostic Techniques (Prohibition of Sex Selection) Act 2002 will overcome some of these drawbacks. As its name suggests, it is more comprehensive in its coverage. Its impact is still to be analysed.

We found in our discussions with doctors and sonologists that prenatal diagnostic techniques are widely used to confirm, monitor and manage pregnancies – almost all pregnant women resorting to institutional deliveries are subjected to ultrasonograms at least four times during their pregnancy, as directed by doctors. Even registered genetics labs, counselling centres and clinics do not maintain records, as specified in Form G of the rules. Registration of abortions beyond 12 weeks should be universalised, including in private hospitals. The specific cause of termination should be mentioned clearly – be it congenital malformation, genetic abnormalities or metabolic disorders. The definition of ultrasonography should be made more explanatory to include all imagery techniques such as ultrasonograms, Doppler scans, CT scans and MRIs, etc. If the purpose of these prenatal diagnostic techniques is to detect abnormalities, then considering the negligible prevalence of such disorders, this kind of rampant application amounts to abuse of medical practice.

It is not only legislation and judicial pronouncements that play a significant role. As I explained earlier, there are overwhelming social ground realities to be reckoned with. The practice of female infanticide has been around for generations. It is a matter of grave concern that modern society, which has emancipated women in so many ways, is yet to come to grips with the issue of female infanticide and foeticide.

(Lalitha Sridhar is a Chennai-based freelance journalist)

InfoChange News & Features, August 2004

Shobha Raghuram

From: ephost@epnet.com
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Subject: Vijayalakshmi, Sex selection articles

6990975.pdf (397 KB)

Record: 10

Title: Preimplantation genetic diagnosis for gender pre-selection in India: a counter argument to the article by Malpani and Malpani.
Authors: Mehta, Rajvi H.
Source: Reproductive BioMedicine Online; Jan/Feb2002, Vol. 4 Issue 1, p11, 2p
Document Type: Article
Subject Terms: *PREIMPLANTATION genetic diagnosis

*SEX preselection
Geographic Terms: INDIA
Abstract: Responds to a commentary regarding the use of preimplantation genetic diagnosis (PGD) for gender pre-selection in India. Opinion on the debate over the intention of using PGD; Claim against conception of using reproduction technology for sex determination; Recommendation.
Full Text Word Count: 1078
ISSN: 1472-6491
Accession Number: 6990975

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PREIMPLANTATION GENETIC DIAGNOSIS FOR GENDER PRE-SELECTION IN INDIA: A COUNTER ARGUMENT TO THE ARTICLE BY MALPANI AND MALPANI

The authors emphasize that PGD, which is "technology used for pre-conceptional sex selection", should not be considered on par with "post-conceptional sex determination techniques (which are actually sex deselection techniques, since they involve termination of fetuses of the undesired sex)". The authors are of the opinion that since PGD does not involve embryo destruction, there should be no "emotions" involved. This may not be true for Indians where the Law of the land permits medical termination of pregnancy (MTP), irrespective of the sex of the unborn. The issue is not about destruction of fetuses or embryos but rather about gender selection! MTP following sex-determination, either by amniocentesis or ultrasound scanning, is illegal in India.

Indeed, Indian population censuses during the past few decades clearly indicated that in contrast to other countries of the Western world, the number of females is far lower than that of males (http://genderstats.worldbank.org). UNICEF has widely publicized this anomalous situation as 'the case of missing females' (http://gendericide.org). PGD for gender selection cannot be considered mere destruction of embryos but selective gender

discrimination. Gender discrimination already occurs at various levels -- fetuses, infants, young girls and women. Law in India prohibits all such discrimination. Do we now need to enlarge the list of sex discrimination to XX embryos containing a bunch of pluripotent cells and cells surrounding them? There cannot be any difference in laws governing sex-selection, whether it be by amniocentesis, ultrasonography or PGD.

Arguing against the concerns for the misuse of PGD for non-medical reasons by ESHRE Task Force on Ethics and Law, the authors give an analogy to cosmetic or re-constructive surgery for non-medical reasons. This analogy is misplaced and irrelevant because these surgical procedures do not in any way affect the social matrix as gender pre-selection does. Society therefore has a right to express deep concern against procedures that would discriminate against one half of its social structure.

The authors state: "The hidden message is that Indians and Indian doctors cannot be trusted to use this technology responsibly, and while it can be safely used in the West, its use in India should be policed". One wonders what privileged insight the authors' had to read this 'hidden message' which has escaped the attention of most of us?

To quote the authors once again: "The basic purpose of technology is to give Man more control over his destiny than he has had in the past. Of course, how he will use this technology is difficult to predict". It is surprising that the authors find it difficult to predict how Man may utilize the technology of PGD for gender pre-selection. It is quite obvious that considering the preference for a male child in several sections of Indian Society, individuals would be misusing it for selecting male embryos and promoting gender discrimination against the female, albeit at a much earlier stage in human existence.

The authors have treated 42 cycles for 36 patients with PGD for family balancing in their clinic but they do not state how many of these came in for a male embryo selection? This would itself explain whether couples would be opting for this technology for gender balancing or for rejecting the birth of a female child!

The authors have misused statistics and figures for their hypothetical example stating that couples who already have one female child and undergo a sex determination procedure, abort the female fetuses so that the sex ratio will be more balanced in the selected group of families. This is the most distorted argument stating that abortion of female fetuses would in fact 'balance' the gender ratio in the select group of families. The data from the Census of India, 2001 clearly show that the sex ratio, which is already skewed against women in the northern Indian states of Punjab and Haryana, have been further skewed in children under 6 years of age (http://www.censusindia.net). In Punjab, there are 874 females per 1000 males in the whole population but only 793 girls per 1000 boys below the age of six. In Haryana, there are 861 females per 1000 males in the whole population but only 820 girls per 1000 boys below the age of six. This clearly indicates a possible misuse of technology such as ultrasonography or amniocentesis and that it could be responsible for this distorted sex ratio. With such data staring at us, how can one argue that 'aborting' female fetuses will bring gender balance?

It is absurd to presume that the affluent couples who go in for PGD "make excellent parents because they have taken the time and trouble to plan their family". Parenting involves much more than planning the family and providing to the materialistic requirements of a child. Affluent parents need not necessarily make good parents! The children of the patients treated by Malpani and Malpani (2002) would not be more than a year old and it is premature to conclude that these couples make "excellent parents" and thereby promote this technology.

The authors' concluding statement "Haven't the politicians interfered in our lives enough already? Do we want to invite them into our bedrooms as well?" is in very poor taste. India is a democracy and legislation passed by our parliament meets the approval of the elected representatives of the country after intense debate and following guidance of expert professionals from a given field. If personal views do not subscribe to those of the majority, this is no reason why legislation, which a majority of our elected representatives feel is for the good of Society, should not be passed.

Today, there may not be many clinics offering gender selection through PGD but it may not be long before this technology is marketed for so-called 'gender balancing' which in reality would be gender pre-selection for a male child. Should we not take action now and prevent furtherance of gender discrimination by PGD rather than wait for 10 years until Census 2011 and then panic on seeing an already distorted sex ratio skewed even further?

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??? Vol 4. No 1, 11-12 Reproductive BioMedicine Online; www.rbmonline.com/Article/440 <http://www.rbmonline.com/Article/440> on web 10 December 2001

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Source: Reproductive BioMedicine Online, Jan/Feb2002, Vol. 4 Issue 1, p11, 2p
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Subject: Vijayalakshmi, Sex selection articles

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Title: Court orders seizure of illegal sex test machines.
Source: National Catholic Reporter; 3/8/2002, Vol. 38 Issue 18, p10, 1/9p
Document Type: Article
Subject Terms: *ABORTION

*CHURCH

*JUDGMENTS

*SEX determination, Diagnostic
Geographic Terms: INDIA
Abstract: Reports that church groups in India have welcomed the Supreme Court order to confiscate ultrasound machines from illegal clinics to fight femal feticide in the country. Need for a change in people's attitude towards women; Factors which lead to female feticide in India.
ISSN: 0027-8939
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the Government of India to take legislative measures to prevent selective abortions of female fetuses. This seems to be a losing battle. Many organizations concerned with this problem are of the view that the only solution is social education, rather than legislation. Changes in societal perceptions occur very slowly in a democratic society. Female feticide must therefore be considered to be a reality until this change takes place.

I had written on the subject of gender pre-selection earlier (Anand Kumar, 1995) and suggested that the development of a reliable, simple method for gender selection of offspring would be an interim solution for the masses who have not as yet reconciled to having a female child, so they could avoid female feticide. Now I would like to consider the ethical issues of gender pre-selection in the Indian context. Discrimination against females from the fetal to the adult stage is a concept that is not in consonance with modern social trends. Women compete very effectively for jobs that were earlier considered to be in the male domain and, strikingly, women most often do much better in certain jobs than men. Despite this, there is still a gender prejudice against women, and this is not exclusive to India: women in Western societies also continue to experience such discrimination in public life, as well as in offices and universities. A reduction in the number of females is therefore an unacceptable proposition, not only to India but all over the world. There is reason to believe that India, while still upholding traditional beliefs in their ethos and culture, would also like to be modern in their outlook. Reduction in the number of females is not a concept of modern societies and therefore would not be acceptable by a very large section of Indian society.

The article by Malpani and Malpani (2001) suggests that prenatal genetic diagnosis for selecting the sex of the embryo before implantation is a solution to the problem. Preimplantation genetic diagnosis (PGD) requires sophisticated laboratory facilities that are not available in rural India. The technique is expensive and affordable only by the rich, who are few and far between compared with other, economically weaker, sections of Indian Society. Malpani and colleagues' suggestion of PGD offering a solution for the masses is therefore impractical. Their contention that PGD offers a medical technological solution to a societal malaise is presumptuous. Reproductive biomedicine, like all other medical technologies, aims to alleviate personal illness and not attempt to offer solutions to societal problems.

If these are technical and ethical weaknesses of the article, one wonders what purpose the article serves?

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Preimplantation genetic diagnosis for gender pre-selection in India: a counter argument to the article by Malpani and Malpani

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The authors emphasize that PGD, which is "technology used for pre-conceptional sex selection", should not be considered on par with "post-conceptional sex determination techniques (which are actually sex deselection techniques, since they involve termination of fetuses of the undesired sex)". The authors are of the opinion that since PGD does not involve embryo destruction, there should be no "emotions" involved. This may not be true for Indians where the Law of the land permits medical termination of pregnancy (MTP), irrespective of the sex of the unborn. The issue is not about destruction of fetuses or embryos but rather about gender selection! MTP following sex-determination, either by amniocentesis or ultrasound scanning, is illegal in India.

Indeed, Indian population censuses during the past few decades clearly indicated that in contrast to other countries of the Western world, the number of females is far lower than that of males (http://genderstats.worldbank.org). UNICEF has widely publicized this anomalous situation as 'the case of missing females' (http://gendericide.org). PGD for gender selection cannot be considered mere destruction of embryos but selective gender discrimination. Gender discrimination already occurs at various levels - fetuses, infants, young girls and women. Law in India prohibits all such discrimination. Do we now need to enlarge the list of sex discrimination to XX embryos containing a bunch of pluripotent cells and cells surrounding them? There cannot be any difference in laws governing sex-selection, whether it be by amniocentesis, ultrasonography or PGD.

Arguing against the concerns for the misuse of PGD for non-medical reasons by ESHRE Task Force on Ethics and Law, the authors give an analogy to cosmetic or re-constructive surgery for non-medical reasons. This analogy is misplaced and

irrelevant because these surgical procedures do not in any way affect the social matrix as gender pre-selection does. Society therefore has a right to express deep concern against procedures that would discriminate against one half of its social structure.

The authors state: "The hidden message is that Indians and Indian doctors cannot be trusted to use this technology responsibly, and while it can be safely used in the West, its use in India should be policed". One wonders what privileged insight the authors' had to read this 'hidden message' which has escaped the attention of most of us?

To quote the authors once again: "The basic purpose of technology is to give Man more control over his destiny than he has had in the past. Of course, how he will use this technology is difficult to predict". It is surprising that the authors find it difficult to predict how Man may utilize the technology of PGD for gender pre-selection. It is quite obvious that considering the preference for a male child in several sections of Indian Society, individuals would be misusing it for selecting male embryos and promoting gender discrimination against the female, albeit at a much earlier stage in human existence.

The authors have treated 42 cycles for 36 patients with PGD for family balancing in their clinic but they do not state how many of these came in for a male embryo selection? This would itself explain whether couples would be opting for this technology for gender balancing or for rejecting the birth of a female child!

The authors have misused statistics and figures for their hypothetical example stating that couples who already have one female child and undergo a sex determination procedure, abort the female fetuses so that the sex ratio will be more balanced in the selected group of families. This is the most distorted argument stating that abortion of female fetuses would in fact 'balance' the gender ratio in the select group of families. The data from the Census of India, 2001 clearly show that the sex ratio, which is already skewed against women in the northern Indian states of Punjab and Haryana, have been further skewed in children under 6 years of age (http://www.censusindia.net). In Punjab, there are 874 females per 1000 males in the whole population but only 793 girls per 1000 boys below the age of six. In Haryana, there are 861 females per 1000 males in the whole population but only 820 girls per 1000 boys below the age of six. This clearly indicates a possible misuse of technology such as ultrasonography or amniocentesis and that it could be responsible for this distorted sex ratio. With such data staring at us, how can one argue that 'aborting' female fetuses will bring gender balance?

It is absurd to presume that the affluent couples who go in for PGD "make excellent parents because they have taken the time and trouble to plan their family". Parenting involves much more than planning the family and providing to the materialistic requirements of a child. Affluent parents need not necessarily make good parents! The children of the patients treated by Malpani and Malpani (2002) would not be more than a year old and it is premature to conclude that these couples make "excellent parents" and thereby promote this technology.

The authors' concluding statement "Haven't the politicians interfered in our lives enough already? Do we want to invite them into our bedrooms as well?" is in very poor taste. India is a democracy and legislation passed by our parliament meets the approval of the elected representatives of the country after intense debate and following guidance of expert professionals from a given field. If personal views do not subscribe to those of the majority, this is no reason why legislation, which a majority of our elected representatives feel is for the good of Society, should not be passed.

Today, there may not be many clinics offering gender selection through PGD but it may not be long before this technology is marketed for so-called 'gender balancing' which in reality would be gender pre-selection for a male child. Should we not take action now and prevent furtherance of gender discrimination by PGD rather than wait for 10 years until Census 2011 and then panic on seeing an already distorted sex ratio skewed even further?

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Reproductive Technologies in India
Confronting Differences

RUPSA MALLIK

In the last two decades the use of reproductive technologies (RTs) has become an inevitable and often indispensable part of women's lives.[1] On the one hand, the increased knowledge and availability of a wide range of RT options has redefined 'traditional' notions of conception and procreation. On the other, the introduction of each new device or technique has served to renew a growing flux in the way reproductive choice is understood. The right to bodily integrity – defined as the inalienable right of women to have control and autonomy over their bodies – has been central in the feminist understanding of choice. Women's expanded access to reproductive technologies (RTs), including abortion, is an essential corollary to this argument. Access to certain types of RTs have indeed saved women's lives and often provided them with expanded choice with regard to reproductive decision-making. However, there is a continued need to evaluate the role of RTs in gendered terms and examine their role in providing women with real choice. This need becomes particularly acute in the face of the growth of the non-medical use of RTs to satisfy individual and sociocultural needs.

Women's bodies, in particular her reproductive functions, are increasingly being subjected to technomedical interventions to satisfy non-medical aspirations with regard to conception and procreation. The case of sex selection and sex selective abortion in India is a classic example of both the non-medical use of RTs and of the misappropriation of the definitions of reproductive choice. In light of this, and numerous other RT-related 'events' in India, there is need for an urgent reassessment of the way bodily integrity is defined in the Indian context. This is imperative in order to be able to frame adequate norms and standards for RT use in ways that do not limit women's access to RTs and at the same time find ways to limit the gendered context within which they often find use. In this article some of these issues will be examined in an India specific context in an attempt to illustrate a conceptual path that might serve to build bridges between different constituencies that are increasingly positioned on opposite sides of a growing chasm.

Contextualising the Reproductive Rights Discourse

The feminist discourse on reproductive rights rests on the notion of procreative liberty defined as the right to reproduce (positive right) and the right to avoid reproduction (negative right). Both these rights carry with them an implicit assumption of first, bodily integrity

– the right to control and autonomy over one's body – and second, an implicit assumption of the use of varied RTs. For example, the negative right to avoid procreation can be attained through access to abortion. However, this right based claim cannot be universalised and needs to be examined in a relational context (Menon 1995; Steinbock 1998).

In India, women's health and rights activists have often emphasized the need to define reproductive rights and choice in gendered terms so that its fulfilment is not only dependent on the availability of technical choice and information. It is indeed important to argue that RTs cannot be viewed as a magic bullet that will help alleviate women's reproductive 'burdens'. When this is done with little or no effort to change the often oppressive arrangements for reproduction, the result can be a reinforcement of gender based inequality. The misappropriation of prenatal obstetric diagnosis and abortion, by families and medical community alike, to systematically eliminate female foetuses is one example. The introduction of hormonal and other provider-controlled contraceptives has also been the site of controversy. Besides questions concerning the safety of these methods, the government's efforts to achieve its demographic goals by using women as the vehicles for population control, while disregarding their safety and well-being, has been harshly criticised.

Unfortunately, controversies surrouding the use of RTs have resulted in the consolidation of opinion, in line with moral and legal absolutes, rather than producing a constructive dialogue between the different constituencies. As Birke pointed out, the "problem with moral absolutes is that they do not take [us] far, they tend to result in an insensitive politics, which says little about the needs that gave rise to the discussion in the first place" (Birke *et al* 1990, p. 282). Hidden within these absolutes is the female person whose specific context and needs often find no place in current discussions. Little or no account of the social position of women, and the socially determined needs that position generates, is taken into account when pronouncing judgments (Petchesky 1980). Just as pushing technologies without addressing arrangements for reproduction often proves to be detrimental, 'banning' a technology without advancing non-exploitative definitions and methodologies for use of RTs serves little purpose. There is an urgent need to undertake this task as increasingly "these technologies and the 'choice' they offer are gaining considerable validity for women who are its direct users" (Mallik 2002, p. 189). In the absence of choice in real terms, these RTs often represent the only power base for women from which to negotiate the terms of their existence (Rowland 1985). The legitimacy of the non-medical use of RTs is a powerful example where women are as much the agents seeking sex selection as they are victims of the social pressure to have sons.

There is a need to examine the introduction of certain types of RTs in India within a framework that responds to the process of technological advance as a whole rather than as isolated procedures. It is, for example, important to be able to illustrate the way the RT industry has built its profits on the basis of reconstituting reproduction into varied 'pathologies', more often than not through reinforcing gender based stereotypes and inequalities. Previously, reproduction was regulated largely through sociocultural principles. Today this reality remains unchanged and further overlaps with technomedical control. Together these serve to create a complex terrain on which decisions about reproduction (by women) are made. At the same time it is important to deconstruct, for example, how non-medical use

of RTs for sex selection has gained legitimacy as a result of their potential to alter the balance of power between individual men and women, as well as between women and institutional control – something that is not fully understood (Gimenez 1991). It is evident that the advent of RTs and their use, particularly non-medical use, has precipitated the need to redefine our understanding of procreative liberty and, more specifically, issues of reproductive choice and autonomy.

Needs Interpretation – Who Defines the Female Lifeworld?

In India the varied interpretation of what women need has resulted in polarised debates on the need and importance of talking about reproductive rights and choice; and within that the need to expand women's access to RTs. Interpreting needs has been reduced solely to a political idiom in which conflict is played out through inequalities, which are differentially positioned and then symbolically challenged (Fraser 1989). The interpretation of needs with reference to reproductive rights, choice and the role of RTs, for example, is often talked about within a dichotomous and hierarchical framework that characterises socio-economic and cultural-symbolic injustice as two separate injustices. Socio-economic injustice and the need for a politics of redistribution is often favoured over a politics of recognition that talks about cultural-symbolic injustice. The first step towards being able to frame a meaningful discourse around reproductive rights and choice means bridging the gap between these two struggles and illustrating the interconnectedness that exists between the two.

This understanding can be a first step towards building bridges between the two constituencies that are currently aligned as being those that fight inequality, and those that stress difference and fight for recognition. In pooling resources it is possible to participate more equally in what is currently an unequal discursive struggle to influence the agenda for the development and use of RTs. Making a dent on the existing scenario, currently dominated by big pharmaceuticals, the medical community and the Indian state through its undue emphasis on anti-natalist population policies, is a complex and difficult goal in both theory and practice. The fragmented and varied nature of claims made by and on behalf of women often acts as an impediment in countering the more homogenised discourse of these powerful actors.

The deterministic role that RTs play in women's lives, and the fact that a woman's body is often the site for this technological advance, is an irreversible fact today. Furthermore, it is important to note that the wide range of RTs have the power to directly impact social relations that govern procreation and conception. For example, sex selection and sex selective abortion in India has dramatically redefined both conventional notions of biological reproduction and kinship building, as well as altered the way women experience pregnancy and motherhood. It is also an undeniable fact that in a culture which can only be described as being extremely antagonistic to women there is a misuse of RTs. However, none of the above should deter or undermine efforts to evaluate the potential of technologies in making *real* improvements in women's lives. Feminist activism should come together to undertake the collective task of developing a holistic vision of RTs that combines transformatory goals to advance women's reproductive well-being within the need based context of women's lives.

NOTES

1. For the purpose of this article the term 'RT' is used in its broadest sense to indicate the wide spectrum of devices and techniques that facilitate fertility control, infertility treatment and prevent sexually transmitted infections and disease.

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Ethics

EPW Commentary March 6, 2004

Urgent Concerns on Abortion Services

While the Medical Termination of Pregnancy Act (MTP Act) has existed for 33 years, certified and legal abortion facilities account for only a quarter of all such private facilities in the country. Neither the public nor private abortion services have fully measured up to the needs of the abortion seekers.

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For many decades now maternal health has been recognised as a crucial area of concern. Access, safety and legality issues regarding abortion and abortion services in India have assumed serious dimension in the context of women's reproductive health needs. The Abortion Assessment Project-India (AAP-I), an all-India research study that commenced in August 2000, was initiated with the objective of assessing ground realities through rigorous research.

Facility surveys in six states, household based surveys in two states, nine qualitative studies in seven states, a policy review and nine working papers undertaken in this project highlight the inadequate attention given to abortion within the health and population policy of the country and reiterates the often voiced concern that even the recent reproductive and child health programmes have failed to address.

Abortion facilities mapped in six states (Kerala, Madhya Pradesh, Orissa, Rajasthan, Haryana and Mizoram) reveal that there are four formal (medically qualified though not necessarily certified/ registered to provide abortions) abortion facilities per 1,00,000 population in India. This adds up to 40,000 facilities or 48,000 providers (each facility averages 1.2 providers). Of the formal abortion providers 55 per cent are gynaecologists and 64 per cent have at least one female provider, with each facility performing 120 abortions per year on the average. This adds up to 4.8 million, with one-third being conducted in public facilities. There are more or less similar numbers of informal (traditional and medically non-qualified) abortion providers handling about one-third of cases handled by formal providers. Based on these studies our estimate is that about 6.4 million abortions are performed annually in India.

While the Medical Termination of Pregnancy Act (MTP Act) has been around for 33 years, certified and legal abortion facilities account for only 24 per cent of all private abortion facilities in the country. The 380 facilities (285 private) across the six states covered in the study provide evidence that those who were certified had obtained certification on an average within a month and of those who were not certified, 68 per cent had not even attempted to obtain certification. Thus the problem lies largely in the domain of the medical professionals who have not shown interest in registration, probably because they do not want to be accountable to the authorities. This is when two-thirds of the providers in the non-certified facilities had the requisite training or qualification as per MTP Act to conduct abortions; thus a majority of uncertified facilities are perhaps providing safe abortions. The latter was confirmed by the fact that with regard to technical aspects and infrastructure facilities the difference between the certified and non-certified facilities was small. Lack of ethics in medical practice and absence of self-regulation amongst the profession is largely responsible for the present state of affairs – including the proliferation of sex selective abortion.

Our studies also found that 73 per cent of abortions were conducted for less than 12 weeks gestation. Dilatation and curettage (D and C) seems to be the preferred method for nearly 89 per cent of induced abortions. Even amongst those who use vacuum aspiration the practice of check curettage is very common. This obsession with curettage both adds to the cost of the procedure and contributes substantially to post-abortion complications and infections.

While physical access seems to be reasonably good, social access remains restricted since providers, especially in the formal and certified facilities, do not provide services to women if they come alone and/or if the spouse or some close relative does not give consent. In the household and qualitative studies women said that the decision for undergoing an abortion is rarely their own; more often than not their spouse or some relative decides for them. This affects the woman's freedom to access such services. So, to protect her confidentiality and privacy she may often resort to providers who may not be very safe. As

regards reasons for seeking induced abortions, only 15 per cent of them fall into what is permitted under the MTP Act (failure of contraceptives, threat to the woman's life, biological reasons), the rest were unwanted pregnancy, economic reasons and even unwanted sex of the foetus. The household based household surveys in Maharashtra and Tamil Nadu, qualitative studies and working papers all indicate the prevalence of the practice of sex-determination and female-selective abortions.

Public investment in abortion services is grossly inadequate. Only 25 cent of abortion facilities in the formal sector are public facilities, and 87 per cent of the abortion market is controlled by the private sector; the average (median) cost of seeking abortion in the private sector is Rs 1,294, which is 7.5 times more than the cost in public facilities. This constitutes a major barrier for women from poorer or other disadvantaged social groups. The household studies under this project reveal that women from poorer classes and from dalit and adivasis communities have significantly lower rates of induced abortion because they often do not have the purchasing power to access abortion services from the private sector or travel long distances to access public services. This makes a strong case for both strengthening as well as expanding public abortion facilities across the country.

The eight qualitative studies revealed that the overwhelming reason for seeking abortion among married women was to limit the family size. When women were asked to indicate the situations in which they would seek abortion or had actually sought abortion, the majority of the women in studies conducted in Maharashtra, Gujarat, Andhra Pradesh and Tamil Nadu reported limiting the family size as the main reason for abortion. Equally disturbing was the finding that non-use of contraception rather than contraceptive failure was reported to be the chief reason why the unwanted pregnancy situations described above tended to occur. Actual contraceptive failure was reported in very few cases. Though all respondents across studies reported knowledge of sterilisation as a method of limiting family size and a majority of the women knew about the reversible methods of contraception such as condoms, oral pills and IUD for spacing births, yet this knowledge did not translate into practice for a range of reasons – fear about its effect on health, pain and discomfort, irregular supply and problems with obtaining permission from husband. Use of condoms for contraception was rare. Paradoxically, there was a perception that abortion was safe and did not have any long-term adverse health consequences. For some respondents it was seen as a 'safer' option than the use of IUDs and other spacing methods!

Also, almost all women were aware that sex selective abortion was illegal, and admitted that women approach different facilities for ascertaining the sex of the foetus and for abortion. Awareness of the new PNDT Act was far greater among women and service providers in comparison to the details of the MTP Act. Group discussions invariably turned spirited when sex selection was discussed. While most respondents admitted that sex selective abortion is indeed illegal, they expressed helplessness as their status in the family and sometimes the very survival of their marriage depended on their ability to produce sons. The studies also revealed that when couples have more than two female children, then female selective abortion was approved by the family and condoned by the community. There was no social stigma associated with sex selective abortion – especially for mothers with many daughters. Women from Gujarat and Haryana also reported that while they were not comfortable with abortion per se, when it was done for the sake of the family, then they accepted it.

There was an overwhelming perception that private facilities were better. The reason for preferring private providers was quite wide, suggesting that the women and their families do weigh the alternatives before deciding where to go. Reasons cited by women were:

– Abortion in private facility takes much less time – everything is done in one visit, meaning that they do not waste time waiting and going through formalities (as most government hospitals are not client-friendly) and that everything could be wrapped up in one visit.
– Private doctors have better facilities and equipment and that they are not in a hurry to discharge women soon after the procedure if they need rest for an hour or so before going home. In public hospitals, on the other hand, given a shortage of beds women are asked to leave as soon as possible.
– Private doctors treat women with dignity and ensure confidentiality.

It was accepted that while private providers are expensive, visits to the government hospitals were not cost-free because women had to pay for medicines separately. They were sometimes required to make

repeat visits before the abortion was performed. The long waiting period implied that the time of the service seeker and of the accompanying person (generally women do not go alone to impersonal large facilities) was wasted, leading particularly in poor families forgoing wages for that time. The cost varied according to the type of provider and the gestation period. For example, the cost in private facilities in urban Gujarat varied between Rs 400-600, similar to what women in urban Andhra Pradesh had to pay.

