MADE IN INDIA

A DOSSIER ON THE NEW REPRODUCTIVE TECHNOLOGIES

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A Dossier on the New Reproductive Technologies, April. 1989

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Lakshmi Lingam
April. 1989.

INTRODUCTION

Along with sustained protests againts unsafe pills, the IUDs (Intra-Uterine Devices), injectables and sex-determination tests, a new issue on the agenda of the Women's movement in India is to debate and take a stand on the New Reproductive Technologies (NRTs) and Genetic Engineering. Though seemingly 'new', these technologies have the same underlined ideology of abusing, disrespecting, manipulating and exploiting women as 'objects'. While the former reproductive technologies were anti-natal, -primarily used as measures of population control, the latter functions in a pro-natalist context where NRTs are introduced as "theraputic cure" for infertile women. However, this does not necessarily mean a pro-women technology, for it is set within the ideological structure of 'marriage','children within wedlock', the supremacy of biological'motherhood', and reinforces fertility as an important indicator of women's status. NRTs have greater scope than indicated by their limited introduction our country, and are likely to have serious implications for women.

The NRTs, with the 'Made in India' stamp and the indigenous twelve'test-tube babies' to its credit, are indicative of the host of other technologies that may well make their way into our country. One or the important means to organize resistance to these technologies is through sharing of the relevant information which is often concealed, and setting the debate in the print media. This dossier makes a modest attempt to examine the coverage that IVF (In-Vitro Fertilization), IVF-ET (In-Vitro Fertilization and Embryo Transfer), AID (Artificial Insemination of Donor Sperm), GIFT (Gamito-Intra-Fallopian Technique) etc., have received in the Indian Press.

Barring a few articles, the press, by and large, carries articles glorifying the success stories of these technologies. Journalists frequently raise eg. only two prominent queries, casually while reporting the birth of a 'test-tube' baby. 1) Regarding adoption 2) Regarding the effect of IVF techniques in a country with an already large population. The doctors' championing the cause' of infertile couples have tailor-made answers to these questions. Public opposition of NRTs from the women's perspective, is only just gaining ground. In contrast, the coverage that Amniocentesis and 'Female foeticide' have received is overwhelming, largely because of the Campaign against these test by women's groups, health activists and some political leaders. The debate is still on considering the fact that only the Maharashtra State has passed the Bill (Maharashtra Regulation of Prenatal Diagnostic Techniques Bill, 1988). The Forum against Sex Determination and Sex Preselection (FASDSP), an umbrella organization and an all India body, is continuing the struggle for Central Legislation. Therefore, some of the clippings on Amniocentesis, and campaign against it, have also been included in this dossier. A few clippings on and reports of the affect of Bhopal gas disaster on women's health, are also included.

IS IVF THE LAST BASTION OF 'HOPE' FOR INFERTILITY?

The IVF technique is considered to represent the last bastion of hope for many childless women. In a society where, a woman's status in the family and in society is determined largely in terms of her procreative role, a barren woman is dubbed as a 'witch', and her participation in any auspicious rituals seen as a bad omen. By producing a child, the credentials of the man, and more so of the women, are established in society. It is in this context that IVF and other reproductive technologies, which are often referred to as 'treatment' for sterility by the doctors and a 'God-

sent' boon in the form of technology by the childless couple, receive a patriarchal sanction and respectability. IVF-ET, AID, AIM and a host of other technologies are claimed to salvage several broken marriages by providing a ray of hope to the couple who could have their 'own' children. Though adoption of a child could be a logical solution to childless couples, it is not appreciated by the family and the couple, who nurture the notion that the child carries the genes of a rapist and is, therefore, a tainted/unwanted child. In patrilineal systems, blood bond is extremely important for rituals and property transfer. With the introduction of the new reproductive technologies, the acceptance of adoption takes a further back seat. An article (Gift-wrapped babies arrive. Indian Express, Bombay, 30 June, 1989) laments that:

> "the Indian ethos is certainly not geared towards encouraging adoption. Almost all the major religions in this country are clear that the one basic reason for marriage is procreation. Procreation at all costs. Hence, if a man can discard one wife to marry another because the first wife was unable to bear children, the scene is set for in-vitro fertilisation, donor artificial insemination and surrogate motherhood".

When asked the question why, since there are so many children in adoption homes crying for foster care, should new reproductive technologies be promoted. Dr. Indira Hindujs is reported (Professor of Gynaecology & Obstetrics, Seth G. S. Medical College & KEM Hospital) to have replied as follows:

> "People who say this do not realise the choice should be the couple's. If you cannot adopt a child you have no business to tell another to do so. It is, no doubt, a noble act to adopt somebody else's baby. But why should we expect only childless couples to shoulder the responsibility of adopting? It is the combined duty of all of us and the nation to look after parentless children. Procreation is everybody's right and, as a medical person, I am offering my patients a treatment. They must have the option to have a baby of their own if they desire to have one".

(Emphasis added). ("Residue of Hope", The Illustrated Weekly of India, Bombay, October 1988). This statement shows a confusion of arguments: (1) stating that adoption need not be the responsibility of childless couples alone - which is logical; and (2) viewing sterility as an illness or medical problem which requires treatment - this is questionable and disagreeable. The basic premise is that there is a demand for the new reproductive technologies and, therefore, it has to be supplied to the 'needy'. This argument basically disguises the fact that (1) public funding is diverted from far more vital and important areas of medical research towards bio-medical research; (2) research ('supply') in these areas proceeds the 'demand', and consequently a 'demand', is created where the 'consumers' (women) are also the 'raw material' for the experimentation; (3) the constant state of anxiety, the serious pain and imbalance that hormonal infections and several other tests create, and the trauma of failure, fail to get highlighted. Therefore, the terms 'option' or 'choice' are debatable.

ADOPTION AND STRINGENT PERSONAL LAWS

The laws of adoption in India are different according to independent personal laws which discourage adoption of a child. Adoption of a child is not alien to the Hindu religion, and the

Hindu law secures equally the interests of the parent and child. Adopting under the Wards and Guardianship Act, which is open to all communities, does not ensure rights of inheritance or succession to the child nor security of parental status for the adoptive parents. In three separate occasions, attempts were made to pass the Indian Adoption Act, but failed due to the objections from the minority communities on the basis of their personal laws. The personal laws reinforce biological motherhood and do not support adoption. At present, many of the Indian children are being sent to foreign couples for adoption. Perhaps, women's groups in India should seek to demand a Uniform Adoption