In a two-day National Consultation with experts working on reproductive health issues across the country, held in Delhi in November 2003, the following issues were flagged as needing urgent attention:

- Changing the mindset of providers through their professional associations to accept certification on a universal basis.
- Integrating abortion services under primary health centres and community health centres through a strengthened RCH programme which would automatically enhance women's access to abortion care services.
- Promoting safer technologies by changing the mindset of providers away from unnecessary use of curettage.
- Strengthening regulation of abortion facilities to evolve minimum standards for quality care and accreditation.
- Promoting safe spacing methods of contraception to reduce the need to resort to abortion as a spacing method.
- Broadening the base of providers by training paramedics for early trimester abortions as is done in many countries like South Africa, Bangladesh, etc.
- The need to widely display certification status of abortion facilities so that women can recognize a safe abortion facility.
- The need to educate providers on ethics of sex-determination tests and respecting the provisions of the PNDT Act.
- The need for medical associations to get active in training abortion providers, especially those in the private sector.
- Promoting apprenticeship as a method of training.
- Reskilling of traditional providers to play alternative roles like accompanying/supporting abortion seekers to safe abortion facilities.

To conclude, the various studies undertaken under the aegis of AAP-India project clearly indicate that neither the public nor private abortion services have fully measured up to the needs of the abortion seekers. While private providers need to be regulated and made accountable to the law as well as educated about safer technologies for improvement of both safety and quality of abortion services, the public sector needs to extend its presence, especially in rural areas, as well as strengthen the provision and quality of existing services to measure up to the satisfaction of abortion seekers. The RCH second phase being planned currently needs to factor the issues flagged above in their strategy if reproductive health and healthcare are to improve in India.

Negative choice

RUPSA MALLIK

[C]hoices exist that did not before, people make decisions about procreation in the context of an expanding range of possibilities... the arenas of decision-making have proliferated, there are new domains and social actors involved, new alliances of medicine, ethics and law, not to speak of commerce (Edwards, et al. 1999:2).

NO engagement with abortion in India can be undertaken without considering first the issue of sex determination (SD) and sex selective abortion (SSA).[1] SSA underscores the profound complexities that surround the abortion debate in India. Today, more than ever, there is wide-ranging consensus in India that this practice is morally and ethically unacceptable and the urgency to address it has gained tremendous momentum. However, the intersecting 'spaces' occupied by sex selective abortion and women's right and access to safe abortion create a number of thorny overlaps that make the consensus urging a ban on sex determination *appear* laden with ambivalence and contradictions.

The right to bodily integrity, defined as the inalienable right of women to have control and autonomy over their bodies, has been central to arguments made by reproductive health advocates to demand for women's access to reproductive technologies (RTs) including abortion. Access to reproductive and genetic technologies has indeed provided women with expanded choice as well as numerous benefits with regard to reproductive decision-making. At the same time, unregulated provision and use of RTs has served to create new challenges and exacerbate gender-based inequities.

In this paper, a three-part analysis of the practice will be undertaken. First, the context – son preference, growth in the political economy of diagnostic technologies and enforcement of a small family norm through population policies – is discussed. Second, the key debates on the issue – with regard to development of RTs, the regulation of these technologies as well as the discourse on abortion – is examined. In conclusion, the emerging regional patterns with regard to SD and SSA have been illustrated.

For women, family based relationships are a source of support as well as sanction. However, support often rests on conformity with predetermined norms. Traditionally, childbearing, in particular the birth of a son, is one such norm that a large number of women in India have to abide with. Contemporary developments like the availability of diagnostic technologies for sex selection coupled with the desire for smaller families (as a result of population policies that enforce a two-child norm) have served to create new dynamism in family building strategies. The use of RTs creates the potential to alter what was once considered the 'immutable processes' of repeated child-birth (Edwards 1999:2) to have sons to include 'discretionary childbearing' (Goodkind 1996:115) to prevent the birth of daughters.

The emergence of this phenomenon, however, should not be viewed as a *sudden* consequence of the availability of diagnostic technologies. It should be seen as an additive strategy (Goodkind 1996) within the existing continuum of discrimination against women and female children that has resulted in excess female mortality and the decline in the sex ratio.

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* This is an abridged version of a paper with the same title written for the Abortion Assessment Project.

1. While SD and SSA can mean the selective abortion of foetuses of either sex, this paper discusses the widely prevalent trend of aborting female foetuses in India.

Discrimination against girl children is the direct outcome of son preference. Mutharayappa, et al. have described three major factors that result in sons being favoured over daughters in India. First, the continued belief in the economic utility of sons as family labour, wage earners as well as support for parents during old age. Dowry also serves as an economic incentive to have sons just as it serves as a disincentive to have daughters. Second, socio-cultural factors like patrilineal descent and inheritance as well as other aspects of kinship building serve to create conditions that sustain female disadvantage and inequality. Third, within religion sons have been accorded the unique privilege of performing various rituals, including the last rites for deceased parents. All these together create a higher premium on having sons.

Other related factors identified as intensifying discrimination against girls during the past decades include marginalization of female labour as a result of the shift to mechanized forms of agriculture. The shift to cash crops too served to create enormous wealth within certain communities, particularly in North India, which led to higher demands for dowry and a heightened perception of female liability within the household (George 1997, Miller 1981).

Modernization, defined as increased access to education and communication technology, has also contributed in the diffusion of SD and SSA. This is notable in the role that mass media plays in the spread of upper caste values and the accompanying anti-female bias. Adoption of these norms by communities that have traditionally been more egalitarian towards women has also served to intensify discrimination against women (Agnihotri 2000).

It is within this adverse setting that the political economy of diagnostic technologies needs to be examined. Currently, three types of technologies are available to screen and identify the sex of the foetus – amniocentesis, chorionic villious sampling and obstetric ultrasound. Amongst these ultrasound is non-invasive and currently the most widely used method for sex determination. It is important to note that the use of ultrasound to monitor foetal and maternal health has become almost a routine and recommended component of prenatal care. Simultaneously, there is little that distinguishes the provision of the test for legitimate reasons and those for the purpose of SD. Much rests on the ethical conduct of medical practitioners and radiologists.

By the mid-eighties, ten years after the technologies were first introduced in the country, clinics had proliferated in most parts of the country, though mainly restricted to urban centres. For example, one study (1986) estimated that there were 248 clinics and laboratories, and approximately 16,000 tests were performed in Mumbai metropolitan region annually (Lingam 1998). The growth in the number of clinics continued throughout the nineties. In a single district of Haryana, 65 ultrasound clinics have been registered (Pushkarna, *The Week*, 2002). With growth in the number of clinics and easy availability of these tests there has been a corresponding drop in the price of obtaining a test, which fluctuates between Rs 500 to 1500, though some have pointed out that recent efforts to ensure effective implementation of the ban on SD has served to double the cost of clandestine SD tests.

Recent efforts by the government to enforce a two-child norm as well as voluntary desire for smaller families can potentially serve to exacerbate SD and SSA. Scholars have pointed out that the desire for fewer children is not necessarily accompanied by a preference for a fewer number of sons. Till date, son preference continues to be a significant determinant of family planning strategies, although this is strongest for birth orders two or more (IIPS and ORC Macro 2000).

As India undergoes its fertility transition the conditions exist for an intensification in SD and SSA. Retherford and Roy (2003) use NFHS data on the sex ratio at birth as an indirect indicator to assess prevalence and determinants of the practice. They argue that multiple factors influence the levels of SSA confounding the effect of any single variable. Some of the important predictor variables identified by them include a composite variable of the child's birth order and the mother's number of living sons, education levels of women as well as rural-urban residence. The authors also point out that the potential for SSA to increase is greatest in states like UP, Bihar and Rajasthan where there is continued evidence of strong son preference. Currently, these states have low sex ratio at birth but with increased availability of information and technology for SD this can change.

For over two decades there has been a sustained campaign against SD and SSA. A significant focus of activism has centred on the demand for laws that ban sex determination and regulate the medical use of diagnostic technologies. Recently, the focus has simultaneously been on the effective implementation of the law. The history of the activism can be broadly divided into two phases. The first decade of activism was dominated by the campaign by the Forum Against Sex Determination and Sex Pre-Selection (FASDSP) and resulted in the formulation of the Pre-Natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act, 1994.

The second decade of activism has been symbolized by renewed activism on the issue of SD and SSA but most importantly on the implementation of the PNDT Act, 1994 and subsequent public interest litigation (PIL) filed in the Supreme Court of India resulting in improved implementation as well as amendments to make the existing law more effective. A main feature of the amendment was bringing within its purview new technologies used at the preconception and preimplantation stage for sex selection.

Contention and controversy have characterized key debates amongst the various constituencies, in particular the activists who urged a ban and the medical community, some of whom opposed the ban. Three broad themes underpin these debates and are discussed in some detail. First, the role of RTs and the gendered context in which they find use; second, the usefulness of regulatory frameworks to guide their use; and finally, the dual agenda of promoting the right and access to safe abortion while curbing sex selective abortion.

'FASDSP does not believe in saying a categorical "no" to technology. But certain questions have to be asked: Is there a qualitative difference between the various technologies? If so, how does one identify it and if not, how does one evolve criteria by which a distinction can be made to help determine those technologies that are desirable and appropriate?' (FASDSP 1992: 91).

The reproductive technologies need to be examined through a lens that extends beyond the procedures to include the socio-cultural and economic context in which they find use. The most significant contribution of feminist analysis of RTs has been to demonstrate the gendered context within which these technologies are often used. However, RTs continue to be often seen as scientific progress that helps reduce women's reproductive burden. This shortsighted view of technologies as magic bullets makes little or no effort to address the unequal arrangement and disproportionate burden that women bear with regard to reproduction (Birke et al. 1990). The case of SD and SSA is a stark example of how RTs can result in reinforcing women's oppression.

Feminist advocates remain divided with regard to defining a position on new reproductive technologies. Some in the past (e.g. Feminist International Network of Resistance to Reproductive and Genetic Engineering) have advocated a blanket ban. Others emphasize the ambivalent effects that RTs have on women's lives. As a way out of this deadlock the debate on science and technology can and should be framed around two broad issues – that of political control and of morality and ethical standards (Nelkin 1992: x). For example the FASDSP's demand to regulate diagnostic technologies and ban SD tests is an effective strategy that highlighted the disproportionate control of the medical community over the provision of these technologies and the absence of moral or ethical standards in the use of that power.

The medical community, till date, remains slow to acknowledge its role in fuelling SD. Doctors claim that the use of amniocentesis and ultrasound is a part of routine antenatal care to judge the quality of the pregnancy. They resist any attempts through law to curb the free provisions of these tests, and over the years many have continued to provide them freely in spite of the existing law.

'Dr M.L. Verma, the attending doctor on Saturday, met this reporter when she visited the hospital posing as a pregnant woman. The story trotted out was that she and her husband did not want the baby. But as her in-laws insisted on a boy, she wanted to get the test done. Dr Verma was willing to do it, assuring that the test was very simple. He added that if the sex of the baby was "not satisfactory", they would carry out an abortion the next day... he did not even conduct a cursory medical examination and when asked about the well-known dangers of the test dismissed it... "Today in the morning I have done three tests." He said that they had conducted 20 tests in a week' (Chaturvedi, *The Statesman*, 1994).

Often doctors who admit to providing SD claim they do it as a result of client pressure. They cite instances when they have refused tests and been labelled 'bad' doctors which in turn affects their practice. Many others have argued that they are in fact doing a good deed by preventing the birth of a female infant who will subsequently be the victim of gender-based violence.

'Dr V.K. Vats in charge of the Hiralal Nursing Homes is completely unabashed about carrying out sex determination tests. "It has been going on for a long time and a handful of city people cannot decide what the rural people want. In my opinion, it is better to abort a female foetus rather than give birth to her. In all probability, she will be burnt for not bringing enough dowry' (Dasgupta, *The Telegraph*, 1994).

'It is one thing to legislate that an individual should not be forced to procreate against her will, and thereby protect legal access to contraception or abortion. It is quite another to derive from this legal protection the belief that individuals have the right to procreate by any means possible. Hidden in this discourse of means is the female person who is used' (Raymond 1993: 79).

To some, viz., members of FASDSP, the need for regulation appears self-evident. But there are many who oppose regulation. The opposition comes from two quarters –

the medical community and certain feminist groups. The latter fear that regulation of these technologies by law can potentially undermine the hard fought gains with regard to women's reproductive rights, in particular the right to abortion. This does not mean that these groups condone the practice but rather that they differ on the strategy to address it.

In spite of efforts by the medical community to water down the law, the PNDT Act sets an important legal precedent to regulate RTs. One positive effect of this law has been its ability to curb rampant growth and advertisement of SD clinics. Another important outcome has been to highlight the negative role of the medical community in the widespread misuse of diagnostic technologies.

Framing a social problem in the formal and specific language of law has first clearly defined all the key players and their roles in promoting the practice and, second, put in place institutional mechanisms to enforce norms that will regulate the practice. Legislation and regulation provide a framework within which the role of multiple actors and institutions can be concretely measured and evaluated. For instance, regulation has a critical impact on the larger medical and pharmaceutical industry that has sprung up around reproduction in general and SD in particular, of which doctors are only a part.

The difficulties and gaps in regulating the use of technologies like obstetric ultrasound for SD should not become the basis for an argument against regulation. A number of measures can be taken to ensure effective implementation. For example under both the MTP Act, 1971 and the PNDT Act, 1994, specific sites have been classified for legal provision of these services. Universal registration of these sites and listing of diagnostic equipment, granting licenses and requiring that they be prominently displayed, among others, could help curb misuse.

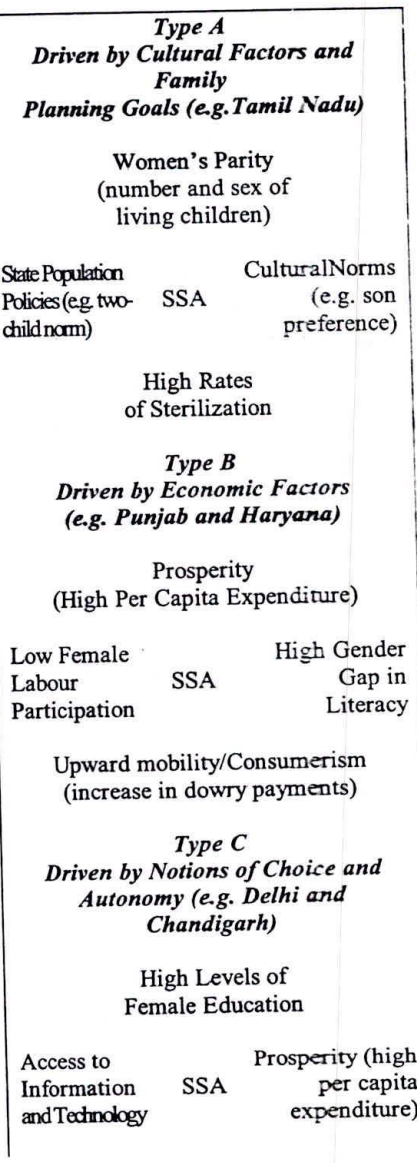
The PNDT Act can be the first step in a broader effort to regulate the private health care sector. The law, as currently implemented, fails in that it does not specify the role that has been played almost single-handedly by the private sector in spreading SD and SSA across the country. It is worth noting that SD was banned in all public facilities in the mid-seventies.

Having discussed the usefulness of laws it is important to point out that they are at best a first step in addressing deep-rooted injustice. George (2002), one of the three petitioners of the PIL, points out that a law and effective use of the judiciary can bring pressure on the executive branch of government to do a better job of monitoring use of these technologies, guide medical ethics that till date have been seriously lacking with regard to SD and SSA, and at the same time serve as a catalyst to address deep-rooted patriarchal norms within Indian society. Other policy and programmatic efforts, however, need to be simultaneously made to address the factors that serve to sustain discrimination and violence again women.

The non-medical use of technology and abortion for the sole purpose of sex selection must be distinguished from women's right and access to safe abortion. Some within the medical community have argued that if women have the right to abortion then by extension they also have the right to choose the sex of the offspring and therefore SSA.

Sex selective abortion is, however, not the result of an unintended or unwanted pregnancy. It is in fact the gendered preference for a certain type of pregnancy that guides the decision to undergo sex selective abortion (Mallik 2002). The discussion of strategies to address unsafe abortion is often conflated with the discussion on SSA resulting in demands to 'tighten' the MTP Act.

'Yes, it is true that women seek amniocentesis to have female foetuses aborted, but should the state compel a woman to rear a daughter she does not want? A ban on sex determination tests will impose unwanted pregnancies on women... [it] will restrict the right of Indian women for having abortions. It will tell women that they can decide the number of children, but not their sex' (Kala, *The Statesman*, 1994).



Preference for Small Families

Sex selective abortion currently accounts for roughly 11 per cent of late-term, unsafe abortions in India (Johnston 2002). It is important to recognize that SD and SSA cannot be addressed by placing limits on the availability of abortions for women. Rather, it will serve to heighten their vulnerability. When SD and SSA are viewed as a continuum it is evident that effectively curbing SD will automatically lead to a reduction in SSA and thus in unsafe abortions. On the other hand it is easy to see that arguments that favour curbing abortion do little to address or reduce SD.

Health risks posed by SD and SSA that might otherwise not occur also need to be highlighted. Tests like amniocentesis carry with them the risks of spontaneous abortion and infection. Amniocentesis requires trained medical technicians to carry out the test, and even in those instances the possibility of injury to the placenta or to the foetus remains. There is evidence of tests being performed by untrained persons with inadequate equipment and in poor conditions (Ravindra 1995).

Separate laws – MTP Act to reduce unsafe abortion and PNDT Act that bans SD – and the varied implimentation strategies that stem from the diverse objectives of the two acts provide the possibility of emphasizing the difference between the two. Unsafe abortions can be reduced through access to contraception, in particular spacing methods as well as emergency contraception, improving the efficacy of those methods, better antenatal care, among other things. SSA, on the other hand, is part of a family building strategy to ensure the birth of only sons and can be addressed by strategies that focus on empowerment and education of women. Finally, there is critical need to build on women's own perspectives and dilemmas with regard to seeking abortion and, in particular, SSA.

As India goes through a fertility transition, regional patterns are emerging with regard to factors that appear to fuel sex determination and sex selective abortion within those specific contexts (see diagram). The inter-relatedness of these various factors cannot be emphasized enough. The intention, however, is not to generalize or strictly allocate any one type to a particular region/state but to illustrate the complexity embedded in the host of issues that constitute the terrain within which SD and SSA takes place in India. The objective is to illustrate the need for a multi-pronged policy and programmatic approach within which laws and their effective implementation have an important role to play.

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Law - Human Rights

FEMALE FETICIDE OR CRIME AGAINST HUMANITY?

For a hundred years in the late nineteenth century not a single female child was born in the royal house of the Raja of Porbandar. Reviewing research on female infanticide in contemporary India, Harriss-White, reiterating Amartya Sen, observes that the declining sex ratio since the turn of the century points to the fact that the missing women are a social product. Agnihotri's painstaking documentation of district level data on sex ratio differences in the 5-9 age group, lead him to map a Bermuda Triangle of twenty four districts in North India where the sex ratio of children averages 774 girls to a 1000 boys (Harriss-White 1999). Research from the southern state of Tamil Nadu shows that two thirds of female infant deaths and forty percent of female neo natal deaths are due to "social causes." More recent work on sex selective abortion, points to the abortion of one lakh female fetuses after sex determination tests during pregnancy in the last three years, the more affluent sections of the Indian population actively practicing 'gender cleansing'.

While the Pre Natal Diagnostic Testing Act is seen as a solution to this problem, the magnitude of the problem urges a re-orientation to the problem itself. Juxtaposed to this is the need to make a clear distinction between the woman's right to abortion and the right of the female fetus against abortion. This question is further complicated by the fact that there is no clear gender line between those that demand female feticide services and those that do not. It is women, often older women in the family who make the most vociferous demands, and it is predominantly women in the medical profession who provide the services. The standpoint of most doctors on this issue echoes the argument of procreative autonomy that has been developed in US courts (see Dworkin 1996: 72-116). This right is one that developed with respect to the right to contraception and was extended to argue that whether or not, or when to have a child was part of the right to privacy, and that mothers especially had a right to procreative autonomy. The relevance of the principle of procreative autonomy [and more generally the right to privacy] to the Indian context is two-fold to begin with. First, with respect to coercive family planning or population control programmes of the state, this right includes the right to refuse family planning without detriment to the entitlement to state welfare; it also includes the right to free, full and informed consent with respect to the use of contraceptives. There is in this sense, an immediate link between the right to procreative

autonomy and the right to life and livelihood of the mother with respect to conditionalities for receipt of welfare or participation in government [loans or the right to run for political office to those with two children or less, for instance] and with respect to the dumping of hazardous contraceptives on masses of poor women, a direct human rights injury.

On a second level the relevance is negative. While procreative autonomy must certainly include the right to abortion, this right must be mediated by the state's commitment to women's right against discrimination. The selective abortion of female fetuses, in this context, cannot be interpreted as part of the right to procreative autonomy, since it is a practice of discrimination. Yet, this is not an issue that is simple and subject to a linear interpretation. The very use of the term feticide implies the acceptance of fetal rights and of the status of the fetus as a person, veering dangerously close to the position of anti abortionists who raise the issue of fetal rights as a limitation on the right to procreative autonomy. The problem in tackling the issue of female feticide arises precisely on this score. Doctors and medical professionals tend to read this demand as a matter related to procreative autonomy and encourage that autonomy in female feticide service seekers. Further if fetal rights are granted to female fetuses, they must also be granted to other classes that are silently exterminated as well. The specific case of disability may be raised here. It is accepted practice, medically, legally and socially to demand and provide abortions if fetal abnormalities are detected. The effect is the same and pushes us dangerously close to the eugenic standpoint. The rights of persons with disability must include the right to be born. The issue of abortion forces a synthesis of jurisprudential reasoning with a political reading of rights as they have been articulated in movements. Abortion, as a decision of whether or not to have *a* child is a matter of procreative autonomy for the mother. Sex selective abortion and the more recently discovered practice of sex selective conception however invokes the right to life of women as a class which includes the right to be born.

By this argument, female feticide must be seen as part of the practice of killing female children. Female feticide alone already matches, even surpasses the worst episodes of crimes against humanity in scale. There are clear correlations between the proliferation of sex determination tests, increase in sex selective abortions [female feticide] and decline

in sex ratio with urban areas showing sharper drop in the sex ratio than rural areas. And not only do the numbers increase each year, but techniques for eliminating the birth of girl children proliferate. The most recent method of exterminating girls that is on offer is sex selective conception. Nussbaum provides a very useful and nuanced reading of the intersection of privacy jurisprudence with questions of culture, difference, equality and rights, arguing among other things that there must be "a reliance on equality and equal protection where the relevant issue involves systematic hierarchy and subordination" (Nussbaum 2004: 273).

The Universal Declaration of Human Rights opens with an assertion of the equal inalienable rights of all members of the human family to inherent dignity and the recognition that the aspiration of the common people for a world that is free is based on their experience of barbarous acts, which have outraged the conscience of humankind. Articles 1, 2, 3, 7, 16 (3), 22, and 25 (2) specifically relevant to the present purpose address questions of entitlement to dignity and freedom without distinction of race, colour, *sex* etc., assert the right to life, liberty, security of person and equality before the law; the entitlement of the family to protection by the state; the entitlement to the realization of social security; motherhood and childhood are entitled to special care and assistance. *All children, whether born in or out of wedlock, shall enjoy the same social protection*; and finally that everyone is entitled to a social and international order in which the rights and freedoms set out in the Declaration can be fully realized. Add to this a view of the Genocide Convention. For a crime to be defined as genocide, any of the following five acts should have been committed with intent to destroy a group in whole or in part: a) killing members of the group (b) causing serious bodily or mental harm to members of the group (c) deliberately inflicting on the group conditions of life calculated to bring about its physical destruction (d) imposing measures intended to prevent births within the group (e) forcibly transferring children of the group to another group.

Female Feticide and female infanticide satisfy four of the five criteria set out in the Genocide Convention. Female feticide alone already matches, even surpasses the worst episodes of genocide in scale. Conservative estimates drawn from the 2001 census indicate 15 lakh missing girls in the 0-6 age group in a period of six years marking a

sharp decline in the sex ratio. In the 0-6 age group, the 2001 census shows a decline in sex ratio from 945 girls for every thousand boys in 1991 to 927. Punjab is at an unspeakable 793. There are clear correlations between the proliferation of sex determination tests, increase in sex selective abortions [female feticide] and decline in sex ratio. And not only do the numbers increase each year, but techniques for eliminating the birth of girl children proliferate. The most recent method of exterminating girls that is on offer is sex selective conception. While much of this is advertised as serving the interests of sex balance in families, "one baba, one baby," the selection itself speaks a different tongue. Both the doctor and the customer conspire to eliminate the possibility of the birth of a girl, while sex selective abortions of male fetuses are unheard of. In the light of Article 21 of the Indian Constitution, female feticide, by bringing about the physical destruction of an entire class of persons by actively preventing births of members of that class, is a direct infringement on the right to life, dignity and security of person for surviving members of the class as also their mental well being, through the creation of an environment of terror and hate engendered by such mass destruction.

Further, the sheer magnitude and brutality of the practice coupled with the guarantee of impunity are masked by the terms in which feticide has been described to date: "A social evil" because "girls are viewed as a burden by society" and because "doctors are greedy," resulting in a "shortage of girls" making it difficult for young men to find brides, we are told! Girls are a commodity that can be bought and sold in the market, so why bother to give birth to them? And the solutions then typically lie in awareness raising, and educating people about the better ability of girls to look after them in their old age. It is in the naming that the problem lies, and it is because of the naming that the problem persists. Female feticide is *not* a social evil. It is *gender cleansing* – the extermination of an entire generation of women, and by extension all future generations as well.

Meeting the definition of genocide on four out of five counts, but not being an act against a national, ethnic, racial or religious group, rather a class of persons, it falls within the ambit of "Crimes against Humanity." The Rome Statute of the International Criminal Court, in Article 7 defines "Crimes against Humanity" as "any of the following acts when committed as part of a widespread or systematic attack directed against any civilian

population, with knowledge of the attack: (a) *Murder*; (b) *Extermination*; (c) Enslavement; (d) Deportation or forcible transfer of population; (e) Imprisonment or other severe deprivation of physical liberty in violation of fundamental rules of international law; (f) Torture; (g) *Rape, sexual slavery, enforced prostitution, forced pregnancy, enforced sterilization, or any other form of sexual violence of comparable gravity*; (h) *Persecution against any identifiable group or collectivity on* political, racial, national, ethnic, cultural, religious, *gender*, or other grounds that are universally recognized as impermissible under international law; (i) Enforced disappearance of persons; (j) The crime of apartheid; (k) *Other inhumane acts of a similar character intentionally causing great suffering, or serious injury to body or to mental or physical health*. "Extermination" according to the Rome Statute includes the intentional infliction of conditions of life, inter alia the deprivation of access to food and medicine, calculated to bring about the destruction of part of a population. "Persecution" means the intentional and severe deprivation of fundamental rights contrary to international law *by reason of the identity of the group or collectivity*. Extermination through systematic murder of newborn female infants and through abortion of female fetuses [under clause (g) above] is part of the persecution of women as a class [clause (h) above]. In accordance with the Statute then, female feticide meets the definition of a Crime against Humanity strictly construed and not by analogy.

Article 25 of the Rome Statute addresses the crucial question of individual criminal responsibility. Clause (3) states that "a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court if that person: (a) Commits such a crime, whether as an individual, jointly with another or through another person, regardless of whether that other person is criminally responsible; (b) Orders, solicits or induces the commission of such a crime which in fact occurs or is attempted; (c) For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, including providing the means for its commission; (d) In any other way contributes to the commission or attempted commission of such a crime by a group of persons acting with a common purpose...(f) Attempts to commit such a crime by taking action that commences its

execution by means of a substantial step, but the crime does not occur because of circumstances independent of the person's intentions." Families that seek "female feticide services," but more importantly doctors and medical practitioners [and all categories of employees in establishments with ultrasound or other diagnostic or fertility treatment facilities] who use the facilities to either commit or aid in the commission of female feticide, or, to use Satish Agnihotri's phrase "Female Feticide Service Providers" will be liable for punishment for perpetrating crimes against humanity under the provisions of the Rome Statute in far more serious ways than contemplated by the current legislation, which imposes extremely mild punishment for the first offence and then steps it up gradually, the penalty structure itself defeating the purpose. The conspiracy of silence and non-reporting, especially by the medical fraternity, even when definite information of the commission of this offence is available is yet another dimension that must be addressed as also the collective responsibility of professional bodies like the IMA for derogatory practices by members on a mass scale targeting an entire class of persons, practices that use the professional training and qualifications that qualify them for membership in these bodies. Clearly therefore the question of criminal responsibility and liability must be structured on the basis of an understanding of the gravity of the offence – not as a response to a "social evil".

Any enactment of national legislation on female feticide must take cognizance of its occurrence in radically new terms in order to effectively combat it, but more importantly, to put an end to impunity, which is the hallmark of this practice today. While it may be argued that the state has in fact taken steps to stop this practice through the enactment of the PNDT Act, the ineffectiveness of the Act in real terms translates into state liability, not "apathy" since we are not here speaking of individual crime but of mass extermination, for which the mechanisms and the urgency of redressal cannot be a mild legislation like the PNDT Act alone. This is one more reason why India must ratify the Rome Statute.

Kalpana Kanabiran.

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Workshop on Sensitising Media on Sex Determination

Goa, 2-4 May 2003

Presentation:
Protecting the Rights of Girls
by

Dr Erma Manoncourt, Deputy Director
UNICEF – India Country Office

Dear Colleagues, Ladies and Gentlemen:

It is indeed a pleasure, and an honour, to participate in this inaugural session and greet you on behalf of my colleagues at Unicef and the United Nations Interagency Working Group on Gender & Development. At the onset, I would like to express our appreciation to the organisers for this reflection on the practice of sex determination and its contribution to the pre-birth elimination of females.

This meeting comes at a very opportune time since you may recall that in 1990 the heads of the state of the SAARC countries recognised the needs of girls and adolescents. At that time, they agreed that there are vulnerable groups needing special attention and then prepared country-specific action plans to ensure their survival, protection and development. Now, more than a decade later, it is timely and appropriate that to take stock of what has happened and the situation of girl rights in 2003. It is important to judge ourselves not by the long list of things we have done nor the amount of money spent on special campaigns or awareness programmes; we must measure against the increased opportunities, better care and protection as well as reduction in discrimination and/or outright violence that exist against young and adolescent girls.

I've been asked to discuss the topic Protecting Girl Child Rights, as a prelude to examination of the issues, and implications for the media. Last year during the UN Special Session on Children, India along with many other countries, re-affirmed its commitments to child rights. As a result of the concluding deliberations, the Assembly agreed on an far-reaching agenda entitled 'A World Fit for Children,' which sets a framework for operationalising child rights into concrete actions, with particular emphasis on the girl child.
As such my brief remarks aim to provide a lens through which one may wish to examine the data, discuss strategic communication interventions and make proactive advocacy decisions.

What do we know about the situation of girl children in India?

A glance at the Indian Census 2001 figures shows that the demographic situation of women and girls continues to deteriorate. The net deficit of females in India, which was 3.2 million in 1901, has now widened to over 35 million at the Census of India, 2001. Though the sex ratio of 933 females per 1000 males recorded by the Census 2001 is an improvement over that of 1991, it continues to be indicative of a population with gender discrimination. As a population should have, as a norm, at least 1050 women for every 1000 men, because of the inherent biological superiority of women.

In respect to the child population in the age group 0-6 years (927 girls per thousand boys), the situation is even worse, with the greatest decline has been in urban India as opposed to rural. The low child sex ratio is cause of greater concern, as it appears to be a result out of wilful elimination of the female child in early

stages of conception by families. The consequences of this disturbing trend of falling sex ratios is indicative of a trend, which will only increase the vulnerability of women/girls due to their reduced numbers.

What are the attitudes that appear give rise to this phenomenon?

The persistence of social attitudes and prejudices against girls continues to raise considerable concern for UNICEF. Statistics show that they are often neglected in their access to nutrition, health care and education. They are often required to remain at home to care for younger siblings or to work in the household rather than being sent to school and allowed to enjoy their childhood. They are very often the target and victims of gender discrimination, violence, sexual exploitation and abuse.

In India, amidst other socio economic factors, **son preference and practice of dowry** have contributed to deep-rooted discrimination against girls and women. Higher rates of mortality among very young girls, and lower rates of school enrolment for girls as compared to boys, suggest that "son preference" is curtailing the access of girl children to food, education and health care. This is often compounded by the increasing use of newer medical technologies to determine foetal sex, resulting in the elimination of female foetuses.

The task before us is how to change mindsets and move all citizens—from policy-makers to everyday men and women, mothers and fathers, friends and neighbors to act!.

Investments made in the girl child's health, nutrition and education, from infancy through adolescence, are critical. Only through the active involvement of girls, who are at the root of the life cycle, would it be possible to initiate a movement for change and betterment. Through a comprehensive strategy to promote and protect the rights of girls, starting with the younger generation, would it be possible to build a shared and lasting approach for women's development. In other words placing the promotion of human rights of girls at the core of bringing about change and advancement of women.

The role that media can play in tackling negative consequences of sex determination, such as the problem of the pre-birth elimination of females, assumes a very critical place in all discussions relating to human rights and gender equity. In fact, it strikes at the root of child rights – the right to be born and to survive. A rights based approach introduces the following additional considerations in the sex determination debate:

- notion of the legal and moral obligation and accountability of the state and its instutions with regard to meeting the basic needs of its people
- the affirmation that children and women are subjects of rights – this means that they are rights holders, not just objects of charity. This change in attitude initiates a process whereby children, within the context of their evolving capacities, participate in the processes and ecisions that concern them and affect their lives
- the principle that benevolent and charitable actions, while good, are insufficient from a human rights perspective. Instead there must be an understanding that there is a need for shared interests between rights holders and those working to help them realise rights.

Clearly there is value-added from a rights perspective that promotes the following via:

- global legitimacy
- indivisibility, interdependence and inter-relatedness
- non-discrimination
- participation
- accountability – rights holders and duty bearers
- empowerment
- sustainability

As you reflect and discuss over the next two days, I would ask you to keep in four guiding principles, which are the foundation for promoting gender justice, and therefore have a particular meaning for this discussion on sex determination:.

Priniciple 1 - Gender equality starts early

Gender roles, attitudes and behaviours are established within the family and community setting. Creating an environment where girls and boys are respected and cared for equally in early childhood is the first step towards breaking the intergenerational cycles of discrimination and disadvantage and ensuring equal rights for girls.

Principle 2 - Women's rights and girl's rights are interdependent

Only in societies where women have equal rights can the rights of girl children be fulfilled. Thus laws and structures that guarantee equal rights for women are essential both for women themselves and for girls.

Principle 3 – Children's rights cannot be achieved without girl's rights

That no child should suffer discrimination is one of the foundation principles of the Convention on the Rights of the Child. Girls make up half of the population and if their equality is not assured, the Convention goals will remain out of our reach.

Principle 4 – Civil society partnerships are needed to end the marginalisation of women and girls

In order to support change and overcome resistance, new collaborative relationships are needed within communities and civil society, reinforced and nutured by the media. For UNICEF, the participation of non-governmental organisations and media professionals is an indispensable complement to legislative and policy efforts of the Government to mobilise for the rights of girl children.

The role of Media in promoting the rights of girls

Journalists and media professionals have long been champions of human rights – drawing attention to violations and being instrumental bringing about change. They are the eyes and voice of all citizens, demanding the right to expose facts, tell the truth and express opinions.

The work of the media affects children's lives. It influences decisions made about them and the way in which they are regarded by the rest of the society. The journalists and media professionals who write the headlines, tell the stories, select the images and set the tone of print and broadcast coverage, play a vital role in changing public opinion and influencing those who control children's lives. It is a role that often goes unrecognised.

Media professionals can do much to expose shortcomings in the system, but they must also ensure that their stories do not compound the problem. As you engage in addressing the issue of sex determination and its negative consequences, I believe that you are faced with 3 key challenges:

Challenges :

- How to create a sense of public outrage against violence against women and girl children, especially the PBEF?
- How best to sensitise political leaders on the "shame" of gender violence, such as prebirth elimination of females, against women and girls?
- How to empower individuals, families and local communities who are seized with the issue but hesitate to act?

These questions have no simple answers and will not be solved in this meeting; but they require continued reflection and self-evaluation, plus a commitment to a human rights approach to development . So what can you do, as media professionals, committed to children's rights and gender equity? I don't presume to have a definite answer and there are many possible actions, but let me list a few actions for your consideration. There is a need to: ✳

- Raise public awareness
- Provide visibility to gender violence when and where it occurs
- Break the gender stereotype and highlight biases when they occur
- Give voice to girls and women
- Give a balanced portrayal of implementation of the law and the social dimensions of the problem
- Increase public dialogue on partnerships that aim to improve care for girls/women in their families and communities and promote increased male responsibility in family life.

The emphasis given by UNICEF on promoting the rights of girls and women is captured in its Mission Statement: *"UNICEF aims, through its country programmes, to promote the equal rights of women and girls and to support their full participation in the political, social and economic development of their communities"*. Guided by the Convention on the Rights of the Child (CRC) and the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), UNICEF is fully committed to the goals of gender equality and the empowerment of women and girls.

We, therefore, look forward to learning from this workshop – your reflections on the specific communication interventions and innovations to fight against sex selection as a means of advancing children rights, especially those of young and adolescent girls will be of interest to many. As an outcome of your deliberations, I urge you to develop practical, do-able recommendations that can guide all partners working to respect, protect and fulfil rights of the girl child as well as improve her quality of life. In conclusion, I wish you success and hope that the time you will spend at this consultation during the next two days will go a long way in promoting the achievement of the rights of the girl child in India.

Thank you

Child Sex Ratio

An Analysis of Census 2001 Results

Office of the Registrar General, India
2A Mansingh Road, New Delhi 110011

Sex ratio is an index of male-female balance in population

Sex ratio across different groups, communities, areas bring out gender imbalances in the society. For examples, sex ratio in different age-groups, religions, scheduled castes, scheduled tribes

At the Census 2001, sex ratio of population stood at 933 females per 1000 males which is a marginal increase from 927 recorded at the 1991 Census.

In contrast, child sex ratio in the age group 0-6 showed considerable decline from 945 girls per 1000 boys in 1991 to only 927 girls per 1000 boys in 2001 Census

The sex ratio in the age-group 0-6 years Is influenced by

- Sex ratio at birth
- Sex selective mortality at younger ages

The sex ratio at birth is usually a biological constant with a value that lies between 943 to 954. Therefore, the sex ratio of in the age-group 0-6 years is much lower than the globally accepted constant.

Along with the data on population and literates, the data on number of children in the age group 0-6 years by sex was obtained through manual aggregations in the field at various levels immediately after the enumeration was complete mainly with a view to working out the effective literacy rates by sex.

These numbers were utilised to work out the sex ratio in the age group 0-6 years.

When it was found that the child sex ratios in certain parts of the country have recorded alarmingly low values it was decided to highlight this fact in the first report on Census 2001 known as

Provisional Population Totals
Paper 1 of 2001
India

"It is clear that the sex ratio in the age group o-6 has decreased at a much faster pace than the overall sex ratio of the country after 1981. The decreasing sex ratio in this child population perhaps has a cascading effect on the population over a period of time leading to diminishing sex ratio in the country. One thing is clear- the imbalance that has set at the early age-group is difficult to be removed and would remain to haunt the population for a long time to come. To say the least, demographically the sex ratio of 927 of the population in the age-group 0-6 does not augur well for the future of the country. "

– Provisional Population Totals : Paper 1 of 2001 India

The rest is all history

Sex ratio of total population and child population in the age group 0-6: 1961-2001

Year	Sex ratio in age Group 0-6	Over all sex ratio
1961	976	941
1971	964	930
1981	962	934
1991	945	927
2001	927	933

Distribution of States by Child sex ratio -1991 & 2001

Child Sex ratio	States/Uts	
	1991	2001
900 & below	Punjab, Haryana (2)	HP, Punjab, Haryana Delhi, Gujarat (5)
901-950	Uttaranchal, Delhi, Rajasthan, UP, MP, Gujarat, Maharashtra, TN, (8)	Uttaranchal, Rajasthan, UP, Bihar, Orissa, MP, Maharashtra, TN. (8)
951& above	HP, Bihar, Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, Assam, WB, Jharkhand, Orissa, Chhatisgarh, AP, Karnataka, Goa, Kerala (18)	Sikkim, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya, Assam, WB, Jharkhand, Chhatisgarh, AP, Karnataka, Goa, Kerala (15)

Distribution of districts by ranges of child sex ratio in the age group 0-6 – India and major States 2001

Sl. No.	India/State/Union territory	Ranges of child sex ratio and number of districts						Total
		Less than 800	800-849	850-899	900-949	950-999	1000-1049	
	India	16	33	72	213	245	12	591
1.	Jammu and Kashmir	-	1	1	5	3	4	14
2.	Punjab	10	7	-	-	-	-	17
3.	Haryana	5	12	2	-	-	-	19
4	Delhi	-	1	7	1	-	-	9
5.	Rajasthan	-	-	10	19	3	-	32
6.	Uttar Pradesh	-	2	22	35	11	-	70
7.	Bihar	-	-	2	25	10	-	37

Distribution of districts by ranges of child sex ratio in the age group 0-6 – India and major States 2001 (contd.)

Sl. No.	India/State/Union territory	Ranges of child sex ratio and number of districts						Total
		Less than 800	800-849	850-899	900-949	950-999	1000-1049	
8.	Assam	-	-	-	3	20	-	23
9.	West Bengal	-	-	-	1	17	-	18
10.	Jharkhand	-	-	-	3	15	-	18
11.	Orissa	-	-	-	12	17	1	30
12.	Chhatisgarh	-	-	-	1	13	2	16
13.	Madhya Pradesh	-	3	1	27	14	-	45
14	Gujarat	1	3	12	5	3	-	24
15	Maharashtra	-	-	9	21	5	-	35

Distribution of districts by ranges of child sex ratio in the age group 0-6 – India and major States 2001 (contd.)

Sl. No.	India/State /Union territory	Ranges of child sex ratio and number of districts						Total
		Less than 800	800-849	850-899	900-949	950-999	1000-1049	
16	Andhra Pradesh	-	-	-	1	22	-	23
17.	Karnataka	-	-	-	12	15	-	27
18.	Kerala	-	-	-	1	13	-	14
19.	Tamil Nadu	-	1	3	9	17	-	30

Top ten districts according to child sex ratio in the age group 0-6 India: 2001

Sl.No.	District	State/Union territory	Child Sex ratio
1	South	Sikkim	1036
2	Upper Siang	Arunachal Pradesh	1018
3	Pulwama	Jammu and Kashmir	1017
4	Bastar	Chhatisgarh	1014
5	Dantewada	Chhatisgarh	1014
6	East Kameng	Arunachal Pradesh	1011
7	Kupwara	Jammu and Kashmir	1010
8	Senapati	Manipur	1007
9	Mokokchung	Nagaland	1004
10	Badgam	Jammu and Kashmir	1003

Bottom ten districts according to child sex ratio in the age group 0-6 India: 2001

Sl. No.	District	State/Union territory	Sex ratio
1	Fatehgarh Sahib	Punjab	754
2	Patiala	Punjab	770
3	Kurukshetra	Haryana	770
4	Gurudaspur	Punjab	775
5	Kapurthala	Punjab	775
6	Bathinda	Punjab	779
7	Mansa	Punjab	779
8	Amritsar	Punjab	783
9	Sonipat	Haryana	783
10	Ambala	Haryana	784

Child sex ratio in selected states by residence 1991 & 2001

India/ State	Rural		Diff 2001-1991	Urban		Diff 2001-1991
	1991	2001		1991	2001	
India	948	934	-14	935	903	-32
Himachal Pradesh	966	900	-66	904	858	-46
Uttaranchal	952	914	-38	936	874	-62
Haryana	877	824	-53	884	809	-75
Punjab	878	795	-83	866	789	-77
Rajasthan	919	914	-5	909	886	-23
Uttar Pradesh	927	922	-5	928	880	-48
Bihar	953	940	-13	949	924	-25
Assam	977	967	-10	955	931	-24
West Bengal	969	967	-2	955	948	-5
Jharkhand	986	973	-13	950	931	-19

Child sex ratio in selected states by residence 1991 & 2001 (contd)

India/ State	Rural		Diff 2001-1991	Urban		Diff 2001-1991
	1991	2001		1991	2001	
Orissa	969	954	-15	949	927	-22
Chhatisgarh	988	982	-6	960	941	-19
Madhya Pradesh	944	941	-3	931	906	-25
Gujarat	925	905	-20	908	827	-81
Maharashtra	953	923	-30	934	908	-26
Andhra Pradesh	979	965	-14	962	958	-4
Karnataka	963	954	-9	951	939	-12
Kerala	958	964	+6	958	958	0
Tamil Nadu	945	931	-14	955	951	-4

Distribution of districts by child sex ratio in the age group 0-6 for rural areas - India : 1991 and 2001

Ranges of sex ratio	1991			2001		
	Number of districts	Share of population		Number of districts	Share of population	
		Absolute	Percent		Absolute	Percent
Total	568	621,866,456	100	568	732,954,380	100
Less than 800	1	1,739,455	0.3	15	13,856,388	1.9
800-849	1	967,857	0.2	29	24,833,597	3.4
850-899	69	60,563,192	9.7	63	88,560,481	12.1
900-949	156	186,625,451	30.0	201	272,823,800	37.2
950-999	313	361,899,067	58.2	247	328,850,587	44.9
1,000 and above	28	10,071,434	1.6	13	4,029,527	0.5

Note: Excludes fourteen districts of Jammu & Kashmir where Census was not held in 1991, nine totally urban districts and Kachchh and Kinnaur districts of Gujarat and Himachal Pradesh where 2001 Census was not held in Feb-Mar 2001.

Distribution of districts by child sex ratio in the age group 0-6 for urban areas - India : 1991 and 2001

Range of sex ratio	1991			2001		
	No. of districts	Share of population		No. of districts	Share of population	
		Absolute	Percent		Absolute	Percent
Total	565	215,383,755	100.0	568	282,380,679	100.0
Less than 800	0	0	0.0	24	13,405,562	4.7
800-849	5	1,126,912	0.5	53	27,780,152	9.8
850-899	68	23,129,902	10.7	107	52,524,605	18.6
900-949	261	110,785,366	51.4	247	124,129,800	44.0
950-999	216	78,588,567	36.5	129	64,082,576	22.7
1,000-1,049	12	1,733,359	0.8	7	456,160	0.2
1050	3	19,649	0.0	1	1,824	0.0

Note: Excludes fourteen districts of Jammu & Kashmir where Census was not held in 1991, Kachchh district of Gujarat, Kinnaur district of Himachal Pradesh where 2001 Census was not held during Feb-Mar 2001. Thirteen districts in 1991 and ten districts in 2001 are totally rural.

Sex ratio in the age group 0-6 population in million plus UAs and cities: 1991-2001

Rank in 2001	Urban agglomeration/ city (1,000,000 + population)	State	Sex ratio in 0-6 age group	
			1991	2001
1	Greater Mumbai	Maharashtra	934	911
2	Kolkata	West Bengal	954	939
3	Delhi	Delhi	917	866
4	Chennai	Tamil Nadu	962	959
5	Bangalore	Karnataka	948	938
6	Hyderabad	Andhra Pradesh	963	948
7	Ahmadabad	Gujarat	894	792
8	Pune	Maharashtra	941	903
9	Surat	Gujarat	921	830
10	Kanpur	Uttar Pradesh	941	828
11	Jaipur	Rajasthan	909	880
12	Lucknow	Uttar Pradesh	945	901

Sex ratio in the age group 0-6 population in million plus UAs and cities: 1991-2001(contd.)

Rank in 2001	Urban agglomeration/ city (1,000,000 + population)	State	Sex ratio in 0-6 age group	
			1991	2001
13	Nagpur	Maharashtra	944	939
14	Patna	Bihar	919	905
15	Indore	Madhya Pradesh	930	901
16	Vadodara	Gujarat	914	832
17	Bhopal	Madhya Pradesh	941	937
18	Coimbatore	Tamil Nadu	971	923
19	Ludhiana	Punjab	867	818
20	Kochi	Kerala	951	956
21	Visakhapatnam	Andhra Pradesh	965	963
22	Agra	Uttar Pradesh	894	803
23	Varanasi	Uttar Pradesh	964	903
24	Madurai	Tamil Nadu	942	950

Sex ratio in the age group 0-6 population in million plus UAs and cities: 1991-2001(contd.)

Rank in 2001	Urban agglomeration/ city (1,000,000+ population)	State	Sex ratio in 0-6 age group	
			1991	2001
25	Meerut	Uttar Pradesh	928	864
26	Nashik	Maharashtra	931	904
27	Jabalpur	Madhya Pradesh	947	891
28	Jamshedpur	Bihar	948	919
29	Asansol	West Bengal	946	963
30	Dhanbad	Bihar	945	941
31	Faridabad	Haryana	902	848
32	Allahabad	Uttar Pradesh	931	895
33	Amritsar	Punjab	862	770
34	Vijayawada	Andhra Pradesh	949	936
35	Rajkot	Gujarat	909	821
	Total		935	897

Ranges of decrease in child sex ratio in million plus UAs/ cities in 1991-2001

Ranges of decrease	Name of the City/UA
No decrease	Asansol, Madurai, Kochi
1-9	Visakhapatnam, Chennai, Bhopal, Dhanbad, Nagpur
10-19	Bangalore, Vijayawada, Hyderabad, Patna, Kolkata
20-29	Greater Mumbai, Nashik, Jamshedpur, Jaipur, Indore
30-39	Allahabad, Pune
40-49	Lucknow, Coimbatore, Ludhiana
50-99	Delhi, Faridabad, Jabalpur, Varanasi, Meerut, Vadodara, Rajkot, Surat, Agra, Amritsar
100 and above	Ahmadabad, Kanpur

- The situation of girls is of particular concern in rural and remote areas under the strong influence of community and religious leaders
- The educational programmes should be launched to eradicate all forms of discrimination against the girl children and the participation of customary religious and community leaders must be ensured to overcome the negative influences of traditions and customs.
- Effective to educational and vocational system will allow for the harmonious and informed development of children and skills to make free choices in their life and to act in a context of gender partnership both at work and family.
- Eliminate stereotype in educational material and incorporate the CRC in the school and training curriculum to enhance the promotion and protection of rights of girls and to eradicate gender discrimination.
- Eradicate degrading and exploitation images of girl and women in media and advertising. The values and models of behaviour that were portrayed contribute to the perpetuation of inequalities and inferiority.
- Legislative measures to ban all the traditions and customs contrary to the rights of the child would create a meaningful deterrent and clearly contribute to changing attitude.
- The national legislation of the State Parties should clearly recognise the principle of equality before the law and forbid gender discrimination while providing for effective protection and remedies in case of non-respect.
- Law reforms should be undertaken in both the civil and penal spheres against those provisions which deprives the comprehensive protection of the Convention. eg. Linking the age of criminal responsibility to the attainment of puberty.
- The situation of specific vulnerable group of girl children should be separately addressed as they are deprived of their childhood enjoyment and the traditional inferiority is further aggravated by the prevailing external situation.
- Girls below the age of 15 often did household works as adults which is not considered as a "real work". They should be freed from the vicious circle by providing equal chances, equal treatment and education.
- There is an urgent need for gathering information and gender dis-aggregated data in a comprehensive and integrated manner at the international, regional, national and local

Need for the Declaration of the Rights of the Child:

'The child' by reasons of his or her physical and mental immaturity needs special safeguards and care including appropriate legal protection, before as well as after birth.

The rights of the girl child is ensured in Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), in the following articles:

- Discrimination against women, denying or limiting as it does their equality of rights with men, is fundamentally unjust and constitutes an offence against human dignity
- All appropriate measures shall be taken to educate public opinion and to direct national aspirations towards the eradication of prejudice and the abolition of customary and all other practices, which are based on the idea of the inferiority of women.

CEDAW Convention insists that the state parties have the obligation to ensure the equal rights of men and women to enjoy all economic, social, cultural, civil and political rights.

Beijing Convention:

The Beijing Flatform for Action, adopted at the Fourth World Conference on Women, included "the Girl Child" in its 12 critical areas of concern. It recognises that in many countries, the girl child faces discrimination in all stages of life from birth through childhood and into adulthood. It urges the government to take action to provide access for girls to training and information, to enable them to articulate their views and to promote the equality and participation of girls.

The strategic objectives formulated under Girl Child are as follows:

1. Eliminate all forms of discrimination against the girl child
2. Eliminate negative cultural attitudes and practices against girls
3. Promote and protect the rights of the girl child and increase awareness of her needs and potential
4. Eliminate discrimination against girls in education, skills and development and training
5. Eliminate discrimination against girls in health and nutrition

6. Eliminate the economic exploitation of child labour and protect young girls at work .
7. Eradicate violence against the girl child
8. Promote the girl child's awareness and participation in social, economic and political life
9. Strengthen the role of the family in improving the status of the girl child

The General Assembly Resolution on Girl Child, adopted on 9th December 1998, regarding the rights of the Girl Child:

It urges all States to enact and enforce legislation protecting girls from all forms of violence including female infanticide and pre-natal sex selection, female genital mutilation, rape, domestic violence, incest, sexual abuse, sexual exploitation, child prostitution and child pornography and to develop age appropriate safe and confidential programmes and medical, social and psychological support services, to assist girls who are subjected to violence.

PROPOSED CHANGES TO THE MEDICAL TERMINATION OF PREGNANCY ACT, RULES AND REGULATIONS IN THE LIGHT OF CONCERN ABOUT SEX SELECTION

A response from the Coalition for Maternal-Neonatal Health and Safe Abortion

The Coalition for Maternal-Neonatal Health and Safe Abortion is a group of individuals and institutions that advocates equity and rights-based approaches for promoting maternal-neonatal health and access to safe abortion in India. We have learnt of the recent proposal of the Ministry of Health and Family Welfare, Government of India, to amend the MTP Act as a measure to curb the practice of sex selective abortion. In this connection it has been proposed that access to second trimester abortion be limited only for certain indications, and that the service be restricted to certain (government) facilities.

Our position on sex selective abortion

Prenatal sex selection is a gender discriminatory practice that represents misuse of medical technology for irrational and unethical purposes. The PNDT Act with its recent amendments is a key measure for outlawing and eliminating this practice. The Coalition fully supports the need for a range of measures to eliminate the practice of sex selection, including strict implementation of PNDT Act.

On amending the MTP Act

The MTP Act *(10* Aug 1971, as amended with effect from 18 June 2003) has served a vital health-protecting purpose by helping to reduce mortality from unsafe abortion, while giving women the choice of not having to remain pregnant under certain circumstances. Yet despite the provisions of the MTP Act, the large majority of induced abortions have over the years been carried out in an unsafe manner outside the *scope* of the Act. These unsafe abortions have been occurring from the time before sex selection became prevalent, and are an important reason for the high maternal mortality rate in India. We therefore feel that any amendments to the MTP Act (and the accompanying Rules and Regulations) should only be for enhancing access to safe abortion, especially for women subsisting below the poverty line, women living in interior areas and those belonging to vulnerable age or social groups. While it is true that sex-selective abortions usually take place in the second trimester, it must be borne in mind that a large proportion of second trimester abortions takes place for a range of valid indications that fall under the purview of the MTP Act. Restricting access to safe and legal second trimester abortion would have the following consequences:

1. More second trimester abortions, including those for valid indications, would become illegal and unsafe, and hence contribute further to maternal mortality. This is likely to disproportionately affect *poor*, rural and dalit women and adolescents.
2. Any effect of measures to restrict second trimester abortion on reducing sex-selective abortion would be short-lived, because advances in ultrasound and invasive technologies such as amniocentesis and chorion villus biopsy allow sex determination within the first trimester. Restrictions on second trimester abortion might even drive sex determination into the first trimester.

Sex selective abortions are a major social concern. They result from a combination of preference for sons and avoidance of daughters within an environment that promotes low fertility. Addressing people's preference for sex selective abortions would require a multi pronged approach that includes but goes well beyond effective implementation and monitoring of the PNDT Act. These include measures to improve women's status such as stronger implementation of the Dowry Prevention Act, changes in property accession laws in favour of women, programmes for economic empowerment of women and social security schemes for elderly people, especially those who have only daughters. Preventing sex selective abortion would therefore require much more than imposing restrictions on the use of medical technology - it would involve actions beyond the traditional purview of health and family welfare agencies.

Also, given the prevailing international political environment, we are concerned that measures to curb sex selective abortions might be used by interests and organizations that oppose enhancing access to safe abortion, to promote their agenda.

We therefore call upon all concerned persons and organizations committed to women's health and reproductive choice, to lend their voice to opposing measures to restrict access to safe abortion through amendments in the MTP Act.

Comments on proposed changes in the MTP Act, Rules and Regulations

The following comments refer to the draft version of the MTP Act circulated by Ravi Duggal by email on 27 Feb 2004, in response to the request from the Ministry of Health & Family Welfare to coordinate the process of suggesting amendments to the Act.

MTP Act

We do not recommend any amendments in MTP Act because amending the MTP Act will open all its provisions to scrutiny by Parliament. In the current scenario, this carries the risk of risk of additional undesirable changes being introduced that might result in reduced access to safe abortion.

Page 1, Clause 2d and Page 7: Clause 4.c.i & ii

Inclusion of ISM practitioners will increase access to safe abortion and we welcome this amendment, however we feel that in light of the above concerns, making changes in the "Act" to include ISM practitioners be postponed till the environment becomes more favourable to improve access to safe abortion. The latter would include large-scale mobilisation of public opinion on the issue of unsafe abortion. We however feel that the MTP Rules and Regulations may be amended at this stage, since this requires action at the level of the nodal ministry, which in turn is following a consultative process.

Clause 3.2.b (Page 2)

We disagree with the proposed change that for pregnancies exceeding 12 weeks, opinion of 2 doctors, "of which at least one is from a public facility" be necessary. Our reasons for

disagreeing with this change are:
(i) Sufficient numbers of government doctors, leave alone MTP certified doctors, are not available or accessible in rural areas
(ii) In several states, government doctors themselves carry out private practice, hence they would get into an unfair competitive relationship with MTP trained private doctors and gynecologists
(iii) This measure would give unnecessary power and control over access to safe abortion, to public sector doctors, and by extension to government officials and politicians.

Page 2: Clause 3.2.iii

This change (addition of social and economic condition) would be subject to interpretation by the provider. If the provider takes a restrictive view of whether or not a woman faces social or economic compulsions, she would not be able to access an abortion. Hence we feel that this amendment (and the corresponding changes in the rules and regulations) is not required.

The MTP Rules

Page 7 Clause 4.c.i

We feel that differential training requirements for first and second trimester abortions are not required for the following reasons:
i. This measure would restrict providers other than gynecologists and those who have done residency in gynecology and obstetrics, from providing second trimester abortions. A decline in numbers of trained and certified providers will become evident some years after these rules take effect.
ii. There is little evidence to show that differentials in negative outcomes following abortion are related to differences in the training of formal MTP providers.
iii. The advent of medical abortion (misoprostol, used as per WHO guidelines) has made second trimester procedures simpler and safer.

We therefore propose that even for termination up to 20 weeks, sub rule (c) should apply i.e. assistance of 25 (or more as considered appropriate) cases of MTP by a registered medical practitioner in a training hospital or institute should enable them to perform terminations up to 20 weeks. Our suggestion in effect is to make a change to the amendment of 2003.

Page 9 Clause 5.8

This clause needs to specify a redressal mechanism in case the process of inspection or certification/ rejection after inspection is delayed for an inordinate length of time. The options for redressal could be application followed by direct certification by a higher authority (along with an administrative inquiry of the district mechanism by the higher authority) or the filing of a court petition by the applicant in some form.

MTP Regulations

Form II

The reporting formats should include information on medical abortion. We suggest that following indicators be included in form II:

- Number of women for whom medical abortion was initiated
- Number of women in whom medical abortion was completed
- Number of women lost to follow up

We further agree with changes mentioned in 4.4 and 5.5. However we feel that under reasons for termination point (g) relating to social economic compulsions need not be added, as explained earlier.

Other

We suggest that a new addition be made to the regulations in the interests of improving the quality of services:

"Service management guidelines for carrying out medical termination of pregnancy, covering the technique(s) employed by that facility, should be physically available in the print form on the premises of all government and private MTP facilities. In case the facility or provider is using medical abortion, then guidelines for the same should be available on the premises. The service management guidelines should be based on government approved guidelines for the same."

Kirti and Sharad D. Iyengar, ARTH
Indu Capoor, Pallavi Patel and Yd. Smita Bajpai, CHETNA
K Pappu and Anuradha R, CINI
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For

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Features

'Treating infanticide as homicide is inhuman'

By Lalitha Sridhar

Prosecuting women such as Karuppayee, the first woman in Tamil Nadu to be convicted of female infanticide, is hardly the answer to the problem of female infanticide and foeticide, says P Pavalam, state-level convenor of the Madurai-based coalition NGO Campaign Against Sex Selective Abortion (CASSA). The role of the state and society in perpetuating the secondary status of women is the real issue to be addressed

How has the issue of female infanticide survived, even flourished, in spite of awareness and laws that should serve as a deterrent?
The female infanticide issue is not a new one. Sexual violence is spread over various cultural set-ups. Only the methods differ. It is not peculiar to India, or, within the country, to south India. In Tamil Nadu, it is considered chiefly prevalent in the Madurai, Salem and Dharmapuri districts. But it is spreading – so are ultrasound clinics – to Namakkal, Theni, etc. Official mechanisms do not pay any attention to the spread.

The socio-economic background to the issue has to be understood. In Madurai district, the practice was mainly prevalent within the Kallar community. It is important, however, not to stereotype people. The Kallar men migrated and the women were employed in agriculture, which catered to all their needs. Marriages usually took place among relatives. The dowry system was not in vogue. Upto the 1950s, the status of women was high.

But life in the villages is not the same any more. Agriculture is an inconsistent employer. In many villages, the quality of life for labourers has steadily deteriorated. Anti-women customs, some of them imported from outside, have steadily gained ground.

When we conducted a survey in the Usilai area (Usimlampatti taluk), of the 120 girls who participated in our questionnaire, 57 were Kallars, 39 dalits and 24 members of other backward communities. From their responses we were able to assess the impact of new economic policies, marriage customs, dowry, physical and mental violence, migration, even alcoholism, on the status of women in society. Where the women's position in society is significantly undermined, there is female infanticide. This link is undeniably present.

What are the tools available to address the issue, and how well do they work?
We believe that gynaecologists, VHNs (village health nurses), adolescent girls, general physicians, the entire health infrastructure, panchayat presidents, village elders, spiritual and religious leaders, even teachers should speak out against infanticide. As activists, we find their opinions significant. We have tried to engage them in our campaign against infanticide/foeticide.

It is very important to understand that in the worst affected districts the killing of girl-children is sanctioned by society. Neighbours and family members are likely to know about the occurrence; they even support such incidents. Some mothers are co-opted willingly. Like I said, this is not a new phenomenon. It has only become bolder, more technology-assisted.

Unless young girls are raised to feel confident about their gender, to have self-esteem, we can only firefight, not eliminate the phenomenon. The media too has a role to play. Films and television serials stereotype the role of women in society. Scripts include lines such as: "I am helpless because I am born a woman." "If only I had not had a daughter." "Daughters are a burden we must carry till our death." These only serve to emphasise the fact that there is no escape from the problems of being an Indian woman.

The media does not give consistent coverage to the issue. There is a sudden rash of reporting, particularly if the case is sensational or tragic. Take the example of Karuppayee. A case was filed

against her and her husband in 1994. Her first-born male child and third-born female child met with natural deaths. She strangled her fifth girl-child the day the baby was born. The Indian Council of Child Welfare lodged a complaint. The police moved with great alacrity. By 1996, she was convicted but her husband was let off because he was not present at the scene of the 'crime'. Karuppayee made big news because she was the first woman in Tamil Nadu to be convicted of female infanticide. She was interviewed umpteen times and attained the status of a 'notorious celebrity'. Her case is pending before the high court and she is out on bail. The impact of all this on her life has been terrible. She no longer wishes to meet the media and has become a recluse. She prefers not to interact at all. We have interviewed over 25 women who have been convicted. Many have been badly scarred by their experiences. It is true that, as a strategy to instil fear in the minds of potential perpetrators, the media coverage served a good purpose.

Inasmuch as the media is concerned, there is no follow-up, no regular review of the case and the campaign. The issue is too complex to label people either 'good' or 'bad'.

In another case, where the husband was convicted, the wife herself was the complainant. Although the man is in jail, and there was marital strife from the start, the couple made up and the woman has had another child by him. Women are often completely subservient to male patriarchal values and hierarchies. A woman often has no identity without her husband.

When the whole issue is centred around awareness-building and bringing about social change at the fundamental level, sustained and balanced media support can be invaluable. However, it is not forthcoming. We at CASSA have in fact noted that media coverage of our activities has steadily declined in the last two years. It seems female infanticide is not newsworthy anymore.

CASSA opposes the conviction of mothers culpable of female infanticide. Please explain.
We believe that treating infanticide as homicide and charging the mother and other members of the family under the Indian Penal Code is inhuman and excessively harsh. The social structure and value system is fiercely patriarchal. Intense family and social pressures drive women to kill their own babies. The woman is helpless and has no power over her own decisions. A woman who participates directly or indirectly in the killing of her own child is actually in the deepest denial of her self-value. She should not be punished and must be treated with sympathy and concern. She herself is a victim.

Also, the impact of judicial action has been devastating. Families have been displaced, broken up, older children have dropped out of school, convicted women have shown suicidal tendencies, the event has caused financial indebtedness, and, when both parents are jailed, older children have become destitute. When families are placed in remand, the social ostracism itself becomes a punishment more severe than anything the courts can give. Besides, women in custody do not receive post-natal care.

According to government data, there were 2,568 reported cases of female infanticide in Tamil Nadu in 2000. Amongst these, only 16 were brought to book. What can the state do about the rest? The role of the state and society in perpetuating the secondary status of women is the real issue to be addressed. Otherwise, women are simply punished twice over. "If the baby is a girl, don't come back," they are told. It is not a threat to be taken lightly when the woman's survival, and that of her other children, depends on her family.

What are the other concerns?
It is our contention that IMR (infant mortality rate) gender differential and sex ratio at birth are the two key direct indicators to understanding female infanticide and foeticide. Our studies have shown that even if there is a slight improvement in IMR differential, it is negated by a decline in the sex ratio at birth. In other words, districts where the practice of infanticide seems to be on the decline show an alarming drop in sex ratio at birth (an indicator of female foeticide). There has been a consistent fall in infanticide between 1996 and 2001 in all the blacklisted districts. It is foeticide that is the real threat now. But this is poorly understood and addressed.

We are campaigning for the United Nations and the World Health Organisation to recognise IMR gender differential and sex ratio at birth as standard indicators. Not only India, many countries like China for example have son-preference. No standard official data is available as of now. This is a great drawback.

With regard to female infanticide, the government is chiefly concerned with the notorious districts

Says Bedi: "In societies like China and India, infanticide has been practised with all kinds of social sanction. The act of abortion, even the term 'foeticide' is designed to de-sensitise, clinically, the act of foetal murder. The MTP Act further trivialised the issue of foeticide. There has been an inability to discuss the issue of foeticide without the larger debate on abortion, which is legally allowed and has been seen as a triumph of the women's rights movement in the country."

Some doctors feel that the resultant de-sensitisation has meant, unfortunately, that foeticide can no longer be separated from gender unspecified abortions. Bedi adds: "We may have to, for some time at least, revive the guilt of foetal murder. It would be calling a spade a spade."

An excerpt from the Hippocratic oath, written 2,300 years ago, reads like an accurate prophecy of doom: "Our mistakes are not discovered by the patient (or their kin in case of the deceased)...and even if they are...they may whimper but rarely scream...and the worst penalty a doctor has to pay for his sins is disgrace...and it is surprising how little it (disgrace) bothers those who are used to it."

(Lalitha Sridhar is a Chennai-based freelance journalist)

InfoChange News & Features, August 2004

Memorandum to SCW to relieve the victims of female infanticide who are accused guilty under Sec 302

Context:

The prevalence of female infanticide is now well established in Tamil Nadu. According to the data revealed by DANIDA Foundation, female infanticide in Tamil Nadu is 15.8 per thousand live births. This practice is rampant in Salem District where 54.3 female children are killed for every 1000 live birth. Dharmapuri accounted for 42.1; Theni 36.1, Madurai 20.4 and Vellore 24.6 (November 28, 2001: The Hindu). It has been reported that in Dharmapuri alone 105 female infants had been killed every month through out 1997 (Christian Medical Journal of India, April – June 1998, citing a report from the Pioneer) and 3000 female infants were said to be killed during the period 1998 – 1999 in Dharmapuri (Dinamani dated July 10, 2000). The intensity of this inhumane phenomenon is getting worse in Theni and Salem as per the data for the year 2000 (PHC records).

In 1994, a criminal case was registered against one Ms Karuppayee from Usilampatti, an agricultural coolie worker, who was said to be indulged in killing of her new born girl. She was proved guilty and convicted for life imprisonment by Madurai Sessions Court, in 1996. Inspite of judicial pronouncement, the incidence is not scaled down

Issues and Concerns:

Our contention is that the IMR Gender Differentials and Sex Ratio at Birth are the two key direct indicators to understand the incidence of female infanticide and feticide. The statistical data from 1996 to 2000 are taken for analysis to understand the impact of the deterrent nature of the judicial intervention to tackle the issue of female infanticide. In the year 1996, Karuppayee was convicted with life imprisonment for the act of female infanticide. This first case was highlighted by the media to a larger extent, as a strategy to instill fear in the minds of the potential actors.

It is in this context, the IMR gender differentials for the period 1996 to 2000 in the districts of Dharmapuri, Madurai, Namakkal, Perambalur, Salem and Theni is discussed here. The sex ratio at birth for the same period in all the above districts is also interpreted.

If we carefully watch the trend, the following inferences can be made:

1. There is no reversal of the trend which is clear from the IMR Gender Differentials Table.
2. If there is a slight improvement in IMR gender differentials, it is negated by the decline in the sex ratio at birth. In other words, the districts where the practice of infanticide seems to be reduced are showing an alarming decline in sex ratio at birth (practice of female feticide)
3. The spiral effect of both these violence (female feticide and female infanticide) are spreading to new areas. To illustrate, Perambalur showing a drastic decline with regard to sex ratio at birth. The IMR Gender Differentials shows a drastic increase in districts like Salem and Theni.

The report of State Human Rights Commission for the year 1998 quoted the following data, after study and verification of data by the Commission with J.D of health services.in Dharmapuri District.

Data for the year 1997:

Name of the Block	Death due to social causes
Pennagram block	261
Nallampaatti block	226
Karimangalam	130
Palcode block	125
Morappur	110
Dharmapuri block	106

The commission as a result of the enquiry has only insisted on the awareness and as matter of procedure requested the police to do an inquest into every death of female child. Altogether there were 1260 deaths in 18 blocks in Dharmapuri District. What is the procedure the State can follow in dealing with these cases?

There are reported cases of 2568 in Tamil Nadu in the year 2000 according to the government data. Amongst them, only 16 cases are brought to book. From five districts, the practice/violation has spread to 13 districts. From a particular community, it has percolated down to other communities. It is in this context, it is imperative to assess whether legislation and judicial pronouncement play a significant role or are there any ground level realities.

Fundamental issues for reflection:

In a society where girls live under a constant threat of being sexually exploited both within the family and outside, where the evil of dowry is so rampant despite anti dowry laws, where daughters are killed and tortured, where a daughter-in-law or wife is thrown out of the house for giving birth to girls, where there are no social and economic security provisions for old age and parents having daughters are left alone after their daughters marry without any physical, economic, financial and emotional security, where religious beliefs enjoin that the last rites can be performed only by sons, what else can be expected of parents.

This insight on structural violence on women has not been understood by the Judiciary.

We quote that " educating them that there is no gender difference, women have equal rights to men, women are assured of thirty percent reservation in government employment and panchayat raj institutions. In the midst of these programmes, it is very pathetic that the rural folk still remain unaware". The learned Judge views the whole situation as an issue of awareness raising and leaving the structural issues in air. We do not negate the role of education , but mere functional literacy will not solve the issue. The issue of gender division of labour and discriminating values and the role of state and other Institutions in perpetuating the secondary status of women still an issue to be addressed In the case of Neelavathy who was convicted for the commission of infanticide, the court never took cognizance of the victims state of mind.

The victim was expecting a male baby and the news of the birth of a daughter affected her. She had all clinical symptoms of postpartum psychosis. When she had the mindset that she would be respected only by giving birth to a male child and by giving birth to a girl child, she has burdened the family. With that mind set, without understanding the consequences of her act, she killed the new born. Like Neelavathy, there are several others who are the victims of patriarchal values and they are suffering from the illness of depression and mental agony. The court never takes into account the mental health of victims of female infanticide at the time of commission of the act..

Any civilised state is supposed to protect the human rights of all the members of the State. But, in the context of women, she is experiencing nothing but violence right from womb to tomb. The state policies and state laws never render or reflect gender justice.

Moreover, the State itself is giving priority to urban over rural, profit over nature, elite's interests over ordinary people and male over female. This gender hierarchy is further perpetuated by the caste hierarchies and market based production process which is globalised.

In a society where women are not valued and considered as an object and not a subject, the entire goal of the society is based on profit motive and the right to life and livelihood has not recognized as value. So women do not have any self value and they have deny their self value in a painful way. They are pitted against themselves on each other in the most merciless way. Underlying is the deepest denial of self-value and the desperate preparedness for self-victimization. This requires exodus from victimhood to sovereignty. Thus, the elimination of the female infants after birth is an act of self-victimhood

The net result, it could be claimed, is that the woman get punished twice over – once by depriving her the right to be born and to be alive and again by punishing her for killing her baby girl; as expected of her by community custom and also as an act of mercy to spare her daughter the agony and tears of her own life.

Profile of the victims against criminal cases had been filed under 302:

Society for Integrated Rural Development (SIRD), a Madurai based Non-governmental Organisation has documented the socio-economic profile of 24 victims of female infanticide. The focussed group discussion, several fact finding visits, reflection with the victimised persons, their community have raised several questions.

Status of the cases:

- In 20 cases, mothers are both exclusively and jointly victimised. In 17 cases, the father is both exclusively and jointly victimised. One sixth of the cases are filed in the name of members of the natal family of the mothers.
- In 19 cases the victims were released under bail. In one case, the victim is under judicial custody for nearly 8 months. In only one case, the victim was acquitted. In one case, the victim was convicted and released under conditional bail after 8 months imprisonment. In one case, the victim is under imprisonment.

Impact of judicial action against the victimised families:

- One family has been displaced
- Domestic violence is acute in 14 families and 2 couples are separated.
- Suicidal tendency is seen in all the 24 cases and 3 women had attempted suicide and one succumbed to death.
- All the 24 families are in chronic depression and anxiety.
- In 10 families the children remained as orphans when their parents were in judicial custody.
- 12 families are indebted.

Denial of human rights to the girl children of the victimised families:

- The girls of the victimised families pay the heavy penalty and labelled for being a member of penalised families. They are forced to face very difficult circumstances especially when the parents are under judicial custody. The universally acknowledged repository of caring and security, the family has proved to be a physically, psychologically and sexually threatening environment for the growing girls.
- Education has become an expendable option and they are forced to have lesser entitlement to care and attention. Their childhood is crowded with domestic chores and the self-image the society creates for her is one of the worthlessness, servitude and dependence.
- The young girls' prospect for all round development is severely constrained.
- Societal discrimination and neglect override on the vulnerability of the children can initiate a life-long downward spiral of deprivation and exclusion from the social mainstream.
- The labelling has negative implications for her marriage, physical mobility. The psychological scars left in the minds of these girls adds to their self-negation. They are victims of extortion and additionally they are tormented and terrorised by the anti-social elements and their own relatives. The odds staked against them are too many

to oppose single handedly. They also experience some type of psychological distress in the aftermath of crime. Immediate reactions are fear, anger, shame, self-blame, helplessness and depression. Long term reaction can include sleeplessness, loss of concentration and fear of being alone. Though they resent their situation, they are forced to sell their labour to meet the basic needs of the family. So even after the release of the victims from the judicial custody, they continue to work as labourers.

- In this context, how are we going to rectify the situation. The real pathology lies with the criminal justice systems which bent upon punishing the already victimised victim (mother of infant girl). So, whole criminal justice system needs through review in favour of mothers. It should uphold the rights of victim to represent herself throughout the case starting from FIR to trial. And also, Judges should be sensitised about the victims' perspective.

Are these 24 women and their families more sinned against than sinning? Are we punishing the victims of patriarchy rather than its perpetrators? Didn't they kill the female babies they had been taught to devalue from childhood, mainly to ensure their own survival in their marital homes? "If the baby is a girl, don't come back" is the injunction not to be taken lightly. There is no massive education campaign to publicise the basic biological reality that it is the chromosomes of the father that determine the sex of the baby. Given the reality that vast stretches of rural India still reel under patriarchy in its crudest forms, is it realistic to penalise its victims for not standing up to it? Whose fault is it that the woman, who labourers more than the man, and subsists on much less, has come to be perceived as a liability? Furthermore, State is now targetting men and natal family members which would likely lead to even more violence on women. As the criminal action is repressive against the poor families, there is more family disorganisation. As these families are labelled as criminals for the action which is legitimised by the community, some of the families are supposed to displace. It is counter productive in some cases where there is more demand for dowry while arranging marriages for their daughters.

So without addressing the root issue behind this social crime, the State is punishing the victimised families.

The earliest efforts to eradicate Female Infanticide:

- In 1808, Alexander Walker, Chief President of Baroda, encouraged the chiefs of different clans to enter into deeds to renounce this evil practice of killing female infants. Penalty was imposed on the violators.
- An infanticide fund was also set up to defray marriage expenses.
- He also extended cash awards to parents of girls.
- Regulation 8 of 1803, declared female infanticide as cognizable and punishable criminal offence,
- In Punjab, it was diagnosed that the intense factional rivalry was the cause of female infanticide. So the State established marriage bureaus.
- Johan Strachey enacted a Special Act of 1870, applicable to North, West Province, which suggested an enlarged police force, increased surveillance, regular and thorough census and restriction on marriage expenses. It was also declared in 1872 that those clans which had a proportion of girls less than 40 per cent of the total population were declared very guilty of crime of female infanticide. Thus the entire community was deemed to be responsible for every criminal act of exterminating female infants.

Art 6 of the Convention on Rights of Children, cast the duty upon the State to ensure the maximum extent possible the survival and development of the child.

Art 21 of the Indian Constitution guaranteed the right to life of every person.

The underlying perspective in all the above efforts is that the State / Community are always held responsible for the social evil of female infanticide. But now, the responsibility is shifted from State / Community to individuals and families. This is a clear indication of the abdication of State responsibility and shifting the role to the families. So it is imperative to view those who are indulged in this crime as victims and not as criminals.

A case of reparation:

The protection and promotion of human right to a large extent is based on the concept of state responsibility. In addition, when a society is legitimising the killing of girl children and when the feminine gender of this patriarchal society has been victimised by brutal forces of tyranny and oppression, reparation is a means to foster a process of healing,

not only for the sake of morality, but also to build a lasting right to survival. Reparation also implies the acknowledgement that serious wrongs were done to another party.. In the case of female infanticide, the state is the major violator. Reparation as 'justice' should be extended to the victimised mother and children of the victimised families. As their rights have been violated and therefore they are entitled to redress. It is an imperative norm of justice that the responsibility of the perpetrators be clearly established and rights of the victims and potential victims be realised to the fullest possible extent.

Prayer:

- We humbly request the honourable authority to direct the concerned department not to file cases of female infanticide under Sec 302 IPC.
- As all the alleged accused are the victims marginalised by their social, economic and cultural condition, we request the State to appoint a Special Defence Counsel for the victims.
- We also request the State to provide compensation to the victims of arbitrary detention.
- We also request the state to identify the blocks with high IMR gender differential and evolve local specific programmes
- Under Panchayat raj Institutions all the panchayats has to constitute health committees, and this committee can be entrusted to take care of the birth and survival rights of the girl children.
- A corpus fund can be created in every panchayat to support the families to rear the girl children and for awareness raising. Like 1870's The panchayat must be held responsible for the death of girl infants and Panchayat will be denied of economic sanction if found with the prevalence of female infanticide

Paper presented by A.Gandimathi, Core-member of CASSA, during the Public Hearing organised by Tamil Nadu State Commission for Women in Chennai on 10th July 2002.

Implementation of Existing Regulations - Obstacles and Bottlenecks

SAHA

Memorandum

Child Sex Ratio *Vs* Implementation of PCPNDT Law In Delhi

The PCPNDT Act to check the use of pre-conception and prenatal diagnostic tests for the sex determination has been in place since 2002 but sex determination and selection has continued unabated State governments including the Delhi government stepped up efforts to enforce the law through formation of appropriate authorities for monitoring implementation of the Act at district as well as state levels.

Despite efforts, something is definitely amiss. The birth registration data made available by MCD recently **shows that the sex ratio at birth in Delhi between January and June 2004 indicates that only 819 girls were born for every 1000 boys. In prosperous and educated *South Delhi* zone a mere 762 girls were born for every 1000 boys. In the *Rohini* part of northwest Delhi the sex ratio at birth is 784 and in *Najafgarh,* a part of southwest Delhi, it is 792.**

These figures are horrifying and very much point towards the need for strengthening the implementation of the Act. The Act requires the registration of all ultrasound machines as well as clinics that provide these services. However, it is evident that registration does not in itself translate into prevention of misuse. As of now 210 genetic counseling centers, 221 genetic laboratories, 458 genetic clinics, 65 ultrasound clinics, 25 mobile clinics, and 44 government facilities have been registered by the state PNDT authority. A total of 73 complaints have been registered in court mainly for non-registration. (*Report submitted by state PNDT authority for the quarter ended on June 2004)*

We appreciate this opportunity to meet with you and to raise a few of our concerns over the continuous decline in the child sex ratio in Delhi, the phenomenon of missing girls in our society, and the poor implementation of the PCPNDT Act in the state. We would like to know the steps being taken by the government to address this issue on an urgent basis, and hereby make a plea to the government to take action on the following concerns:

Concerns on the implementation of the act

- Implementation of PCPNDT law in the priority list of state government and seems and another appendage of health system. We would like to know the threshold limit of the situation to recognize and prioritise action on the issue and not consider it as an appendage to the implementation of other schemes and programmes
- Almost all the cases registered in the court are pending without any results. Even the six cases against the advertisement published about the facility for pre-conception and pre natal sex selection test are pending in the court
- Registration of the clinics providing the Prenatal and Postnatal diagnostic services has not been efficient there are many clinics around especially in East-district which has not been registered under this act
- Regulation is poor; last two quarterly reports to be submitted under the act by state PNDT authority have not been submitted to the central health ministry. Only a single case was filed in 2003-2004 which is also pending.
- Monitoring of the clinical reports from the registered clinics is not done and also these records have not been made available to civil society, though the information should ideally be in the public domain. Needless to say, the practice of sex selection cannot be changed through law alone. However, for civil society to be vigilant and to contribute to the government's efforts, it's important that they are equipped with information. Evidence based advocacy is the need of the hour.
- Policing by doctors on doctors is not working, many complaints are settled within the fraternity and the civil society very often is left clueless.

Immediate Steps need to be taken

1. Every month a monthly report to be made available by the state government on the trends in sex ratio at birth through hospital records and birth registration data to the public
2. Registration of all the clinics providing the Prenatal and Postnatal diagnostic services in the state

3. Speedy trial of the pending cases in the court to ensure efficient and timely delivery of justice
4. List of all ultrasound machines both mobile and others along with the names of the owners and the clinics available in the state should be made public
5. An immediate meeting with all the elected representative of the Delhi to be called under the chairpersonship of the H'ble Chief Minister so that the problem is addressed by each one of them in their area of work
6. To ensure that clinic records and registers and information on court cases is available for public scrutiny and building concrete mechanisms for partnership with civil society organisations/individuals in monitoring and social auditing of the clinics registered under this law
7. Non-medical person to be given the powers of PNDT authority. To ascertain that the Appropriate Authority is a multi-member body. Its work is further strengthened and monitored by the state advisory council that consists of legal as well as social experts

Signed and endorsed:

1) Ms Kumkum Sangari (NMML)
2) Ms. Uma Chakravorty (DU)
3) Dr. Puneet Bedi (APPOLO Hosp.)
4) Dr Mohan Roa (JNU)
5) AIDWA
6) Jagori
7) Sama
8) Deepalaya
9) CWDS
10) Action India
11) CHANGE
12) Datamation
13) HRLN
14) Haq
15) Lawyer's Collective
16) CFAR
17) CSR
18) Joint Women's Programme
19) MRYDO
20) Mobile Creches
21) VHAI
22) Prerna
23) Child Survival India
24) CASP
25) CAFE
26) UNFPA
27) Saheli
28) Zubaan
29) Nirantar
30) Marg
31) Women's Coalition of peace and Development
32) Indian Alliance for Child Rights
33) Ekatra
34) A B Baliga Trust
35) Delhi brotherhood society
36) Ankur

Save the Girl Child

Critical Appraisal of PNDT Act and Suggested Amendments

Context:

Like several other regulative legislations section 16 and 17 of PNDT Act establishes the usual bureaucratic mechanisms for prohibition and regulation. Citizen groups who have been fighting this issue for several years find little or no place within the format of this law. They have a toothless mechanism in this law and it is very easy to defeat the law. Even in a recent case filed by the campaign against the violator in 1999 (Crime No. 927/99, Madurai), The Joint Director of Medical Services, the District-level Appropriate Authority is waiting for procedural directions, till date, from the concerned ministry, is a proof to show the ineffectiveness of the law.

Sec 4(2) : States that the pre-natal diagnostic techniques should be conducted only to detect the abnormalities such as I) chromosomal abnormalities; ii) genetic metabolic diseases; iii) haemoglobinopathies; iv) sex-linked genetic diseases v) congenital abnormalities vi) any other abnormalities or diseases as may be specified by the Central Supervisory Board.

Critique: It is however found from the discussion with the doctors and sonologists, that the pre-natal diagnostic techniques are widely being used to confirm the pregnancy, to monitor the pregnancy, to better medical management and to assess the growth of the fetus.

Sec 4(3): Details the conditions under which the pre-natal diagnostic techniques could be used or conducted on a woman namely i) age of the pregnant woman is above thirty five years; ii) the pregnant woman has undergone two or more spontaneous abortions or fetal loss; iii) the pregnant woman has been exposed to potentially teratogenic agents such as drugs, radiation, infection or chemicals; iv) the pregnant woman has a family history of mental retardation or physical abnormalities such as spasticity or any other genetic disease; v) any other conditions as may be specified by the Central Supervisory Board.

Critique: Normally, almost all pregnant women resorting to institutional deliveries are subjected to ultrasonogram atleast 4 times during her pregnancy, as directed by doctors.

Form D/E/F as mentioned in Rules are not being maintained by Genetic Counselling Centres, Genetic Laboratories and Genetic Clinics

Sec 5(1): Details that informed consent should be obtained from the pregnant woman before conducting pre-natal diagnostic techniques and a copy of which should be given to the pregnant woman.

Critique: In practice, even in the registered Genetic Counselling Centres, Genetic Laboratories, Genetic Clinics, this section is not being followed and many of the Genetic Centres are not maintaining records as specified in Form G of the Rules,.

Sec 5(2) says that no person conducting pre-natal diagnostic procedures shall communicate to the pregnant woman concerned or her relatives the sex of the fetus by words, signs or in any other manner.

Critique: This section should also include the referral doctors.

Sec 18: Talks about the registration of all Genetic Counselling Centres, Genetic Laboratories, Genetic Clinics.

Critique: Though Sec 23(1) penalises the owner of unregistered Genetic Counselling Centres, Genetic Laboratories, Genetic Clinics with imprisonment for a term which may extend to three years and with fine which may extend to ten thousand rupees, the State Appropriate Authority has not filed any single case against the violators for non-registration.

Sec 19(1): Says that the advice of the Advisory Committee should be obtained before granting a certificate of registration to the Genetic Counselling Centres, Genetic Laboratories and Genetic Clinics.

Critique: In practice, this provision is not being followed.

Administrative Amendments:

1. According to Sec15 of the Rules, the intervening period between any two meetings of Advisory Committees should not exceed sixty days.

   But in Tamil Nadu, the State Advisory Committee met only 4 times (3.11.1998, 16.3.1999, 27.4.2000, 15.9.2000), since its constitution on 6.2.1996. It should be made mandatory that the Advisory Committee should meet once in two months.

2. The Advisory Committee should be authorised to inspect the records supposed to be maintained by the Genetic Counselling Centres, Genetic Laboratories, Genetic Clinics, as it is democratic body.

   Government Order can be issued to direct all the pre-natal diagnostic centres to submit a status report, every six months, along with copy of the form D, E and F.

3. It is not realistic to regulate all the various private Genetic Counselling Centres, Genetic Laboratories, Genetic Clinics, that offer pre-natal diagnostic facilities particularly that of ultrasonography. If the purpose of these pre-natal diagnostic techniques are mainly to detect the abnormalities, metabolic disorders or certain congenital malformations, then, considering the negligibility of prevalence of such disorders, malformations, abnormalities, and eligible pregnant mothers, all pre-natal diagnostic services could be restricted in government clinics, to cater to the needs of the people and to make regulation more effective.

   A new legislation to register all the private medical institutions should be enacted.

Legislative Amendments:

1. **The Act does not spell out the proper procedure, to take cognizance of offence.** As a result, there is an unduly delay in filing a case.

   Case Study:

   (A complaint was filed against a medical geneticist in Madurai for violating sec 18 & 22, in March 1999 and as per sec 28(1)(b), a notice of not less than 30 days in the manner prescribed was given to the Appropriate Authority. Repeated reminders were sent. The District Appropriate Authority was requested to consult the Public Prosecutor for necessary action. The Deputy Director (Prosecution) of

Madurai Court read the fact in the case and asked the Appropriate Authority to get the instruction from the District Collector, to file a private complaint against the medical geneticist. The office of District Collector replied that the PNDT Act does not spell about anything about the issue of instruction from the District Collector)

Clear procedure should be laid down to penalise the violators under Sec 23(3), by the appropriate authority.

2. Pre-selection techniques are widely being misused and researches on invention of new pre-selection techniques are being undertaken seriously.

   The definition of pre-natal should be widened to include such pre-selection techniques. Or all the pre-selection techniques should be banned outright. (A Public Interest Litigation was filed in the Supreme Court by Dr Sabu George, CEHAT and MASUM, to draw the attention of the State to the gross misuse of reproductive technologies leading to adverse sex ratio against girls and to widen the definition of the term 'pre-natal' to include 'pre-conceptual'.)

3. Women seeking pre-natal diagnostic techniques should be regarded as innocent in the absolute sense. Punishing a helpless woman would make her more vulnerable to pressures and would leave her with fewer options. It would also discourage courageous woman from coming out to expose guilty doctors and family members.

   The clause of punishment to women undergoing sex determination test should be removed.

4. **Registration of abortion beyond 12 weeks should be universalised, including private hospitals.**
5. **Sex of the fetus for all second trimester abortions to be documented clearly**
6. **Specific cause of termination to be mentioned (Congenital malformations, genetic abnormalities, metabolic disorders)**
7. **To make the PNDT Act meaningful, all the provisions of the Act and Rules should be strictly enforced.**
8. **The definition of ultrasonography should me made more explanatory under Sec 2(i), to include all imagery techniques such as ultrasonogram, Doppler Scan, CT Scan, MRI etc., which are used as pre-natal diagnostic techniques.**

THE ROLE OF THE STATE HEALTH SERVICES-EMERGING ISSUES

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This paper focuses on the role of the state health services in altering the sex ratio in rural Punjab.

The first section briefly looks at the structure of the health services in order to identify the various categories of health personnel involved in delivering the health services. This will also help to exactly identify the proximity and frequency of the contact with the people.

The second section of the paper focuses on the causes and factors that lead the health personnel to propagate elimination of women before birth.

The paper is based on data collected through extensive fieldwork in rural Punjab. The third and the final section of the paper draw conclusions.

I

Introduction

In most populations, the world over, sex ratio[1] is favourable to females. In India, South Asia, West Asia, and Africa the situation is different. In India the overall sex ratio has been favourable to males, and since 1901 the sex ratio has fallen from 972 to 933 in 2001.

The reasons for a sex ratio that is unfavourable to females could be due to a greater undercount of females relative to males, greater emigration of females, more adverse mortality conditions for females than for males and sex ratio at birth becoming more favourable to males than in the past (Premi 1997).

[1] Sex Ratio indicates the ratio of women to men in a given population. The definition of sex ratio used here is the number of females per thousand males. The sex ratio that is lower and unfavorable to women is said to be indicative of a lower status for women

In the initial censuses a lower female count was attributed to an incomplete enumeration particularly in Northern and Northwestern regions of the country. Premi (Premi 1997) points out that differential male and female undercount has narrowed down from 1951, 1971, 1981, and 1991. He indicates that this reason is not substantial enough to explain the imbalance in the sex ratio. In addition, statistics on international migration for India are scarce and are not sufficient to explain the unfavourable sex ratio (Premi 1997).

The paper seeks to pinpoint some of the reasons for the lower number of females as opposed to males. The focus is on the manner in which the implementation of the health services and the prioritisation of the certain health programs particularly the Family Welfare Program have had an impact on the number of girls being born. Since a sex ratio unfavourable to women is attributed to poor health of women (among other things), interventions in the sphere of health are one of the ways through which the government seeks to improve the status of women. The implementation of the health programs is examined at the lowest level of the health hierarchy in the rural areas i.e. the Male and Female Multipurpose Health Workers.

The sex ratio in Punjab is 874 (as per the 2001 census) females per thousand males in Punjab. This is lower than the sex ratio of 882 in 1981 and is lower than the sex ratio of 933 (2001) for the country as a whole. It is one of the most prosperous states of India. In 1996-97 Punjab had a per capita net state domestic product of Rs. 18,1213 at current prices; second only to Goa. Only 12% of the total population of Punjab is below the poverty line. The figure for India is 36%. Agriculture is the single largest sector of the economy with 83.5 % of the total geographical area under cultivation. (NFHS-2, 2001). In addition Punjab is a patriarchal and patrilineal society. An agricultural based economy is indicative of a society with son preference.

Given the predominantly agricultural based economy, the economic prosperity of Punjab, and the patriarchal kinship relationships it is critical to examine the extent to which the implementation of the health programs has imbibed the intent and objective of the health policies particularly in the sphere of equality of both the sexes.

II

Thrust on Targets

An examination of the implementation of the health programs at the village level show that the Family Welfare Program is the main program that gets implemented,

often at the cost of all other programs. The major focus of the health bureaucracy is on the achievement of targets for Family Welfare. Here too the focus is primarily on achievement of targets through sterilization. Sterilization is primarily female sterilization. Male sterilization is very rare. In the pursuit of the targets, the 'Welfare' component of the Program is lost and only the 'Planning' component remains. Thus, it would not be wrong to call the program the Family Planning Program.

In order to take health services beyond the pursuit of targets the Government of India introduced the Target Free Approach (TFA) since 1 April 1996 all over India and under the system of decentralized participatory planning. TFA has been renamed as Community Needs Assessment Approach (CNAA) from 1997. However, adoption of the target free approach has not done away with the importance of meeting targets. Informally targets continue to be of prime importance.

III

The Cultural Frame

The targets have to be met within a cultural framework of patriarchy and economic prosperity. The workers by virtue of being a part of the same patriarchal society have modified and negotiated the rules to fit in with the fertility behaviour and desires of the people. There is a shared understanding of the fact that spacing between children and sterilization is not an option till a family is 'complete' with sons.

It is within then context of this culturally determined fertility behaviour framework that the workers try to meet their targets for family planning and sterilization. Thus there is an attempt to hasten the process of 'family completion'.

They try to hasten this process through many ways. One of the major ways is through pre-birth elimination of the female foetus. The entire health hierarchy is propagating this as a means of planning for sons. Once the family is complete then a case for sterilization is ready and you are one step closer to target attainment.

There has to be a direct attack on son preference as a way out of this maze created by science and technology. There have to be well -developed links between rights of women as a part of culture and with female autonomy.

Initiatives and efforts taken to address women's issues have been inadequate, distorted, vertical, and top- down and have rarely emerged out of concern for women's health. The only solution being offered for women's health is for maternal health. This too is extremely limited and is restricted to distribution of iron and folic acid tablets and to tetanus toxoid injections. Here too only those women who have

been targeted for sterilization by the health workers receive iron supplements to pump up their haemoglobin levels. Poverty, illiteracy, and a rural background further compound the mariginalisation of women. The household factors like its type, gender, and generational control also contribute to her marginalisation.

There is a total lack of a supportive structure to empower women. That can only be achieved through cooperation of different departments working in the rural areas and through the involvement of people themselves. Female autonomy should be the prime focus. Economic empowerment of women can lead to female autonomy. Structural reforms like land ownership can also do the trick. It is only then that the shackles of patriarchy can be broken or modified to suit women too.

It is a case of son preference versus daughter dis-preference. There is not just a son preference but there is also a daughter dis-preference that leads people to take extreme measures like elimination of unwanted female foetuses. Thus what emerges is that science and technology are not external to culture but are very much a part of culture. Science and technology have become a part of the culture in the sense that they are abetting a desire for sons and the lack of desire for daughters.

It is this kind of an understanding of family planning that the entire health hierarchy in Punjab including the health workers identifies with. The doctors and the rest of the health services hierarchy is aware of the fact that in Punjab temporary methods of family planning are not adopted till the desired family composition is achieved. The desire to have sons is something with which the health hierarchy at all levels identifies with. The traditional social structure is manifested in the primary health care delivery system at the hands of the health functionaries.

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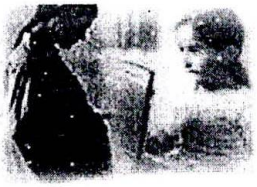
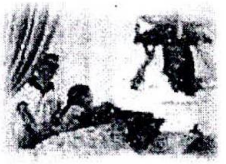


STOP SELECTIVE SEX ABORTIONS
STOP FEMALE FOETICIDE



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'A merely legal approach cannot root out female infanticide

Interview with Salem Collector J. Radhakrishnan

Having set a trend, even if unwittingly, Salem District Collector Dr. J. Radhakrishnan is overwhelmed by the fact that seven baby girls have been handed over to him since December 10. At his camp office in Salem, Radhakrishnan, a veterinary doctor by training, spoke to Asha Krishnakumar about the poor social indicators of the district, the implementation of the cradle baby scheme and the measures undertaken by the district administration to root out female infanticide. Excerpts from interview:

Salem district has the dubious distinction of being one of the worst districts in the country in terms of juvenile sex ratio. It is also the only district in southern India to figure among the worst 50 districts in the country. What are the underlying reasons?
It is really a paradox that Salem, the fifth most prosperous district in Tamil Nadu, with a high infrastructure index (134 compared to the national average of 100), is poor in social indicators. The low juvenile sex ratio is a manifestation of several cultural, social and economic factors. It also reflect the poor status of women and the son preference leading to the doing away with girl babies. This is not a recent happening but a well-entrenched practice that has spread to almost all communities in the area.

How can such a deeply entrenched practice be stopped? Can the cradle baby and girl child protection schemes address the problem adequately?
The cradle baby scheme is effective. Since 1992, 200 girl babies (10 of them between 1996 and 2001) have been saved by the scheme. In the last few months, legal measures have also been used. More than a dozen arrests have been made on charges of killing girl babies and some bodies have also been exhumed. This has instilled some fear among the people. Thus, in less than five months more than 53 babies have been received in the government cradles placed in the PHCs (Public Health Centres).
Since 1992, 2,576 girls have been enrolled in the district under the girl child protection scheme. From January 1, 2002, the eligible age for enrolment in the scheme has been brought down to one year. This will help save more girl babies.
However, it is important to look at the underlying reasons for the scourge. A high infant mortality rate, poor female literacy, extensive higher order births and the dowry system are issues that have to be addressed.

How is your administration dealing with these issues?
The revival of the cradle baby scheme under the 18-point programme of the present government, has given us a major boost. We have, with the support of Danida (Danish International Development Agency), set up a toll-free help line over which suspected infanticide cases can be reported. We have made a few arrests, and also exhumed some bodies, thanks to the help line.
These legal measures have made people turn to the government cradles to leave unwanted girl babies; they no longer kill the babies. And, after December 10, many are handing over their babies to me. Interestingly, all parents ask for a certificate that they have surrendered their babies.
We are also trying to put in place monitoring systems. For instance, we have set up monitoring committees at the district, block and village levels. All the 385 village panchayats now have a monitoring committee comprising the panchayat president, the village administrative officer, the health nurse, a noon-meal scheme worker and a representative from a non-governmental organisation. The committee meets once a month to discuss the problems that work against ending the practice of female infanticide. The committees send the details of the meetings to the Collector.

Various departments such as Health, Family Welfare and Education are being sensitised on the issue. The Health Department, for instance, is geared to monitor all pregnant women and improve the PHCs while the Family Welfare Department is to promote family planning; now only 11.5 per cent of sterilisations and done in government hospitals and PHCs.
Our focus is also on increasing literacy among women. While there are over 1,200 primary schools, there are only 155 middle and 67 secondary schools. Some primary schools are to be upgraded soon.
Simultaneously, a massive awareness campaign against the scourge, with focus on education, is being undertaken. More than 180 of the 385 villages have been covered. Also, it has been decided to talk about the issue at every government function. A massive door-to-door campaign has been planned next month with help from the women's wing of the National Cadet Corps. We are also getting the help of NGOs such as Poonthalir, World Vision, Community Service Trust and VRDP (Village Reconstruction and Development Programme) for the campaign. The Community Services Trust's theatre group has already started its campaign in the villages. We are also in the process of starting a massive anti-dowry campaign.
Foeticide is not rampant in this area, as it is in some other areas in Tamil Nadu. However, we have registered all the 105 scan centres in the district.
The idea is to provide a humane approach; a merely legal approach will not help us get to the root of the problem of female infanticide.

Have these programmes, started five month ago, had any impact?
It is too early to talk of results. But there have been some changes, For instance, the recorded causes of child deaths 'due to social causes' has now come down to 10 per cent from 40 pr cent. Similarly, the number of infant deaths, which was 260 a month until mid-2001, has come down to 150 now. This is only an indication of the improvement. We hope to get better results soon.

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Article in Hindi

CAMPAIGN AGAINST SEX SELECTIVE ABORTION

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State-level Consultation

on

The Role of Appropriate Authorities in Implementing the Pre-natal Diagnostic Techniques Act 1994 and Rules (as amended upto 2002 / 2003)

24th September 2003

POSITION NOTE FOR DISCUSSION

I. Need for the Consultation:

Over the last 50 years, the sex ratio has fallen in our country from 946 women per 1000 men in 1951 to 933 women in 2001. The Juvenile Sex Ratio was 976 in 1961 and fell to 927 in 2001. In Tamil Nadu, the practice of eliminating female children soon after birth in several parts of the state unfortunately still continues despite actions taken by the State and NGO's. This is considered an important factor for the declining child sex ratio. The Juvenile Sex Ratio (0 – 6 years) has been dramatically declining in Tamil Nadu over the last 60 years. The JSR for Tamil Nadu was 995 in 1961 and declined to 948 in 1991 and fell to 939 in 2001. (Census 2001 Data). Sex selective abortion with the invent of sex determination technologies and sex selection technologies are bound to accelerate the downward slide of females along the demographic ladder. According to UNICEF's estimate, nearly 50 lakh female feticide is taking place in India each year. IMA's shocking data reveals that 5 million female fetuses are aborted annually.

According to this data, four of Tamil Nadu's 30 districts report JSRs (rural and total) below 900. Rural JSR are as low as 763 in Salem, 869 in Dharmapuri, 873 in Theni and 882 in Namakkal. Of 201 taluks in the State, 28 taluks from 11 districts report JSR (rural) below 900. Ten of these have JSR below 850–five from Salem, three from Dharmapuri, and one each from Madurai and Vellore. Six of these ten have JSR (rural) below 800.

Infant Mortality Rate (IMR) is the best indicator to understand the incidence and intensity of the practice of female infanticide. The general fact is that infant mortality rate of male is higher than female. On the contrary, if IMR of female is higher than male, then we can conclude that the practice is prevailing. To be

more specific, the analysis of early neo-natal deaths and late neo-natal deaths will reveal the incidence of female infanticide.

The US Department of Commerce has proved that the natural female to male sex ratio at birth is 100:103 – i.e. 971 female children for every 1000 male children, which is a biological sex ratio at birth. Thus a deviation from this ratio will indicate sex selective abortion or female feticide.

The at birth sex ratio obtained from PHCs for the years 2001, 2002 and 2003 reveals that there is a significant increase from 879 per thousand in 2001 to 922 per thousand in 2002 and there is a dramatic decline in 2003 (up to June) to 888. What could be the factors contributing for this dramatic changes?

II. Some Important Provisions of the Prenatal Diagnostic Techniques Act, 1994 *(as amended upto 2002):*

Recognizing the growing use of sex-selective technologies to identify and abort female feotusis the government of India enacted the Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act 1994. Despite limitations it is one measure to address the social injustice inflicted on women by the abuse of medical technologies and unethical practices of doctors. The Tamil Nadu Government is one of the few States attempting to strictly implement the Act and is credited with a maximum registration of 'scan' centres, which is a mandatory requirement under this law. There is a need however to strengthen the enforcing mechanisms by incorporating the directions given by the Supreme Court and the recent 2002 amendments to the Legislation and Rules. Government of Tamil Nadu needs to take measures on an urgent footing to recognise the important indicators as part of the vital statistics and to monitor the incidence and intensity of female infanticide and female feticide. More stringent actions by the Government will contribute to an increased deterrence against the practice of infanticide and foeticide.

The purpose of the Act is to provide for the prohibition of sex selection, before or after conception, and for regulation of pre-natal diagnostic techniques for the purposes of detecting genetic abnormalities or metabolic disorders or chromosomal abnormalities or certain congenital malformations or sex-linked disorders and for the prevention of their misuse for sex determination leading to female feticide.

- The Act which was originally titled as "The Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994" was amended as "The Sex Selection and Pre-Natal Diagnostic Techniques (Prohibition and Regulation) Act 1994".

- Under the new Act, Sex Selection before or after conception is prohibited.

- The newly amended act defines the following terms: embryo, conceptus, fetus, sex selection, sonologist or imaging specialist,
- Genetic Clinic includes vehicle, where ultrasound machine/imaging machine/portable equipment is used which has the potential for detection of sex during pregnancy or selection of sex before conception.
- Genetic Counselling Centre, Genetic Laboratory, Genetic Clinic should employ or take services of any person, on honorary basis or on payment, only those who possess qualifications as prescribed under the Act.
- No person is permitted to render services to non-registered GCC, GL or GC;
- Ultrasound machine or imaging machine or scanner or any other equipment capable of detecting sex of the fetus should not be sold by any person to GCC/GL or to any other person not registered under this Act.
- The conduct of pre-natal diagnostic techniques is permissible if the person qualified is satisfied **for reasons to be recorded in writing** that any of the following conditions exist.
  - age of the pregnant woman is above 35 years
  - she has been exposed to drugs, radiation, infection or chemicals
  - she has undergone two or more spontaneous abortions or fetal lose
  - she has a family history of mental retardation and/or physical deformities
- No one including a relative or husband can compel the pregnant woman to undergo pre-natal sex determination techniques
- No one including a relative or husband of a woman can seek or encourage the conduct of sex selection technique on her or him or both.
- Her written consent should be obtained in the prescribed form in the case of invasive techniques like pre-implantation genetic diagnosis, amniocentesis, chorionic villi biopsy, fetoscopy, fetal skin, organ biopsy, cordocentesis etc.
- She should be explained the side and after effects before administering invasive techniques.
- A copy of the written consent should be given to her.
- The person conducting ultrasonography on a pregnant woman should keep complete record in the prescribed manner.
- The person conducting pre-natal diagnostic procedure should not communicate the sex of the fetus to any one including the pregnant woman or her relatives.
- Central Supervisory Board should meet atleast once in six months
- Constitution of State Supervisory Board/Union Territory Supervisory Board in each State/Union Territory.

Functions of State Supervisory Board:

- To create public awareness against the practice of pre-conception sex selection and pre-natal sex determination
- To review the activities of the Appropriate Authorities in each State
- To monitor and review implementation of the provisions of the Act and Rules
- To send report in respect of various activities under this Act to the CSB and Central Government.

➢ State Supervisory Board is a 21-member body. The Minister of Health and Family Welfare is the Chairperson and Secretary incharge of Department of Health and Family Welfare is the Vice-Chairperson.

➢ It should meet atleast once in four months.

Appropriate Authority:

➢ The Appropriate Authority will be a three-member body. (Director of Medical and Rural Health Services, an eminent woman representing women's organisation, an officer of Law Department)

Functions of Appropriate Authority:

- To grant, suspend, or cancel registration of Genetic Counselling Centre (GCC), Genetic Laboratory (GL) or Genetic Clinic (GC);
- To enforce standards prescribed for GCC, GL or GC;
- To investigate complaints of breach of the provisions of PNDT Act or the rules and take immediate action
- To seek and consider the advice of the Advisory Committee, on application for registration and on complaints for suspension or cancellation of registration.
- To take appropriate legal action against the use of sex selection techniques by any person at any place, brought to its attention or suo moto and also to initiate independent investigations in such matters.
- To create public awareness against the practice of sex selection or pre-natal determination of sex.
- To supervise the implementation of the provision of the Act and Rules.
- To recommend to the CSB and SSB modifications required in the Act or Rules in accordance with changes in technology or social conditions.
- To take action on the recommendations of the Advisory Committee on the complaint received and investigated by the Advisory Committee.

Powers of the Appropriate Authority:

They have powers as are vested in a Civil Court under the Code of Civil Procedure, while trying a suit in respect of the following matters:

- The summoning and enforcing attendance of any person and examining him on oath or on solemn affirmation
- The discovery and production of any document or material object producable as evidence;
- The reception of evidence on affidavits;
- Issuing of any commission for the examination of any witness;
- Issuing search warrant for any place suspected to be indulging in sex selection techniques or pre-natal sex determination

- Advertisement in any form about the availability of facilities such as sex selection and sex determination is banned under the Act. Internet is also included as a medium of advertisement in addition to other forms of means of communication such as electronic, print format, hoarding, wall painting, signal, light, sound, smoke or gas.
- Any person publishing and / or issuing advertisement relating to pre-conception and prenatal determination of sex is liable to punishment which may extend to 3 years and with fine which may extend to Rs.10000/-.
- Any medical professional who contravene any of the provisions of the Act is punishable with imprisonment for a term which may extend to three years and with fine which may extend to Rs.10000/- an on any subsequent conviction, with imprisonment which may extend to five years and with fine which may extend to Rs.50000/-.
- The Appropriate Authority should communicate to the Medical Council of India, the name of the medical practitioner who contravened the provisions of the PNDT Act, to suspend the registration till the disposal of the complaint, if the charges are framed, and for removal of his name for a period of five years for the first offence and permanently for the subsequent offence, if convicted.
- Any person seeking the aid of GCC, GL or GC for sex selection or for conducting pre-natal diagnostic techniques for purpose other than specified in the Act is punishable with three years imprisonment and Rs.50000 as fine for first offence and five years imprisonment and Rs.100000 as fine for subsequent offence.

- Pregnant women are exempted from punishment unless proved otherwise.

III. Significant Changes in Prenatal Diagnostic Techniques Rules:

- The provider of ultrasound machines/imaging machines or any other equipment capable of detecting sex of the fetus should send once in three months a list of those to whom the machine/equipment has been provided, to the State Appropriate Authority.
- The person / centre who is buying any such machine or equipment or any other equipment capable of detecting sex of the fetus should file an affidavit that the machines shall not be used to detect the sex of the fetus or selection of sex before or after conception, to the provider of the machine and to the Appropriate Authority.
- The person / centre who is buying any such machine or equipment or any other equipment capable of detecting sex of the fetus should display prominently a notice that they do not conduct any technique to detect sex or selection of sex of the fetus before or after conception.
- The provider of such equipments should sell them to the person/centre registered under PCPNDT Act.
- The registration fee has been revised.
- Form of Consent (Form G) is now made applicable only to invasive techniques.
- Self-referral to ultrasound clinic/imaging centre/genetic clinic is permitted.
- The Central Supervisory Board has laid down a representative list of indications for ultrasound during pregnancies.

IV. Some steps taken by Government of Tamil Nadu to enforce PNDT Act 1994, *(as amended upto 2002).*

- Pre-Natal Diagnostic Techniques (Regulation & Prevention of Misuse) Act 1994 of Government of India was published by a Gazette Notification on 20th September 1994.

- The Act came into force in Tamil Nadu with effect from 01.01.1996 by a Gazette Notification published on 21.12.1995.

- A press Notification was published calling for registration under the Act by those practicing pre-natal diagnostic techniques (ultrasound) who are engaged in Genetic Counselling / Genetic Clinics / Genetic Laboratories and other related activities. However it did not evoke much response.

- In order to enforce the Act more effectively the Government of Tamil Nadu constituted a State Advisory Committee by a Government Order vide G.O.MS No.66 Health dated 06.02.1996.

- This was also notified in the Government Gazette. In G.O. Ms. No.431, Health dated 31.07.1996 the State Government also ordered the constitution of District Advisory Committee.

- At the State level the Director of Medical and Rural Health Services has been nominated as the Appropriate Authority to implement the Act. At District level the Joint Director of Health Services of the district concerned has been nominated as Appropriate Authority with members.

- In G.O.Ms.No.431, Health dt.31.7.98, the Government has issued orders constituting District Appropriate Authority and District Advisory Committees to advice on implementation of Pre-Natal Diagnostic Techniques (Regulation & Prevention of Misuse) Act 1994.

- The Joint Director of Health Services of the Districts who are the Appropriate Authority and convenors of the Advisory Committees were instructed to convene the meeting of the Advisory Committees and to take suitable action for implementation of the Act.

- In a recent press release, the Government have also warned Doctors who are found indulging in malpractice's regarding sex determination that they remain liable to lose their registration for Medical practice.

- The Government of Tamil Nadu has also issued warnings that offences under the Act such as non-registration and misusing diagnostic techniques and technology to disclose the sex of the foetus are punishable as cognizable, non-bailable and non-compoundable offences punishable upto 3 years of imprisonment and fine upto Rs.50,000/-. These equipment's (Scan) are strictly to be used for diagnostic purpose only for the exceptions under the Act.

- In G.O.Ms.No.298 of Health and Family Welfare (R1) Department, dated 31.10.2001, the Government have issued orders constituting Taluk Appropriate Authority and Taluk Advisory Committees to advice on implementation of the Act.

- In G.O.Ms.No.4 of Health and Family Welfare Department, Chennai dated 13.1.2003, the Government have issued orders reconstituting State-level Advisory Committee.

- The Appropriate Authority took active measures to register the scan centres by issuing special advertisements periodically.
- The Appropriate Authorities organised awareness programmes through electronic and print media and issued stickers regarding the prohibitory clauses of the Act.
- The Appropriate Authority has reopened the file of Dr Chandrasekar, violator under Sec 22 (1).
- From information available the total number of 'Scan' Centres (genetic clinics / laboratories / counselling centres) registered so far is 2034. Due to constant vigil, 79 unregistered Scan Centres have been seized and sealed. Cases have been filed against 21 Scan Centres and Judgments delivered for 16 cases convicting the offenders with fine.

A few more significant changes in the Act and Rules

- The Pre-conception and Pre-natal Diagnostic Techniques (Prohibition of Sex Selection) Act 1994, despite all its limitation is one weapon to address the social injustice inflicted on women by the abuse of medical technologies.
- The incorporation of a representative list of indication for ultrasound during pregnancy in the Rules itself is a recent legal development which will only legitimise the legal practice and technology that is engaged in this human rights violation.
- Prohibition of pre-conception sex selection is a useful amendment in the context of mushrooming of fertility clinics.
- The inclusion of accountability of manufacturing companies to the Appropriate Authority regarding pre-natal diagnostic technologies and sex selection techniques is an important strategy to address the issue of female feticide.
- Powers of a Civil Court given to the Appropriate Authorities and clear procedures are important steps in strengthening the enforcement mechanisms.
- The inclusion of referral doctors as part of GCC is an important amendment.
- The new amendment to reconstitute the Appropriate Authority as a three-member body, constitution of State Supervisory Board and decentralisation of Appropriate Authority at taluk level are important provisions.
- The constitution and functions of Advisory Committees is a step forward so that issuance of registration and cancellation of clinics can be monitored strictly.

V. Non-action against the prohibitory clauses on advertisement and technologies:

Bharat Scans issued an advertisement dated 7th April in 'The Hindu' and 'Business Line' with regard to 4D Real Time Ultrasound Scanner, advertising this technology as a 'window to the womb' and providing 'informed choice'. These advertisements are in violation of Sec 22(1), 22(2) and 6(a) of PNDT Act. Inspite of repeated memorandums from CASSA, requesting the Appropriate Authority to initiate legal proceedings against Bharat scans for such an advertisement and also against The Hindu, Business Line for publishing such advertisement, no action legal or otherwise was initiated. There is also an advertisement in website and in "Outlook" on the sale of 'Genselect', a bill and douch kit from US firm, which claims to help couples choose the sex of the child before conception. As this advertisement is violation of Sec 22(1), 22(2) of PCPNDT Act, CASSA submitted memorandums to the Appropriate Authority to take legal action against the violators. Again no action was taken. Why is that no action was not instituted against the violators by the Appropriate Authority inspite of the repeated memorandums submitted by CASSA and its members?

VI. Main Highlights of the Interim Orders passed by Supreme Court in case 301/2000:

Summary of the First Interim Order of Supreme Court passed on 4th May 2001:

Directions to the Central Government:

- The Central Government is directed to create public awareness against the practice of pre-natal determination of sex and female feticide through electronic media.
- The Central Government is directed to implement with all vigor and zeal the PNDT Act and the Rules framed in 1996.
- It ordered that the intervening period between two meetings of the Advisory Committees should not exceed 60 days.

Directions to State Government / Union Territory Administrations:

- Constitution of Appropriate Authority at the district and sub-district levels and also appointment of Advisory Committees to aid and advise the Appropriate Authority in discharge of its functions.
- Create public awareness against the practice of pre-natal determination of sex and female feticide through advertisement in the print and electronic media.
- Submit report on the implementation and working of the Act once in three months to the Central Supervisory Board.

Directions to Central Supervisory Board:

- The CSB shall issue directions to all State / UT Appropriate Authorities to furnish quarterly return to CSB, giving a report on the implementation and working of the Act.
- The CSB shall examine the necessary to amend the Act, keeping in mind emerging technologies and difficulties encountered in implementation of the Act..
- CSB should take efforts to create awareness about the practice of pre-natal determination test and female feticide and ensure the implementation of the Act.

Directions to Appropriate Authorities

- Take action against non-registered bodies and against those who issued any advertisement in violation of sec.22.
- Take action against all bodies and persons without a valid certificate of registration.

Summary of the Second Interim Order passed on 19.09.2001:

- Supreme Court directed the Appropriate Authority to file complaints under Section 28 of the Act for prosecuting offenders.
- The Appropriate Authorities are directed to search, seize documents, records, objects, ect., of unregistered bodies under Section 30 of the Act.
- It directed all the State Governments / Union Territories to implement the Act and submit the compliance report (Quarterly return) as directed by the order dated 4th May, 2001 as well as this order within six weeks from today.
- The Supreme Court directed the concerned authority in the State of Tamil Nadu to provide an appropriate form for getting registration to the clinics having ultrasound machines and the Honourable Supreme Court of India has further directed that if they are complying with the necessary rules and regulations, the authority shall grant registration immediately.

Summary of the Third Interim Order Passed on 7.11.2001:

Supreme Court will wait for a period of three weeks from 7.11.2001 for the constitution of National Inspection and Monitoring Committee by the CSB for the implementation of the Act.

Summary of the Fourth Interim Order Passed on 11.12.2001:

Supreme Court directed the manufacturing companies of ultrasonogram to supply information as to how many machines they have sold to various clinics within the last five years including their names and addresses and also service contract to those clinics or individual as the case may be.

1. Uma Parameshwaran, CEO, Wipro Ge Medical Systems Ltd. - 1, Corporate A Towers, Golden Enclave, Airport Road, Bangalore – 560017.
2. Toshbro Shimandzu Ltd. Khetan Bhawan, 2nd floor, Mumbai – 400020.
3. Erbia Engineering Co.Ltd., 2E/12, 4th Jhandewalan Extn., New Delhi – 110005.
4. V. Prabhakar, CEO, ATL India Ltd., 79 & 94, Developed Plota, Perungadi, Chennai – 600090.
5. Lareen & Toubro Ltd. (Medical Equipment Divn.) L&T House, 10, Club House Road, Anna Salai, Post Bag No. 55247, Chennai – 600002.
6. International Medical Services Pvt.Ltd., 17 Industrial Estate, Maruti Comples, Gurgaon- 122015.
7. A.K. Khosla. Chairman, General Electric Co. of India Ltd., E-16, Greater Kailash, Part – 1, New Delhi – 110048.
8. Rajeev Dayal, President & CEO, HCL Picker Ltd., D-3, Community Centre, Poorvi Marg, Vasant Vihar, New Delhi – 110057.
9. Siemens Ltd., Mahape Workshop Shilphata Road, Behind MIDC Area Off Thane Balapur Road. vill. Mahape, Thane – 400601.

The Supreme Court also directed the Central Government to frames appropriate rules with regard to sale of ultrasound machines to various clinics and issue directions not to sell machines to unregistered clinics.

Summary of the Fifth Interim Order passed on 29.01.2002:

The Appropriate Authorities are directed to follow the mandatory procedure prescribed under Sec 19 of the Act before granting certificate of registration to any person or organisation using the said machines / scanners.
It has suggested that the Union of India / concerned authorities can obtain information about the user of the ultrasound machines / scanners from the following Associations:

1. Indian Medical Association
2. Indian Radiologists Association
3. Federation of Obstetrics And Gynaecologists Society Of India (Fogsi)

Summary of the Sixth Interim Order passed on 05.03.2002:

The Supreme Court directed all the Health Secretaries of Bihar, Delhi, Gujarat, Kerala, Jarkand, Orissa, Uttar Pradesh, Pondicherry and West Bengal to appear in person on 9th April 2002, to report on the status of registration against the data given by the manufacturing companies.

Summary of the Seventh Interim Order passed on 09.04.2002:

The Supreme Court has directed the State / UTs to take necessary actions against the person who had not registered their ultrasound machines under PNDT Act.

Summary of the Eighth Interim Order passed on 30.04.2002:

Supreme Court directed the concerned officers to seize and seal the machines of the unregistered clinics within four weeks from 30.4.2002 and file necessary affidavits indicating status of further actions taken and the information gathered so far on or before 5th August 2002.

Summary of the Nineth Interim Order passed on 07.05.2002:

The Supreme Court of India directed that concerned officers to take further steps for finding out unregistered clinics. If such unregistered clinics are found to be operating in any part of the State, the concerned offices are directed to seize and seal the said machines, and they are also directed not to permit them to operate. All the States are directed to file necessary affidavit on or before 5th August, 2002.

Summary of the Tenth Interim Order passed on 18.10.2002:

The Supreme Court has issued directions to the Centre, all States and UT to file a status report regarding the implementation of various order passed by the Apex Court since May 2001. It has granted 6 weeks to file the response.

VII. Experience in Other States:

As the former Appropriate Authority of Karnataka was also the Chairperson of State Commission for Women, she had the civic powers to send summons to the violators, to call for enquiry, ask for evidences and can inspect, raid, seize the documents and hence monitoring the implementation of the Act was more effective. Moreover, the Appropriate Authority independently, on a suo motu basis took action against the violators. The Appropriate Authority tried test cases and took action against the violators if the evidences are relevant to the provisions.

In Punjab, Dr Dahia was transferred from Faridabad to Chandigarh because he was taking appropriate action against defaulting clinics. The newspaper reports place lot of evidences. In the view of Supreme Court, if efficient officer is transferred only because he was taking action against the defaulting clinics, then certainly the action of the State Government is an unjustified one. The Supreme Court ordered the State of Haryana through its Health Secretary to file necessary affidavit stating reasons for transfer of Dr Dahia.

During the Southern States Consultation held in Bangalore, in the month of April 2002, hosted by the Appropriate Authority of Karnataka and organised by Central Supervisory Board, the following observations were made:

- The scan centres with the military hospitals and railway hospitals could not be registered as there is an administrative jurisdiction between the State and the Centre.
- The Appropriate Authority had technical difficulties in maintaining the seized machines.
- There is no effective monitoring mechanism for MTP Act.
- The referral doctors are not included within the ambit of the Act.
- The linkage between the sonologist and the gynecologist is not legally recognised by the PNDT Act.

VIII. Medical Termination of Pregnancy Act, 1971:

It is important to mention that the PNDT Act has an important link with the Medical Termination of Pregnancy Act, 1971 and Rules 2003.

Highlights of the Amendments:

District Level Committee consisting not less than three and not more than five members will be constituted to approve the place for termination of pregnancy.

- The termination of pregnancy by a person who is not a registered medical practitioner shall be an offence punishable with rigorous imprisonment for a term, which shall not be less than two years, which may extend to seven years.

- Whoever terminates any pregnancy in a place other than the approved place shall be punishable with rigorous punishment for a term, which shall be less than two years but which may extend to 7 years.
- The owner of a place, which is not approved, shall be punishable with rigorous imprisonment for a term, which shall not be less than 2 years but which may extend to 7 years.

Steps to be taken under MTP to strengthen PNDT Act:

- All the records under MTP Act should be duly maintained.
- The recording of the gender of the fetus aborted during second and third trimester should be made compulsory.
- Action against persons other than medical practitioners indulging in termination of pregnancy must be punished.
- The Government must review the legalisation of medical termination of pill, as there is wider scope for misuse to eliminate female fetuses.
- The Joint Director of Health Services should display prominently, the list of medical practitioners and hospitals registered under MTP Act, in all PHCs.

IX. Ethical Issues:

In India, inspite the abortions are legal, it is said that 20000 deaths per year take place as result of abortions alone in India and 100 fold have long term morbidity. According to ICMR, risk of maternal mortality is more than 10 fold even if they are done by experts in Government Institutes i.e. 26/100000 first trimester abortions, 322/100000 second trimester abortions. In addition to that, repeated abortions may result in sepsis, shock, haemorrhage, anuria or oliguria, infertility, chronic pelvic inflammation etc. (Family Medicine)

Dr Saradha Jain, Secretary of National IMA, warns that the risk of maternal morbidity and maternal mortality need to be given much attention as an issue of negation of women's right to better health. Studies indicate that risk of death is 7 – 10 times higher for women who wait until the 2nd trimester to terminate the pregnancy. Sex Selective Abortions are all second trimester abortions.

According to Dr Vinay Agarwal, (Former Joint Secretary, National IMA), the frightening fact is that in places where advanced technology is not available for determining the sex of the fetus in the early week after conception, people turn to scanning where sex is identified by the 6th or 7th month of the pregnancy and then if the fetus is a female, they undertake abortion even beyond 20 weeks which at times may even require a cesarean sections

From the above paragraphs, it seems true that the sex determination and sex selective abortions are continuing, as doctors continue to violate the PCPNDT Act and MTP Act. In these circumstances **what Joint Directors of Health Services under PCPNDT Act and Appropriate Authority under MTP Act can do to contain these unethical practices.**

Technological Interventions in Pregnancies: The prevalent gynaecological practice necessitates the use of ultrasound even to confirm the pregnancy and there are three to five ultrasound scans indicated in all the three trimesters. Clinical diagnosis is rarely practiced and the continuing of the very pregnancy is monitored by technologies. This unwarranted access to the technologies for normal pregnancies leads to the misuse of the technologies

Commission for referrers – The corrupt practices such as commission from the GC and GL to the referral doctors is not only an ethical issue. It also corrupts the doctors and other para medical persons who are dealing with the patients.

Accountability and Transparency to the patients and to the society – As the same Joint Director of Health Services is responsible for the implementation of MTP Act and PCPNDT Act, she/he can take independent initiative to monitor both public and private hospitals for the occurrence of second trimester abortions. If more number of pregnant women are undergone second trimester abortions, she/he can initiate an interrogation process on the respective hospitals or institutions.

X. Reforms / Measures in Enforcing the PNDT Act:

Budget Allocation–As many of the GCC/GC/GL/Imaging Centre/Ultrasound Clinic are not aware of the latest amendments and supreme court directions, the State Government should take necessary steps to allocate more funds to strengthen the monitoring mechanism and for wide propaganda to issue periodical advertisements and various directions regarding the latest amendments and Supreme Court Directions. The corporate sector must be made to sponsor advertisements for this public cause on Television, Radio and in the print media.

Notification and enforcement of the Private Nursing Homes (Hospitals) Act which was passed by the Legislative Assembly. This is very necessary for making Private Hospitals accountable to Public Monitoring and make mandatory for private hospitals to furnish all records for government and public scrutiny.

Awareness programmes–Government of Tamil Nadu / Appropriate Authority must organise / support more awareness programmes on the Act / Rules and ethics of not practicing feoticide this must be done in all villages and towns involving local-government representatives and ngo's.

Registration of GCC/GC/GL/Ultrasound Clinic/Imaging Centre under each category–In order to enhance the monitoring functions of civil bodies like CASSA, it is suggested that the Appropriate Authority brings public documents which explains the classification of registration of GCC/GC/GL/Ultrasound Clinic/Imaging Centre, on a periodical basis.

Monitoring the sales of machines by companies–The Appropriate Authority should strictly monitor the sale of pre-natal diagnostic techniques, sale of

pre-conception sex selection techniques by the manufacturing companies to the registered and unregistered clinics this information should be made public in two important newspaper dailies.

Constitution of State Supervisory Board, Appropriate Authorities at different levels and Advisory committees–In order to strengthen the enforcement mechanisms, the newly amended Act suggested to constitute State Supervisory Board, Appropriate Authorities and Advisory committees at State, District and taluk levels. These enforcement mechanisms are not constituted at the fullest extent, The Government of Tamil Nadu should expedite the process.

Meetings of Board / Appropriate Authority / Advisory Committee – As per the provisions of the Act and Rules and as per the directions of the Supreme Court, the enforcement authorities will be directed to convene periodical meetings, to strengthen the monitoring process.

Suo motu investigation against violations such as advertisement on sex determination and sex selection, non-maintenance and disclosure of records, sex determination through oral communication, disclosure of sex, records of abortions sex-wise, etc., will strengthen the implementation of the Act. . In the newly amended Act, suo motu action against the violation is clearly warranted. The Appropriate Authorities, following the model of Karnataka State should take independent initiative to take action against violators. Steps should be taken to ban advertisement regarding sex selection in other forms of medicine.

Need for deadline in registering the centre–The Appropriate Authority should immediately finalise the deadline for registration of all 'Scan' centres (Genetic clinics / laboratories / counselling centres) and take immediate action against the defaulters (non-registration) for the non-compliance of the provisions of the Act.

Legal Action taken against the violators – The Appropriate Authority through MCI should periodically publish the data on the status of various action taken by the Appropriate Authority against the violators.

Role of Advisory Committee in registration – We suggest that the Advisory Committee can be consulted while issuing registration and cancellation of the GCC/GC/GL/Ultrasound Clinic/Imaging Centre.

Functioning of Advisory Committee: Immediate action should be taken for the constitution and regular functioning of advisory committees at district and taluk levels. There is no representation for Social Workers though the Act clearly spells about inclusion of social workers and representatives of women's organisation in Advisory Committee..

Maintenance of records - The Appropriate Authority will be directed to ensure the maintenance of records by GCC/ GL /GC/ ultrasound clinic and imaging centre as per the rules of the PNDT Act.

Registration of all referral hospital / institute / nursing homes to GC, GL, Ultrasound Clinic / Imaging Centre as GCC must be ensured by the department, as per the definition of Genetic Counselling Centre.

Union and State Government, Census of India and other statutory bodies responsible for periodical data collection and recording should be persuated to include Sex Ratio at Birth as one of the health indicators.

Stricter enforcement of the Medical Termination of Pregnancy Act (MTP Act & Rules).

XI. Need for reviewing the pre-natal diagnostic and pre-conception sex selection technologies:

In a son-preference society, it is suggested that any newly introduced technique or technology should be reviewed by the expert committee constituted by the parliament and must be permitted only after assessing the pros and cons of the applications of these technologies on the rights of the girl child. The Central Supervisory Board constituted under PCPNDT Act should instruct all the manufacturing companies to apply to the Central Supervisory Board before selling the same to the consumer.

Recommended Amendments in PCPNDT Act:

- There should be a direct penalty clause for disclosure of sex by the medical practitioner and his/her agents.
- There should be a direct penalty clause for non-maintenance of records
- The referral medical geneticists who are referring the pregnant woman for undergoing ultrasound scan/pre-natal diagnostic test/pre-natal diagnostic procedure should maintain records comprising the details of the pregnant women, reasons for such test/procedures and details of imaging specialists.
- The Chairperson of State Women Commission and the Director of Prosecution of State should be included as members in the State Supervisory Board
- The sex of the fetus should not be revealed to the referral doctors too and this should be explicitly stated in sec 5 (2).
- The Appropriate Authority is allowed to tale legal action against the use of any sex selection technique by any person at any place, suo motu or brought to its notice and also to initiate independent investigations in such matter. The Appropriate Authority should have similar function in case of sex determination.

Recommended Amendment in Rules:

- There is no common reporting format for the equipment providers and GCC/GL/GC/ Ultrasound Clinic/ Imaging Centre

Steps to be taken to Implement the PNDT Act and Rules in Tamil Nadu

- Public awareness against the practice of pre-natal determination of sex and female feticide through print and electronic media.

- Conducting Advisory Committee Meetings every two months

- Constitution of Advisory Committees at the District level to aid and advise the Appropriate Authority in discharge of its functions. Scan owners not a member.

- Create public awareness against the practice of pre-natal determination of sex and female feticide through advertisement in the print and electronic media.

- Submit report on the implementation and working of the Act once in three months to the Central Supervisory Board.

From State-level Consultation on the Role of Appropriate Authorities in Implementing the PNDT Act 1994 + Rules. 24.9.03

- Take action against non-registered bodies and against those who issued any advertisement in violation of sec.22.

- Registration at District Level S.C. 2001

- Take action against all bodies and persons without a valid certificate of registration.

- Appropriate Authority to file complaints under Section 28 of the Act for prosecuting offenders.

- The Appropriate Authorities are directed to search, seize documents, records, objects, etc., of unregistered bodies under Section 30 of the Act – team.

- Submit the compliance report (Quarterly return) as directed by the Supreme Court order dated 4th May, 2001.

- Frame appropriate rules with regard to sale of ultrasound machines to various clinics and issue directions not to sell machines to unregistered clinics. Appropriate Authorities can obtain information about the user of the ultrasound machines / scanners from the following Associations:

(1) Indian Medical Association, (2) Indian Radiologists Association, (3) Federation of Obstetrics And Gynaecologists Society Of India (Fogsi)

- The Appropriate Authorities are directed to follow the mandatory procedure prescribed under Sec 19 of the Act before granting certificate of registration to any person or organisation using the said machines / scanners.

- Appropriate Authorities to seize and seal the machines of the unregistered clinics within four weeks.

- Appropriate Authorities take further steps for finding out unregistered clinics - seize and seal the said machines and not to permit them to operate.

- The Supreme Court has issued directions to the Centre, all States and UT to file a status report regarding the implementation of various order passed by the Apex Court since May 2001. It has granted 6 weeks to file the response. Publish Report for 2002 – Minutes of Advisory Board.

- Constitute the S. Supervisory Board and Multi Member Appropriate Authority at State Level – 3 months of February 4th 2003.

- Nominate a women / 3 eminent social worker /activists/social worker

Measures in Enforcing the PNDT Act:

- Increased Budgetary Allocations - PNDT

- Notification and enforcement of the Private Hospitals Act

- Clinical Establishment – Notified / Rules sent to Government

- Registration of GCC/GC/GL/Ultrasound Clinic/Imaging Centre under each category

- Monitoring the sales of machines by companies

- Constitution of State Supervisory Board, Appropriate Authorities at different levels and Advisory committees

- Suo motu investigation against violations such as advertisement on sex determination and sex

selection, non-maintenance and disclosure of records, sex determination through oral communication, disclosure of sex, records of abortions sex-wise, etc

- Need for deadline in registering Scan Centres - finalise the deadline - take immediate action against the defaulters

- Joint meeting of JD + Magistrates and format for reporting : Public prosecutors / police take action immediately on mobile SCANS not registered.

- Legal Action taken against the violators – The Appropriate Authority through MCI should periodically publish the data on the status of various action taken by the Appropriate Authority against the violators - <u>How is the prosecution proceeding in cases filed.</u>

- Role of Advisory Committee in registration – We suggest that the Advisory Committee can be consulted while issuing registration and cancellation of the GCC/GC/GL/Ultrasound Clinic/Imaging Centre.

- <u>List of Registered Centres / Family Welfare Department</u>

- Display of doctors at PHC

- Action against Campaigns for sale of machines to unregistered.

- Functioning and Composition of Advisory Committee's – inclusion of social workers and representatives of women's organisation

- Medical students curriculum – introduction

- Maintenance of records - The Appropriate Authority will be directed to ensure the maintenance of records by GCC/ GL /GC/ ultrasound clinic and imaging centre as per the rules of the PNDT Act.

- Awareness – Sonologists / Radiologists.

- Registration of all referral hospital / institute / nursing homes to GC, GL, Ultrasound Clinic / Imaging Centre as GCC must be ensured by the department, as per the definition of Genetic Counselling Centre.

- What is – Genetic Counselling – Chromosome abnormation

- Sensitise the judicial system on the law – public prosecutors also – judicial academy

- District Advisory Authority Composition G.O.

A Critical Analysis of Tamil Nadu Government Cradle Baby Scheme

Backdrop:

The extreme form of gender violence, in the form of female infanticide is deeply entrenched in the patriarchal structure of the society. The practice has the social acceptance and has therefore been legitimised. It is difficult to deal such socially consensual behaviour. Though the practice of elimination of female children soon after birth is prevalent in many States in India, Tamil Nadu was the first state, which acknowledged the existence of female infanticide.

In 1992, the 'National Plan of Action' for children was framed, which includes the objective of removing gender bias in improving the status of child in society so as to provide her with equal opportunities for her survival and development. Various schemes have been formulated by different States to protect the girl child from gender discrimination. These schemes include both long term and short term measures.

The Tamil Nadu Government has introduced two schemes to tackle the problem of female infanticide. The first was the 'Cradle Baby Scheme', which was started in the year 1992. This scheme was formed as a short term measure, to address the heinous practice of female infanticide. The scheme involves, placing cradles for the unwanted girl child at all the primary health centres, Hospitals, Orphanages and Children's Homes to offer shelter and upkeep for the baby girls who have been abandoned by their parents due to various social circumstances. The scheme was under the administration of Social Welfare Department. A Reception Centre was started in Salem in 1992. The primary objective of the Reception Centre is to rescue the girl child and look after her with due care and affection till she is handed over to an adoption agency/orphanage. It is necessary to critically review this 'Cradle Baby Scheme' in terms of both its content and implementation, to understand the effectiveness and relevancy to address the issue.

Status of Cradle Children:

As many as 136 babies were abandoned in Government cradles between 1992 and 1996 during the AIADMK Government. Of these, 47 have been given for in-country adoption, 12 children were taken back by their parents, 40 children are brought up in 8 Voluntary Institutions, 39 children died in the early stages itself due to diseases.

The then DMK Government derailed the scheme subsequently. Yet, during this period, the abandoned children were rescued and given for adoption by the adoption agencies. The number of children received during this period 14,7,1997 to13.5.2001 were 10 of which one parent had taken the baby back. The present Tamil Nadu Government revived the Cradle Baby Scheme at a total cost of Rs 12.96 lakhs, vide its GO Ms No.158 dated 24.10.2001. The Government accorded sanction for starting four Reception Centres, one each at Madurai, Theni, Dindigul and Dharmapuri, and also for starting of 188 Cradle Points in all the Primary Health Centres/Selected Additional Primary Health Centres and in the office of the District Social Welfare Officers in the following districts viz. Madurai, Theni, Dharmapuri, Namakkal and Erode. Cradle Baby Scheme was started in Usilampatti on 28th July 2001 and 6 Cradle Points were set up. After the announcement of 2002 Budget, 30 more Cradle Points were set up. Cradle baby scheme was launched April 14, 2002 in Dharmapuri, set up cradles in 40 places.

Districts	No. Of babies surrendered	Abandoned	Total	No. Of Children died	Children taken back by parents	Adoption/ foster care
Madurai	22	31	53	5	2	24
Theni	4	0	4	-	-	Not available
Salem (1997-2001)	Not available	Not available	10	1	1	9
Salem (since 13.5.2001)	1		120	Not available	9	Not availabel
Dharmapuri	Not available	Not available	41(F) 7 (M)	0	0	Not available
Dindigul	0	0	0	-	-	-
Namakkal	Not available	Not available	before 1.4.2002 14 female babies. After 1.4.2002 11 babies (3M+8F)			

The reception centre in DSWO, Madurai has not been functioning, the children received in the cradle points are sent to the two adoption agencies in Madurai. These two agencies submit report about the status of the cradle children every month. The DSWO also visits these centres and monitor the implementation of the scheme.

The present procedure is that if the DSWOs have not equipped to receive female babies and act as reception centres, the female babies are received/rescued at the Cradle Points and then handed over to the adoption centres and the information was communicated to the DSWO. The adoption agencies also do have powers to directly receive/rescue female babies. If DSWO acts as reception centre, the female babies received/rescued will be handed over to the reception centre and the reception centre in turn will hand over the babies to the adoption agency. There are 19 licensed agencies to take up in-country adoption. These agencies are functioning in Chennai, Coimbatore, Trichy, Thoothukudi, Madurai, Hosur, Dindigul, Salem, Nagapattinam and Thirunelveli. 8 agencies out of 19 are recognised to do intercountry adoption .

Issues and Concerns:

The Executive of the State and the Districts are formally inviting the parents to abandon their unwanted, newly born girl infants. Under this scheme, a father is permitted to abandon the second girl child of his third wife; another family is permitted to abandon their 7 year old girl child; any parent can leave the girl child of any age if they decide to abandon their girl children.

Though the State claims itself as the ultimate custodian of any abandoned children, it legitimises the abandonment of girl child alone, which itself proves the patriarchal construction of the State. Instead of addressing the long-term issues of eliminating gender discriminatory values and gender division of labour, it is simply permitting the parents to abandon their girl children. The wider issues never draw the attention of the State.

The issue before us is to see whether this intervention really addresses the issue before us - protecting the rights of the girl children.

Perspectives drawn from international and national instruments to review the scheme:

Convention on the Rights of the Child is the major international instrument to protect the rights of the children. The Convention reiterates and elaborates principles enshrined in the Constitution of India. By ratifying the Convention, the Government and the people of India have renewed their commitment to children. It is an accepted fact that the balanced development of a child – emotional, physical and intellectual, can be best ensured within the family, or where this is not possible, then in familial surroundings. The preamble of the Convention clearly states that the family is the fundamental pillar of society and the natural environment for the growth and well being of all its members, particularly children. It is the major source of development of children, by way of providing nurturance, emotional bonding and socialisation.

CRC Provisions:

According to Article 7 of the Convention, the child has the right to be cared for by her biological parents.

Art 9 enjoins upon the State to ensure that children shall not be separated from his or her parents and in case of separation from one or both the parents, the State should respect the rights of the child to maintain personal relationship with both parents.

Art 18 mentions that both parents have the primary responsibility for the upbringing and development of the child. For the purpose of guaranteeing and promoting the rights set forth in the present Convention, States should render appropriate assistance to parents in the performance of their child-rearing responsibilities.

Violation of CRC Provisions:

India, being a signatory to this convention, should follow the principles and provisions of CRC. For many reasons, parents feel that they cannot bring up their own newborn female babies and want to abandon them. But parents have the primary responsibility to upbring their children. In such a condition, it is the duty of the State to provide the necessary assistance to parents to keep the child with them rather than separating the child from the parents. But the 'Cradle Baby Scheme' encourages the parents to detest their unwanted female babies. Thus the right to be cared by the parents is denied only to girl children just because they are born as a female.

Legal Provisions for Deprived Children:

For children deprived of a family environment, it is the duty of the State to create a new family, a new home. Adoption is considered as the best support system to provide a stable and long-term familial environment. In the wake of reports of malpractice in the process of adoption, the Supreme Court issued a series of directions with regard to the detailed procedures to be followed on adoption. Accordingly the Government of India issued Revised Guidelines on Adoption of Children. This is the major national instrument to protect the rights of the abandoned and destitute children. Cradle Baby Scheme is reviewed in the context of CRC and Revised Guidelines to Regulate Matter Relating to Adoption of Indian Children.

As per the 'Revised Guidelines to Regulate Matter Relating to Adoption of Indian Children', while parents are surrendering a female child, the parents should be counselled and fully informed by the agency concerned of the effect of their consent for adoption and the alternatives available for the care and maintenance of the child. The surrender document should be executed at the freewill of the biological parents/parent with no compulsion, payment or compensation of any kind on the part of the agency. The parents should be informed that they have the right to reclaim the child within 60 days from the date of surrender. Further, the parents should be made aware that after the period of 60 days relinquishment deed will become irrevocable and the agency will be free to place the child in adoption or guardianship within or outside India. The surrender document should be executed on stamped paper in the presence of two responsible witnesses whom the recognised agency shall be able to produce, if necessity arises. In case, if a child is found abandoned or is picked up as a destitute, then a report should immediately be lodged with the local police station along with a photograph of a child. The Collector of the District must be informed, who in turn must immediately inform the nearest recognised adoption agency. Police should immediately undertake an inquiry to trace the parents of the child.

Denial of Child Rights:

- In reality the above guidelines are not followed. On enquiry, many parents told that they had surrendered their female babies either at the cradle points or at adoption agencies and the parents executed no relinquishment deed. Except the reception centre in Salem, no other centre is executing surrender document.

- No biological parents were counselled to keep their own children. Fearing that the parents would kill the female babies, they immediately receive the babies.

- Usually the newborn female babies are surrendered at the early or late neo-natal period. By receiving the babies at this stage without conselling the parents, is the sheer denial of mother's milk to the baby. But, every child has a right to be breast-fed by the mother.

- In the absence of execution of relinquishment deed, parents have no knowledge that they have rights to claim back the child within 60 days.

- It is also impossible for the biological parents to trace their child if they want to take them back in the stipulated period of 60 days. (An infant handed over at a reception centre set up in Dharmapuri, as part of the cradle baby scheme in the Dharmapuri Government Hospital was missing) .

- As the parents details are not available with the adoption agency, the child would be denied of the right to know her biological parents.

- Thought many parents surrendered their female babies, records are created as though they were left abandoned.

- In the case of abandoned child or picked up as a destitute state, no serious effort is being taken up by the police to trace the whereabouts of the biological parents.

- In the absence of relinquishment deed, the waiting period extends longer, inspite of identifying prospective adoptive parents as the adoption agency ought to obtain a certificate of orphan from the Juvenile Welfare Board.

Thus the whole process is a blatant denial of survival rights, human rights and child rights.

Implications of expansion of the present scheme:

"In response to members' plea to extend the scheme to the entire state to curb female infanticide, the government had decided to set up reception centres in all primary health centres-**Social Welfare Minister B.Valarmathi** said during her reply to the debate on

the demand for grants for the social welfare department. Under the scheme, the parents, who do not wish to keep their girl babies, could drop them in the government cradles kept the reception centres." **(Hindu, April 27, 2002).** Thus the State advocates the parents to dumb the unwanted female babies in the cradles.

If the main purpose of this scheme is to address the issue of female infanticide, what is the necessity to introduce such scheme in districts where such practice is not heard off. We are afraid that the expansion of the scheme only legitimised the abandoning of female children. It proves the patriarchal construction of the State. The implications need to be studied.

Paper presented by P.Bhavalam, Convenor of CASSA, during the Public Hearing organised by Tamil Nadu State Commission for Women in Chennai on 10th July 2002.

Campaigns and Interventions

Tackling Female Infanticide

Social Mobilisation in Dharmapuri, 1997-99

The heinous practice of female infanticide (FI) is widespread in several Indian states – even in states which boast of a better record in reducing gender inequality. These include the three southern states, minus Kerala, but also Maharashtra. FI is not merely not dying away, it is emerging as a disturbing new phenomenon. That eradication of this practice is not on the agenda of the central or concerned state governments or even of the major political parties reflects the gender insensitivity in our society and polity. However, in Tamil Nadu over the last four-five years, a serious governmental effort is on to address the issue. Evidence from a set of interventions in Dharmapuri district suggests that with political will, widespread generation of awareness and social mobilisation, a dent can be made in eradicating the evil of FI.

VENKATESH ATHREYA, SHEELA RANI CHUNKATH

When the practice of female infanticide in Tamil Nadu was first highlighted by the print media in 1986, the focus was on the taluk of Usilampatti in Madurai district. It was widely presumed that the practice was confined to this particular region, and that only a specific community practised it. Studies that we have carried out since – and reported in *Frontline*, July 11, 1997 and *Economic and Political Weekly*, April 26, 1997 – have established that the practice is widespread in a contiguous belt of districts running south to north along a western corridor of the state. The belt runs from Madurai to Theni in the south through Dindigul, Karur, Namakkal and Salem to Dharmapuri and Vellore in the north. Data on female infant deaths due to 'social cause', an euphemism for female infanticide from primary health centre (PHC) records show that, on an average, around 3,000 cases of FI occur in a year in Tamil Nadu (Table 1). This amounts to around one-sixth to one-fifth of all female infant deaths in the state. Of these Dharmapuri and Salem account for 1,000 to 1,200 each.

Tackling a deep-rooted social phenomenon like FI clearly requires concerted efforts at several levels, and multiple interventions and strategies. A purely law and order approach, treating FI as a crime (which it certainly is), and going about the business of punishment under the laws of the land, would drive the phenomenon underground, rather than reduce or eliminate it. The occasional slapping of a case would have an inhibiting effect, but here, the guilty would most often remain unpunished leading to a miscarriage of justice. The mother, grandmother or an elderly female relative of the infant, who are usually compelled (or otherwise pressured) by the patriarchal male leadership of the family (or neighbourhood social group) to carry out the actual act – would be arrested and punished. Those who incited the crime – often the father of the infant threatening to throw out the mother if she did not kill the female infant – would escape the long arm of the law by concocting suitable alibis.

The need to address a difficult issue like FI, which flourishes precisely because it has acquired social legitimacy in areas where practised, has to be done sensitively and not seen as a law and order issue. The implication of this proposition, however, is not the suggestion sometimes made that the state should rely on non-governmental organisations (NGOs) to tackle the problem. Quite apart from the fact that sometimes NGOs end up counselling the already harassed mother, being unable to put pressure on her husband or the community, there is the critically important question of scale. In a context where the practice is prevalent over an entire block (panchayat union) or district, NGO interventions are bound to be of limited reach. It is evident that upsealing operations to cover an entire block or district definitely requires involvement of government machinery.

Besides, there is also the question of political and social legitimacy. Ensuring the involvement of the community is critical for the success of any intervention on FI; thus elected local bodies – legitimate political entities of local governance – should be centrally involved.

TNAHCP Initiative

The district of Dharmapuri is one of the five project districts under the third phase of the Danish International Development Assistance (DANIDA) assisted Tamil Nadu Area Health Care Project (TNAHCP) being implemented by the government of Tamil Nadu with assistance from the government of Denmark. While the TNAHCP's broad objective is improvement of public primary health care, it was decided to focus on the issue of female infanticide in Dharmapuri, a decision that made sense when viewed against the fact that FI deaths accounted for around half of all female infant deaths in the district.

A strategy to tackle FI in Dharmapuri through a process of social mobilisation was developed by the TNAHCP. The art of street theatre, as part of a multi-media approach, was identified as an important tool in this strategy. The use of this art form as a tool of social communication goes back to the days of the freedom movement. Later, it was the Kerala Sastra Sahitya Parishat (KSSP), a people's science movement, which first demonstrated, in 1980, the potential of itinerant street theatre or 'kalaipayanam', ('kalajatha', as KSSP called it) as not only a tool of communication, but also a powerful tool of social mobilisation. More recently, the strategy of 'kalaipayanam' had been effectively utilised in the mass literacy campaigns of the 1990s to motivate and mobilise the community on the issue of literacy. It was

based on these experiences that the TNAHCP leadership decided to utilise the kalaipayanam strategy in Dharmapuri, both to mobilise the community against female infanticide and to promote community involvement in public health.

In the first instance, it was decided to develop itinerant street theatre troupes 'kalaipayana kuzhukkal' to create awareness on the issue of FI and generate a nuclei of activists throughout the district who would pursue the issue in a sustained manner. This strategy involved several steps:

– Production of appropriate street plays and songs to motivate people to act collectively against the practice of female infanticide.

– Identification and training of committed social activists who would make up the troupes travelling from place to place spreading simple yet powerful messages against female infanticide.

– Ensuring that each troupe consisted of roughly equal numbers of young women and men and that the members of a team touring a particular panchayat union (block) were drawn as far as possible from that panchayat union.

– Approaching the presidents and members of every village panchayat, and enlisting their cooperation in hosting the troupe visiting the village; arranging its performance and ensuring that a large proportion of the panchayat population witnessed the programme.

– Motivating the district and grass roots health officials and functionaries to play an active role in the entire exercise from production of plays and songs to actual conduct of the kalaipayanam programmes.

– Procuring and supplying the necessary equipment and taking care of the logistics of accommodation, transport, etc.

The above brief description of the minimum essential steps involved in deploying the kalaipayanam strategy reveals that it is not a quickfix, easy-to-apply tool for social mobilisation, but in fact, requires considerable preparation as well as a high degree of involvement and commitment. It is also important to stress the role of voluntarism and creativity in designing, producing and performing the skits and songs, as these are crucial for an effective performance and a heightened awareness. Uninvolved professional troupes hired for the purpose could be disastrous. Critical to the production of effective skits and songs is a deep understanding of the social phenomena and processes underlying the horrendous practice like FI, and a sensitivity to the feelings and dilemmas of the people that lead to FI. All this constitutes a tall order. The TNAHCP leadership, being fully aware of this, made adequate preparations, paying careful attention to detail, and enlisting the assistance of street theatre experts. The participation of literacy and social activists, many of whom came from Tamil Nadu Science Forum, a people's science movement in training and actual kalaipayanam, as well as the active involvement of the project officials, greatly helped in ensuring quality. The programme managers worked closely with the social activists and street theatre professionals to ensure that the scripts of songs and skits were consistently gender sensitive and also had a judicious blend of humour and punch, without compromising on content.

Dharmapuri had a population of 24 lakhs in 1991, and the figure would have been around 27 lakhs in April 1998 when the kalaipayanam hit the road. The district is administratively divided into 18 blocks and three municipalities. It was divided for purposes of health administration into two health unit districts, namely, Krishnagiri and Dharmapuri. It was decided to produce the plays with the help of the district level street theatre troupe, which had emerged during the district's literacy campaign between 1994 and 1997. In the process, this troupe emerged as the master-trainer troupe, which was then used to train 18 block level troupes. The process of identification and training of troupe members was itself instrumental in spreading the word around among the people about the kalaipayanam. It was also very significant in social terms as it involved bringing over 350 young rural women and men to stay together in a camp for 15 days. This helped break many feudal social barriers, institutions and prejudices, and proved especially empowering for the women, many of whom had received only a modest amount of schooling and had little exposure to the world outside their own villages. The actual kalaipayanam – during which members of each troupe consisting typically of around eight women and as many men stayed together for over 40 days and presented around 130 to 150 programmes in as many villages – carried this process further. At the end of the kalaipayanam many of the 300-odd women and men had grown in self-confidence and emerged as articulate activists with considerable leadership potential.

The process of preparing for and conducting the kalaipayanam also helped forge closer ties between the project officials and field functionaries of the government's health department, especially the village health nurses, on the one hand, and the panchayat representatives and social activists in the community on the other. While the project funded the production of skits and songs, the training and the travel of the troupes and other related expenses; the local community in most instances provided hospitality to the troupes, made the necessary on-site arrangements for the performance and mobilised the people to watch the programmes. This process led to the emergence in many villages of a local leadership consisting of panchayat representatives, social activists, local health functionaries, etc, for which tackling FI would be a continuing agenda.

Over a period of 40-odd days, from April 26 to June 6, 1998, the 18 troupes covered their respective blocks and completed close to 3,000 performances. Close to seven or eight lakh people – roughly a third of the

Table 1: Female Infanticide Deaths (FID) in Tamil Nadu, 1994-99

Health Unit District	1994	1995	1996	1997	1998	1999
Dharmapuri	947	1048	1081	1048	985	657
Krishnagiri	117	151	138	196	255	320
Dindigul	109	116	75	73	60	60
Erode	43	69	83	77	93	70
Madurai	288	251	158	125	73	79
Theni	352	320	402	281	260	231
Namakkal	32	51	25	107	147	136
Salem	938	982	781	1118	1326	1223
Thiruvannamalai	0	2	11	16	10	33
Tirupathur	143	176	142	139	158	142
Kallakurichi	11	8	15	44	24	44
Vellore	0	1	32	1	0	6
Total – Tamil Nadu (*)	3004	3226	3002	3317	3417	3006

Note: (*) including FI reported from other HUDs, reporting one or more FI death in one or more of the years 1994 to 1999.

Source: PHC records.

district's rural population – watched the programmes directly, while practically every one either knew of it beforehand or came to know of it afterward. A subsequent evaluation study has shown that the programme's direct plus indirect reach was nearly universal, and the programme messages had effectively reached more than a third of the district's rural population.

Involving Elected Local Bodies

The kalaipayanam had a significant impact – through both its process and its outputs, and indirectly as well as directly – on the community in terms of enhancing consciousness and generating core groups in villages committed to working for elimination of FI. However, it was also clear that, without follow-up activity, the momentum could not be sustained. This, in turn would require sustained and sustainable efforts over a longer period of time, much of which would have to be in non-campaign mode. Taking these aspects into account, the project leadership decided to build a long-term intervention strategy around the elected local body leaders. During 1999, panchayat union level conferences of elected panchayat presidents, health functionaries and social activists were held in all the eight panchayat unions of Dharmapuri health unit district (HUD). At each of these conferences, the panchayat presidents committed themselves to working for elimination of female infanticide. Thus, a serious effort to address the issue of a deep-rooted phenomenon like FI, by promoting community involvement, has been initiated.

Decline in FI Incidence?

It is too early to speak with certainty of a declining trend of FI. It is also clear that a phenomenon like FI, with its strong roots in objective conditions – a patriarchal society with strong son preference; universalisation of the small family norm with the emergence of aspirations to a higher lifestyle not easily achievable among wide sections of the population and an increasingly consumerist 'development' process that commodifies women and promotes dowry, violence against women, etc, cannot be tackled and uprooted easily. Yet more than three years of sustained work under the TNAHCP involving the local people. In the initial preparatory work to create awareness and kalaipayanam in 1996-97, have not been without impact. We have community-based data on female infanticide deaths from primary health centre (PHC) records for Dharmapuri for the period 1996 to 1999. The blockwise data on female infanticide deaths is presented in Table 2. The table also shows the excess of female infant deaths over male infant deaths. What emerges clearly from the table is that there is a distinct, if slow, trend of reduction in the number of female infanticides in Dharmapuri district. The number declined from 1244 in 1997 to 997 in 1999. A closer examination shows that the trend of decline is more unambiguous with regard to the Dharmapuri HUD, where panchayat union level conferences against FI have been held. In the case of Dharmapuri HUD, the number of FI deaths have declined from 1081 in 1996 to 1048 in 1997, 985 in 1998 and 657 in 1999. If FI deaths are compared blockwise in Dharmapuri HUD for 1998 and 1999, one finds that, with the solitary exception of Harur block, all other blocks report a significant reduction. A comparison of the reported number of FI deaths with excess female infant mortality for these blocks also suggests that there is not much concealment of FI deaths, except possibly in Dharmapuri and Pappireddipatty blocks.

In the case of Krishnagiri HUD, initial reports of the extent of female infanticide suggested that the situation was much less acute than in Dharmapuri HUD. The focus was therefore on Dharmapuri to begin with. In subsequent years mainly due to the increased process of sensitisation initiated by the TNAHCP project reporting of FI deaths from Krishnagiri improved. Nevertheless, it still remains that the number of FI deaths in Krishnagiri is much less than in Dharmapuri. Moreover, the fact that excess of female over male infant deaths had peaked by 1998 and declined in 1999 also suggests that the kalaipayanam intervention has had a significant positive impact in Krishnagiri.

To understand what may be happening in Dharmapuri HUD, it is instructive to compare the FI deaths in other districts, which have reported significant numbers of female infanticide deaths. The data is

Table 2: Excess Female Infant Mortality (F-M) and Number of Deaths (FID) Blockwise, Dharmapuri HUD, 1996-99

	1996		1997		1998		1999	
	(F-M)	FID	(F-M)	FID	(F-M)	FID	(F-M)	FID
Pennagaram	269	262	248	262	265	279	195	189
Nallampalli	197	232	207	226	185	68	160	132
Morappur	134	134	96	109	101	86	83	72
Palacode	106	127	149	125	138	138	75	49
Karimangalam	129	123	133	130	132	106	80	76
Dharmapuri	111	122	132	106	129	109	58	36
Harur	43	43	20	48	31	47	75	71
Pappireddipatty	33	38	29	42	57	52	55	32
Total Dharmapuri HUD	1022	1081	1014	1048	1038	985	781	657
Uthangarai	86	98	60	48	66	47	54	66
Bargur	33	20	55	25	68	49	73	28
Shoolagiri	20	15	18	20	66	23	22	18
Thalli	6	0	14	3	9	3	26	18
Hosur	−7	0	2	1	21	0	−3	6
Krishnagiri	32	5	42	3	29	4	31	12
Kaveripattinam	79	0	130	69	98	70	132	102
Kelamangalam	7	0	16	0	−10	7	−4	5
Veppanapalli	13	0	31	0	34	4	38	65
Mathur	42	0	61	27	89	48	70	na
Total Krishnagiri HUD	311	138	429	196	470	255	439	320
Total Dharmapuri district	1333	1219	1443	1244	1508	1240	1220	977

Source: Same as Table 1.

Table 3: Excess Female Infant Mortality and FI Deaths, Select HUDs in Tamil Nadu

HUD	1996		1997		1998		1999	
	(F-M)	FID	(F-M)	FID	(F-M)	FID	(F-M)	FID
Dharmapuri	1022	1081	1014	1048	1038	985	781	657
Krishnagiri	311	138	429	196	470	255	439	320
Salem	871	781	1137	1118	1218	1326	1187	1223
Namakkal	137	25	154	107	216	147	160	136
Theni	402	402	257	281	295	260	305	231
Madurai	185	158	237	125	88	73	184	79
Dindigul	64	75	112	73	137	60	82	60
Erode	77	83	20	77	27	93	16	70
Tirupathur	83	142	100	139	144	158	217	142

Source: Same as Table 1.

presented in Table 3. Salem and Namakkal show an upward trend between 1996 and 2000, while Dindigul, Erode and Tirupathur show little change. Madurai and Theni, taken together, show some decline in the number of FI deaths. It is plausible that in Madurai, Theni and Dindigul, efforts of non-governmental organisations over the last decade and a half (including a kalaipayanam initiative in 1995-96 in which the present authors were involved), as well as sensitisation initiatives since 1997 under the Reproductive and Child Health (RCH) project, have contributed to some extent to the reduction in FI deaths. Dharmapuri HUD shows a consistent trend of decline in the number of FI deaths and also reports a declining trend of excess female infant mortality.

As Table 2 shows, the trend decline in FI deaths is consistent across blocks, except for Harur and Pappireddipatty, which are the 'low' FI blocks in the district, and whose reported increase may largely reflect growing awareness and improvements in reporting in the period 1996-99. The reported declines in FI deaths also appear largely credible when one looks at the corresponding excess female infant mortality figures, with the difference between the two varying within a fairly small range.

Sustaining the Momentum

The fact that a series of well-planned intervention involving community mobilisation, and carried out jointly by health functionaries, panchayat leaders and social activists, has resulted in a distinct decline in female infanticide deaths in Dharmapuri HUD is welcome. However, there is no room for complacency. Firstly, the phenomenon of FI has strong social roots and social sanction in the region under discussion, and the dent made cannot be assumed to be sustainable. Secondly, the one-shot mobilisation effort needs to be followed up by creation and sustenance of grass roots structures that would be constantly active in the struggle against female infanticide. Thirdly, a whole host of economic and social structures and processes that reinforce patriarchy, devalue and commodify women, and promote such phenomena as dowry will need to be addressed seriously if a sustained reduction leading ultimately to elimination of FI is to be achieved. The fact that the practice of FI has occurred in nearly 140 blocks (out of 387 in the state) during the last four years, and that at least half of these blocks are outside the core FI region of Madurai – Theni – Dindigul – Namakkal – Salem – Dharmapuri, serve to remind us that we are literally sitting on a volcano.

The horrendous situation in Salem – Namakkal, where FI deaths have been increasing, serves as a reminder that proactive government intervention of the kind carried out in Dharmapuri is critical to preventing such increases and rolling back the incidence of female infanticide.

There is considerable anecdotal evidence of the spread of the practice of female foeticide to several medium and large towns in Tamil Nadu. Increasingly, female foeticide is coming to be perceived as a viable option in semi-rural areas around the urban periphery, and in the urban areas proper. This should hardly be surprising. Widespread acceptance of the small family norm in Tamil Nadu (partly a result of governmental efforts, and partly an outcome of rising but not easily realisable aspirations for a 'good life') in the context of the prevailing socio-cultural ethos of strong son preference is bound to imply an incipient threat to higher order female foetuses and infants. The already existing social legitimation of female infanticide makes the transition to the practice of sex-selective foeticide considerably easier. In short, while a beginning has been made in the fight against female infanticide in Tamil Nadu through an innovative effort, that offers important lessons for other states, the road ahead is far from easy. The broadest possible coalition against female foeticide and infanticide needs to be built and sustained. This implies a commitment to developing a people's movement involving both 'civil society' and the state. EPW

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Backdrop:

The child sex ratio (0-6 years) has been dramatically declining in Tamil Nadu over the last 60 years. The girl child sex ratio for Tamil Nadu was 1010 in 1941 and declined to 948 in 1991 and fell to 939 in 2001.

The declining sex ratio, or increasing severe imbalance in the ratio of males to females in the population, is a grave danger facing the country in general and Tamil Nadu in particular. Together with female infanticide in Tamil Nadu there is an increasing prevalence of female feticide. The rapidly increasing and widespread availability of modern scientific devices and technologies such as amniocentesis, chorionic villi biopsy, sex selection X-Y separation of Pre-implantation Genetic Diagnosis (PGD) practice and now the even cheaper, simpler and less obvious technology of ultra-sound, have led to widespread misuse. Female feticide is not a practice confined to certain groups or regions. This practice is now spreading across caste, class, geographical boundary and rural-urban divide.

Indicators of Female Infanticide:

Infant Mortality Rate (IMR), the number of infant death in a year is the best indicator to understand the incidence and intensity of the practice of female infanticide. The general fact is that infant mortality rate of male is higher than female. On the contrary, if IMR of female is higher than male, then we can conclude that the practice is prevailing.

The period of infant death includes early neo-natal (0 – 7 days), late neo-natal (8 – 28 days) and post neo-natal (29 days – one year) periods. **If the IMR gender differential (IMR of female – IMR of male) is higher, it is an indicator to understand the incidence of female infanticide.** The analysis of early neo-natal deaths and late neo-natal deaths and the gender differential during this period will reveal the prevalence and intensity of female infanticide.

From the data and field experience, female infants are normally killed before the completion of thirty days (inclusive of early and late neo-natal period), after which they normally escape from killing as the mother and generally the family develops an attachment to the female child. Still one can argue that the post neo-natal deaths of female infants can be equated to female infanticide as it is a sheer neglect on the part of the parents in terms of girl child's nutrition and health care, ultimately resulting in elimination.

Table 1: IMR for the year 2000 – Theni District (PHC Data)

	Total Birth	Early Neonatal Mortality (0 – 7 days)	Late Neonatal Mortality (8 – 28 days)	Post Neonatal Mortality (29 – 1 year)	IMR
Male	11810	147	48	112	307
Female	10608	335	89	101	525

Table 1 (a):

	Total Birth	Early Neonatal Mortality Rate	Late Neonatal Mortality Rate	Post Neonatal Mortality Rate	IMR
Male	11810	12.4	4.1	9.5	26
Female	10608	31.6	8.4	9.5	49.5

Dharmapuri Dist – for the year 2000 (PHC Data):

Table 2:

	Total Births	Early Neo-natal Mortality	Late Neonatal Mortality	Post Neonatal Mortality	IMR
Male	14789	259	80	120	459
Female	13283	663	112	103	878

Table 2(a):

	Total Births	Early Neo-natal Mortality Rate	Late Neonatal Mortality Rate	Post Neonatal Mortality Rate	IMR
Male	14789	17.5	5.4	8.1	31
Female	13283	49.9	8.5	7.7	66.1

Tables 1, 1(a), 2 and 2(a) clearly show that in both Theni and Dharmapuri districts, the IMR of female exceeds the IMR of male. The IMR differential clearly indicates the practice and intensity of female infanticide. It is very obvious if we correlate the early and late neo-natal mortality rates for both the gender. From the above tables, it is evident that the IMR gender differentials is higher and to be more specific, more killings take place during early and late neo-natal periods.

Indicators of Female Feticide:

The sex ratio at birth is the direct indicator of female feticide. 10 million girls are born in India every year and almost 2 million female fetuses are aborted annually after sex determination. But IMA gives a shocking note that 5 million female fetuses are aborted annually. In Tamil Nadu, the sex ratio at birth is below 900 in many of the blocks and districts.

The US Department of Commerce has proved that the natural female to male sex ratio at birth is 100:103 – i.e. 971 female children for every 1000 male children, which is a biological sex ratio at birth. Thus a deviation from this ratio will indicate sex selective abortion or female feticide.

Data collected from three Primary Health Centres of Usilampatty Taluk of Madurai District for the year 1998 reveals that the sex ratio at birth are 718, 888 and 787 respectively. According to Department of Public Health Survey 1996, the sex ratio is below the biological sex ratio at birth in the districts of Kancheepuram, Dharmapuri,

Viluppuram, Salem, Erode, Nilgiris, Coimbatore, Dindigul, Trichy, Perambalur, Thanjavur, Pudukottai, Madurai, Virudhunagar, Ramanathapuram, Tirunelveli, Kanyakumari and Nagapattinam. According to V.S.Survey for 1998 (Danida Tamil Nadu Area Health Care Project), the sex ratio at birth is below the natural female to male sex ratio in 21 districts.

Table 3: Theni District for the year 2000

	Rural	Urban	Combined
Sex Ratio at Birth	886	939	898
Sex Ratio in 1 year	857	945	877

Table 4: for the year 2000

	Dharmapuri District
Sex Ratio at Birth	898
Sex Ratio in one year	866

From table 3 and 4, it is evident that the sex ratio at birth as compared to biological sex ratio at birth shows an alarming decline. This reduction clearly proves the incidence and intensity of female feticide in these two districts, thanks to the proliferation of medical technologies such as scan centres, Pre-implantation Genetic Diagnosis and the inactive nature of the State to enforce the PNDT Act.

Girl Child Death Rate:

The high death rate of female children through out their childhood life is also attributed to declining sex ratio against females. Poor nutritional and health status of the girl children due to neglect of parents and negligence of the State and the subsequent higher morbidity are the reasons for high death rate of female children. The sex ratio of children in selected districts according to 2000, in the following table, will clearly reveal it.

Name of the district	0 – 5 years	5 – 10 years	10 – 15 years
Virudhunagar	905	645	733
Viluppuram	772	673	835
Salem	905	774	713
Erode	646	771	804

Source: Report of the Survey in Tamil Nadu April 2000, Dept. of Economics and Statistics

In the words of Dr V.B.Athreya, the decline in birth rate is brought out at the cost of grave gender inequality, which has its own devastating long run consequences. Universalisation of small family norm without the concomitant attack of son preference and in the context of the largely commercialised medical profession for whom ethical concerns are not high on their agenda, and an overall permissive atmosphere where State and community intervention is generally frowned upon can be disastrous for the gender balance of the population.

Women's powerlessness caused by both inequality and abuse and perpetuated by the patriarchal family, state and community threatens the very survival of girl child both before birth and soon after birth. Their rights are violated by acts of elimination from those they should be able to count upon to protect them. It is a tragic irony that the girl child is in the greatest danger in the place where she should feel more secure, in the womb of the mother

Definition of different terms:

Female Infanticide: Intentional killing of baby girls after birth on account of the fact that she is "female"

Female Feticide: Intentional killing of fetuses in the mothers' womb, after determining that it is female

$$\textbf{Infant Mortality Rate} = \frac{\text{Number of infant deaths in a year x 1000}}{\text{Total number of live births in a year}}$$

$$\textbf{Early Neo-natal Mortality Rate} = \frac{\text{Number of infant deaths within 7 days of birth in a year x 1000}}{\text{Total number of live births in a year}}$$

$$\textbf{Late Neo-natal Mortality Rate} = \frac{\text{Number of infant deaths from 8 days to 28 days of birth in a year x 1000}}{\text{Total number of live births in a year}}$$

$$\textbf{Post Neo-natal Mortality Rate} = \frac{\text{Number of infant deaths from 29 days to one year of birth, in a year x 1000}}{\text{Total number of live births in a year}}$$

$$\textbf{Sex Ratio at Birth} = \frac{\text{Number of live female births x 1000}}{\text{Number of live male births}}$$

Save the Girl Child

Public Interest Litigation Filed in Supreme Court

Public Interest Litigation for the Enforcement of the PNDT Act:

The Centre for Enquiry into Health and Allied Themes (CEHAT) – Mumbai, the Mahila Sarvanggeen Utkarsh Mandal (MASUM) – Pune and Sabu M.George filed a writ petition (Civil) in the Supreme Court vide No.301 of 2000, with the complaint that the PNDT Act is not implemented by the Central Government or by the State Government. They contended that techniques such as pre-implantation genetic diagnosis (PGD) violated the Act. They sought a ban on advertisements relating to all sex selection techniques before or during pregnancy. They sought directions to the Central and State governments to implement the PNDT Act in full by appointing appropriate authorities and advisory committees at the State and district levels as the appropriate authorities did not function in most States and periodical meeting of Central Supervisory Board.

The Court issued notices to the concerned parties on9.5.2000. It took nearly one year for the various States to file their affidavits in reply / written submissions. After considering the respective submissions made at the time of hearing of this matter, as suggested by the learned Attorney General for India, Mr. Soli J.Sorabjee following directions were issued on the basis of various provisions for the proper implementation of the PNDT Act.

Summary of the Interim Order of Supreme Court passed on 4th May 2001:

Directions to the Central Government:

- The Central Government is directed to create public awareness against the practice of pre-natal determination of sex and female feticide through appropriate releases programmes in the electronic media.
- The Central Government is directed to implement with all vigor and zeal the PNDT Act and the Rules framed in1996. Ordered that the intervening period between two meetings of the Advisory Committees should not exceed 60 days.

Directions to State Government / Union Territory Administrations:

- Constitution of Appropriate Authority at the district and sub-district levels and also appointment of Advisory Committees to aid and advise the Appropriate Authority in discharge of its functions.
- Create public awareness against the practice of pre-natal determination of sex and female feticide through advertisement in the print and electronic media
- Submit report on the implementation and working of the Act once in three months to the Central Supervisory Board. The report should include the registration details and action taken against non-registered bodies, complaints received under this Act and details of awareness campaigns.

Directions to Appropriate Authorities:

- Take action against non-registered bodies and against those who issued any advertisement in violation sec 22

The Central Supervisory Board and the State Government / Union Territories are directed to report to this Court on or before 30th July 2001 and listed the matter on 6.8.2001 for further directions.

Response submitted by Tamil Nadu Government:

The Tamil Nadu government in its counter affidavit stated that it has appointed the Appropriate Authorities and the Advisory Committees both at State and District levels. Admitted that the Pre-implantational Genetic Diagnosis (PGD) could be misused to identify and to discard the female embryo before an embryo is implanted in the uterus of a woman and therefore it is necessary to bring the above said exercise for Pre-implantational Genetic Diagnosis also within the purview and meaning of the Act whether it is pre-natal or pre-implantational genetic procedure with suitable amendment to the Act for strict Governance and enforcement of the Act in letter and spirit.

Submitted that on and from the commencement of this Act, as many as 940 Genetic Clinics/ Laboratories in the State of Tamil Nadu have obtained the proper application forms from the office of the Director of Medical and Rural Health Services, Chennai – 6 for registration as per the Act of which only 602 applications have been received in the office of the Director of Medical and Rural Health Services for issue of registration certificates. As many as 561 registration certificates have been issued against 602 applications received as on date and only 41 applications received in the office of the Director of Medical and Rural Health Services are under process. It is further submitted that keen efforts are being taken to get the Genetic Clinics/Genetic Laboratories functioning without authorisation duly examined and registered for further regulation as per the Act. Stated that the Tamil Nadu Government has filed two cases under PNDT Act.

Save the Girl Child

Resolutions of Campaign Against Sex Selective Abortion

Legislative Reforms:

- Strict implementation of the Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994 and compulsory registration of all Genetic Counselling Centres, Genetic Laboratories and Genetic Clinics.
- Take stringent action against the violators of the of Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) Act 1994, by formulating suitable procedures which empower the Appropriate Authority to take action.
- Stop all medical technologies that imbalances the birth ratio of female children.
- Strictly enforce all progressive legislation and enact legislation to protect the rights of the girls and women.
- Enacting a central legislation for ensuring the registration and monitoring the functioning of all private clinics as there is a growing trend in commercialisation of medical profession.
- To bring out necessary amendments in the PNDT Act and MTP Act which takes away the punishment for women, empowering the Advisory Committee for monitoring the pre-natal diagnostic centres, to broad base the definition of the word 'pre-natal', 'ultrasonography', submission of status report on the usage of pre-natal diagnostic techniques and abortion once in six months, strict enforcement of MTP Act etc. (For details refer back)

Administrative Reforms:

- The Health Secretary should issue necessary GO for periodical reporting of births, deaths and abortions by all the private hospitals and Government hospitals, to the State and this should be made public on request.
- Registration of all births and deaths should be made compulsorily at the village-level, through the statutory health committee formed under Panchayat Raj Institutions..
- Activate the Health Committee at the panchayat level to monitor the health services at the village level.
- Sex of the fetus for all second trimester abortions to be documented clearly
- Publish a scientific report every year on the causes for the declining child sex ratio and the steps taken by the government to stop the decline trend.

CASSA

- Form Monitoring Cell at the panchayat level to look into the incidence of atrocities on women and girl child.
- Maintain the disaggregate data by sex and age related to children and make it open to public.

Policy Initiatives to be taken by the State:

- Registering and monitoring of all pregnancies from 6th weeks onwards and not from 12th weeks, to avoid selective elimination of female fetuses and to improve the health status of pregnant mothers.
- Increase the age of marriage age of girls from 18 years to 21 years.
- Provide compulsory, free, quality education to all girl children up to secondary school level.
- Extend 50 per cent representation to women in all decision-making bodies of the State to introduce a feministic political culture conducive to women-friendly political action.
- Eradicate child labour and guarantee employment for adult women
- Bring policy and legal measures to ensure that women have rights and control over productive resources, for the economic empowerment of women.
- Provide life-sustaining resources such as health, nutrition, water, education etc., to all the children without gender bias.
- Entrust power to panchayats to maintain a register of demographic profile with the details on vital statistics
- Frame the child policy and girl child policy to protect the interest of the girl children
- Extend gender sensitisation training to policy makers, planners, administrators and implementors at all level.
- Promote gender perspective into all policies and sectoral programmes

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MONITORING THE DECLINING CHILD SEX RATIO – A SUGGESTED METHOD

Position Note to include Sex Ratio At Birth, Infant Mortality Rate Gender Differential and Under Five Mortality Rate Gender Differential as indicators to calculate the Demographic Index, Human Development Index and Gender-related Development Index.

The United Nations' Declaration of 'World Fit for Children' and 'Plan of Action' directs every member State to reaffirm their commitment to promote and protect the rights of children. Through national actions and international cooperation, government of member States committed themselves to promoting healthy lives, providing quality education, protecting children against abuse, exploitation and violence, and eliminate malnutrition. They pledged to achieve these goals, 'to change the world, not only for children, but most importantly **with** children'.

United Nation has set 'Millennium Development Goals' and the eight goals are: 1.. Eradicate extreme poverty and Hunger, 2. Achieve universal primary education, 3. Promote gender equality and empower women 4. Reduce child mortality 5. Improve maternal health 6. Combat HIV/AIDS, malaria and other diseases 7. Ensure environmental sustainability 8. Develop a global partnership for development and the Member States of United Nation have pledged to meet these goals by 2015, six of which are directly related to children.

If we are to meet the goals of " A World Fit for Children' and attain the Millennium Development Goals, if we are to make the world truly fit for all children, the survival rights and participation of children of both the gender in the development process must be ensured.

The UN Convention on the Rights of Children places an obligation on the Indian State to protect and promote the rights of children.

Convention on the Rights of Children:

Art 2: The child should be protected from discrimination of any kind in terms of race, colour, sex, language, religion, political, national, ethnic, property, disability and birth or other status.

Art 6: State parties should ensure the children's inherent right to life, survival and development of the child.

Art 24: State Parties recognise the right of the child to enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. State Parties shall strive to ensure that no child is deprived of his or her right to access to such health care services. State parties shall take appropriate measures to diminish infant and child mortality.

The rights of the girl child is ensured in Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), in the following articles:

- Discrimination against women, denying or limiting as it does their equality of rights with men, is fundamentally unjust and constitutes an offence against human dignity
- All appropriate measures shall be taken to educate public opinion and to direct national aspirations towards the eradication of prejudice and the abolition of customary and all other practices, which are based on the idea of the inferiority of women.

CEDAW Convention insists that the state parties have the obligation to ensure the equal rights of men and women to enjoy all economic, social, cultural, civil and political rights.

Beijing Convention:

The Beijing Flatform for Action, adopted at the Fourth World Conference on Women, included "the Girl Child" in its 12 critical areas of concern. It recognises that in many countries, the girl child faces discrimination in all stages of life from birth through childhood and into adulthood. It urges the government to take action to provide access for girls to training and information, to enable them to articulate their views and to promote the equality and participation of girls.

Review on the existing health indicators of Millennium Development Goals:

The progress of the children world over is usually measured with the agreed indicators like Under Five Mortality Rate (U5MR) and Infant Mortality Rate(IMR). Both these

measurements are principal indicators of children's well being. Both U5MR and IMR are known to be the result of a wide variety of inputs: the nutritional health and health knowledge of mothers; the level of immunization and ORT use; the availability of maternal and child health services (including prenatal care); income and food availability in the family; the availability of clean water and safe sanitation and the overall safety of the child's environment.

According to data quoted by UNICEF in 'The State of the World's Children 2000', the difference in U5MRs between developing and industrialized nations has increased, and in some developing countries, the rates are now more than 50 times higher than in the industrialised world. In countries where the U5MR for girls exceeds that for boys, gender discrimination is thought to be a factor. U5MR rate for girls is disproportionately high in many countries of South Asia and Sub-Saharan region and in some of the countries in East Asia and Pacific Region and East European Region. Elsewhere in the world, women generally experience lower mortality than men at almost all ages (Visaria 2002). Hence sexwise disaggregated for all countries needs to be made available including for USA and other European countries.

Though the organisations like UNICEF, UNDP have recognised the prevalence of gender discrimination in the above countries, they have not included IMR Gender Differentials and U5MR Gender Differentials as part of the Demographic Index, especially under Human Development Index and Gender-related Development Index. India scores 54th position amongst 178 countries in the U5M and U5MR is 93 and IMR is 67 for the year 2003 (Source: The State of World's Children 2003). Though reduction in IMR is kept as an indicator as well as goal by UN, the IMR Gender Differential to assess the prevalence of female disadvantage at the post-natal period is not consider as an important indicator of demographic index.

The need for inclusion of 'Gender Differentials' and 'Sex Ratio At Birth' is discussed in the following paragraphs based on the experience of Campaign Against Sex Selective Abortion (CASSA) at the National and Regional level.

Demographic Data of India to assess the female disadvantage – A Case Study:

The Constitution of India places an obligation on the Indian State to protect and promote the rights of the children.

Constitution:

Article 14 : Equality before law

The State shall not deny to any person equality before the law or the equal protection of the laws within the territory of India.

Article 21 : Protection of life and personal liberty

No person shall be deprived of his life or personal liberty except according to procedure established by law.

Results of the first population census of the millennium for India reveal a number of significant changes in the sex ratio patterns in the country. One finds for the country as a whole a sharp decline in Juvenile Sex Ratio (JSR) from 945 in 1991 to 1927 in 2001. The decline is even sharper in several states. The JSR has declined from 951 to 897 in Himachal Pradesh, 875 to 820 in Haryana. In Gujarat. it has declined from 928 to 878 and in Maharashtra from 946 to 917. The general decline in the JSR practically across the entire country is breaking the traditional pattern of north- south divide in sex ratios. The sex ratio in the Indian Population are becoming rapidly masculine. A marginal increase of 6 points in the female to male ratios of the overall population; 933 in 2001 from 927 in1991. But there has been a sharp decline of 18 points in the female/male ratios among children (0 – 6 years – JSR), during the same period (Source: Census Data). The JSR includes 'Sex Ratio At Birth', 'Infant Mortality Rate' and 'U5 MR'. The disaggregated data of all these indicators clearly reveal the prevailing female child deficit in the country. The negative score in Gender Differential in IMR (IMR Male – IMR Female) is largely attributed to the existing practice of female infanticide.

Sex ratio at birth is nearly constant – within the range of 104 -107 male live births per 100 female live births (Agnihotri, B.S. 2000; McKee. 1984, Visaria 1971). This is called the biological sex ratio*. Therefore the biological sex ratio ranges from 971 to 935 per 1000 girls or 952 average. Thus a deviation from this ratio will indicate sex selective abortion or female feticide.

The higher death rate of female children (0 – 5 years) is also attributed to declining juvenile sex ratio. Poor nutrition and health status of girl children due to neglect of parents, negligence of the State and the subsequent higher morbidity are the reasons for the high death rate of female children.

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* From our investigation as a campaign, we remain unconvinced about the rationality of the argument. Because, this implies serious political and gender implications. The campaign is investigating this matter further. For the present, we are proceeding with this argument.

The rapid decline in female/male ratio among children clearly points out that sex selective abortion or female feticide is the major contributing factor. Sex Selective Abortion is carried out by professionals, superior in the power hierarchy. They use scientific techniques, hardware and skills; sanitise the process of eliminating the female fetus and reduce burden of guilt on parents. Rajan and et al., have used the reverse survival technique ** (UN 1983, Chapter VIII) and worked out the estimated SRB at the district level.

Patterns in Estimated Sex Ratio at Birth (m/f) and U5 Sex Ratio (f/m) in India, 1981 – 1991

	Estimated SRB M/F			U5 Sex Ratio F/M		
	1981	Range	1991	1981		1991
N districts	398		452	398		452
Mean	101.5		104.0	105.1		104.3
SD	3.6		3.9	13.2		13.6
N Districts in Range (%)	225 (56.5)	<102	136 (30.1)	167 (42)	<100	192 (42)
	147 (36.9)	102 – 107	231 (51.1)	231 58	100 +	260 58
	26 (6.5)	>107	85 (18.8)			

(Source: Irudaya Rajan et al., Economic and Political Weekly Oct. 11-17, 2003 Vol. XXXVIII No.41)

The above Table describes the underlying data on estimated M/F SRB and F/M U5 Sex Ratio. The average all India estimated M/F SRB grew a little more male-dominant (within the normal range) over the decade, and the F/M U5 Sex Ratio barely changed. The proportion of districts with masculine estimated SRB tripled from 1981 (about 6 per cent) to 1991 (about 18 per cent). The proportion of districts with female disadvantage U5 SR remained at around 58 per cent and grew more dispersed in location and range. Thus, gender gap in child mortality did not diminish in this decade.

The period SRB is a strong indicator of prenatal sex selection and is thus emerging as a significant data need for India. Rajan et al., have treated SRB values more masculine than 107 M/F as an indicator of weeding out of girls, either through prenatal sex selection, or underreporting female births. They have found out that Female disadvantage remains strong in the northern belt and also deeply penetrates all four major southern states and in north- east.

** This technique is based on the notion, that children aged x are the survivors of births that occurred x years ago. Therefore, we can take the numbers of children recorded at age x and observed mortality risk for children in that population, and, using a suitable model life table for the population in question, 'resurrect' the numbers who had died. From the result we take the ratio of male to female children and estimate SRB.

Thus it is very important to infer that girls in India is experiencing a 'double jeopardy' of increasing prenatal elimination concurrent with persistent post-natal risk. On the one hand, the average estimated SRB in India grew 3 percentage points more masculine between 1981 and 1991. At the same time, the average gender gap in child mortality still shows female disadvantage. That is, in the aggregate, in India pre and post-natal risk to daughters may run concurrently, a scenario that suggests intensifying gender bias.

Interpreted as a restriction of girl children's right to live, female disadvantage in child mortality is rightly taken as one of the most significant indicators of gender bias in India. This phenomenon is not due to greater natural fraility of girl children, but results from parents practices discouraging the life chances of unwanted daughters through selective negation at the fetal level or infanticide. Despite socio economic development, fertility decline and falling mortality for both the sexes, the male- female child mortality gap did not shrink during 1981-1991 (Das Gupta and Bhat 1997), but also hitherto egalitarian parts of the economy (Basu 1999 and Rajan., etal).

In countries such as China and South Korea, with diverse development trajectories and standards of living compared to India, but nevertheless sharing a strong cultural son-preference, prenatal sex selection techniques seem to be replacing post-natal method (Yi et al 1999, Good kind 1996). That is, SRB are growing abnormally masculine while sex ratios of infant/child mortality are growing more egalitarian. Fewer girls are being born, but those born are more wanted and tend to survive. Even then, SRB as an indicator of female disadvantage before birth is very relevant even in countries like China and South Korea.

Before we conclude, we like to place the Tamil Nadu experiences from information available with the campaign.

Demographic Data of Tamil Nadu to assess the female disadvantage – A Case Study:

In India, for states like Kerala, Tamil Nadu and Goa, registration of births is nearly total. (Seminar – Dec 2003, The Missing Girls by Leela Visaria) Hence, it is possible to calculate the sex ratio at birth from actual births.

The CASSA has been investigating government data with regard to Sex Ratio at Birth and IMR Gender Differential. Data collected from PHCs of Tamil Nadu are analysed to understand the extent to which female births are prevented from occurring.

In Tamil Nadu, which is known for the practice of killing female child soon after birth in certain agrarian pockets of the State is now again being focused for the declining child sex ratio. The Juvenile Sex Ratio (0 – 6 years) has been dramatically declining in Tamil Nadu over the last 60 years. The JSR for Tamil Nadu was 995 in 1961 and declined to 948 in 1991 and fell to 939 in 2001. (Census Data). In Tamil Nadu, the JSR was below 900 in Theni, Namakkal, Salem and Dharmapuri.

According to the census of 2001, four of Tamil Nadu's 30 districts report JSRs (rural and total) below 900. Rural JSR are as low as 763 in Salem, 869 in Dharmapuri, 873 in Theni and 882 in Namakkal. Of 201 taluks in the State, 28 taluks from 11 districts report JSR (rural) below 900. Ten of these have JSR below 850 – five from Salem, three from Dharmapuri, and one each from Madurai and Vellore. Six of these ten have JSR (rural) below 800.

In Chennai the Sex Ratio at Birth for the period 2002 – 2003 was 906, which was much below the biological sex ratio. The inference is that the incidence and intensity of female feticide is Chennai (urban) is on the increase. In the same way, the sex ratio at birth for the districts, Salem, Namakkal, Theni and Madurai were analysed.

In Salem, of the 20 blocks, in 19 blocks the sex ratio at birth was below the biological sex ratio for the period (2002 – 2003). SRB for this period shows a negative trend in 16 blocks when compared to the previous year (2001 – 2002). The SRB for the Salem district in the period 2001 – 2002 was 928 and declined to 888 in 2002 – 2003.

In Theni the SRB for the period 2000 – 2001 was 886 and declined to 863 in 2001 – 2002. Theni has 24 Primary Health Centres. The SRB declined by less than 50 points in 3 PHCs, between 50 – 100 in 2 PHCs; 100 – 200 in 3 PHCs; 200 – 300 in 3 PHCs and more than 300 in one PHC. Similar trend is observed in Madurai and Namakkal Districts. The data made it clear that the sex selective abortions contributes more for the sex ratio imbalance than the practice of female infanticide.

According to the PHC data for the year 2000, the IMR Gender Differential is negative in 12 districts in Tamil Nadu and the difference is higher in Salem District (-65.4). The IMR gender differential is two digits in Dharmapuri, Madurai, Namakkal, Salem, Vellore and Theni Districts of Tamil Nadu.

Further 20 districts have sex ratio at birth lower than the biological sex ratio. This shows that the practice of female feticide is prevalent in almost all the districts in Tamil Nadu. In Tamil Nadu 95 per cent of the births are registered. Hence, the data on SRB is a valid data.

Double Discrimination against girls at pre and post natal period – Tamil Nadu:

	Sex Ratio at Birth		IMR(Gender Differential)	
	1996	2000	1996	2000
Dharmapuri	902	894	- 42	- 37
Madurai	921	916	- 8	- 13
Namakkal	861	891	- 12	- 23
Perambalur	977	915	0	- 7
Salem	880	869	- 32	- 65
Theni	912	900	- 21	- 39

The above table only proves that girl children are discriminated before and after birth. In the absence of accurate information on such vital events, we have to depend on the census data on Juvenile Sex Ratio. Other things being equal, the juvenile sex ratio does not undergo significant changes over time. In India, with a somewhat faster decline in female child mortality compared to male child mortality, the juvenile sex ratio should over time become more favourable to girls. However, contrary to this expectation, the defict of girls increased.

However, it would have been much more public knowledge and transparent if this data was part of the vital statistics and Human Development Index and Gender-related Development Index. For organisations and government, very concerned about the Juvenile Sex Ratio, the institutionalisation of SRB, IMR Gender Differential, U5MR Gender Differential are very important, as they are vital indicators of status of girl child and women. CASSA has made attempts to influence State Planning Commission and National Planning Commission to consider this seriously. CASSA has already made representation to the Ministry of Health and Family Welfare and Department of Health and Family Welfare to immediately take steps to provide this information in all their data and Atlas.

Keeping these perspectives in mind, CASSA is presenting this paper to draw the attention of the scholars to support the rationale of including Sex Ratio at Birth, IMR Gender Differential and U5MR Gender Differential as indicators at the national and international level. Unless, goals are set for reducing gender gap, the millennium goals cannot be achieved.

Paper Circulated by CASSA during the "III International Forum for Defence of People's Health" in Mumbai on 14th and 15th of January 2004 and during the Consultation on "Missing Girls: A Case of the Misuse of Medical Technology" on 19th January 2004, at WSF Meet in Mumbai, jointly co-ordinated by Vimochana and CASSA.

Received from Oscar Fernandes

Minutes of the two days National Consultation on Enforcement of PCPNDT Act

CEHAT, a Health Action Group has been advocating against Sex Determination and Sex Selection for more than two decades. CEHAT along with MASUM and Sabu George filed a PIL in the Supreme Court regarding the enforcement of the PNDT Act. Supreme Court has passed various interim orders and while disposing off the petition, pulled up the State Appropriate Authorities and pushed them for rigorous implementation of the Act and strict vigilance on medical professionals conducting sex selective diagnostic tests. In its final order it was also spelt that the parties could approach the Supreme Court in case of any difficulty in implementing the directions mentioned by it.

In this context, CEHAT called for a National Consultation on Enforcement of PCPNDT Act, in Mumbai on 27th and 28th November 2004, with the following objectives:

- Review of the status of implementation of PCPNDT Act in the country after the final order of the Supreme Court
- Form a network of NGOs working on the issue who would work collectively towards monitoring the implementation of the Act
- Review the existing advocacy material on the issue of sex selective discriminatory practice

CASSA was invited to represent Tamil Nadu and on behalf of CASSA, Phavalam and Gandimathi participated and presented the status of enforcement of PCPNDT Act in Tamil Nadu by our State and CASSA's efforts in enforcing the Act. Representatives from 17 States / UTs participated. Each participant presented a paper on the efforts taken the respective organisation and the State on the enforcement of the Act.

Status of enforcement of the Act in different States, Economics and politics of Technology, Over medicalisation of Pregnancy, Need for strict enforcement of Medical Ethics were the primary focus of discussion, during the 2 days National Consultation on Enforcement of PCPNDT Act.

Main Deliberations and the outcomes were as follows:

- Amniocentesis and CVB were the widely prevailed technologies for sex determination and sex selection at the time to framing legislation to regulate the pre-

natal diagnostic technologies. The PNDT Act was framed and enacted regulating these technologies, which is inappropriate in the present context where ultrasonogram predominate other technologies. The present PCPNDT should be revamped, keeping in mind the widely prevalent technologies and newer technologies of sex determination (pre conception sex selection and medical termination pills)

- There was also a concern voice about the time limit in which the court should give judgments on the cases filed.
- The powers of statutory bodies like the State and National Human Rights Commission and Commission for Women needs to be used in the implementation of the Acts.
- Proper record keeping is the primary area/component to ensure the enforcement of the Act. The Act also clearly spells about the importance of record maintenance. But there is no punitive clause for non-maintenance of records. Act should be amended appropriately.
- The referral doctor should be brought within the ambit of the law.
- The need to interlink PCPNDT Act and MTP Act was felt to identify the culprits.
- The provision of 15 days notice to the Appropriate Authority by a person making complaints should be removed, as this provision would provide chances for the violators to hide the material evidences before the appropriate authority initiate investigation.
- Violation of PCPNDT Act is a criminal offence. Act should be amended appropriately to attract CrPC provisions and the role of police in the investigation.
- Court Directions should be sought to define arrest and lay down arrest procedures.
- Time limit for disposal of cases under PCPNDT Act should be spelt down.
- The Appropriate Authorities should initiate Suo motu investigation against violations such as advertisement on sex determination and sex selection, non-maintenance and disclosure of records, sex determination through oral communication, disclosure of sex, records of abortions sex-wise, etc., which will strengthen the implementation of the Act.

- CEHAT can act as a resource agency to pool and disseminate information.
- Small committee to be constituted to review the Act and lobbying for amendment.
- The issue of sex determination, sex selection and declining child sex ration should be linked up with other instruments like CEDAW and Beijing +10.
- Study should be conducted to study the degree of correlation between the number of scan centres and poor sex ratio.
- Demography lobby to include Sex Ratio at Birth, Infant Mortality Gender Difference and Under Five Mortality Gender Difference in Human Development Index and Gender Development Index.
- Need to initiate joint action with different interest groups and medical forums like FOGSI, IMA and Medical Council.
- The focus of intervention needs to shift from awareness to mass mobilisation and action.
- Lobby to enact central legislation to regulate all the Private Clinics, Private Medical Colleges and Medical Market, for making them accountable to Public Monitoring and make mandatory for private hospitals to furnish all records for government and public scrutiny.
- Needs to file many cases and use the existing law and document the shortcomings in the law.
- A need to lobby against the population policies propagating two-child norm.
- Need to review the birth and death registrations systems in each state and make recommendations to improve the same.
- Need to place the issue of sex selective abortion in the umbrella of violence against women and girls. It also needs to be reviewed in the context of globalisation and privatisation.
- Need to go back to the Supreme court with the experience and problems faced during implementation of the Act and documentation of cases from various States on failures of the Act.

* Need for a strong network of organisations working on the issue and plan standardized campaign against sex selection.

Outcomes:

* **NATIONAL CAMPAIGN AGAINST SEX SELECTION, a network of organisation working on the issue was formed.**
* **Observe 29th January 2005 to 2nd February 2005 as "National Week for Campaign Against Sex Selection". The network organisations can chalk out the strategy in their respective State, in consultation with their member organisations, to work on this issue. Common Action in all the State and Union Territories be organised on 29th January under the banner "National Campaign Against Sex Selection".**
* **Get the attention of the international community on the issue by presenting it in the Beijing Ten Conference**

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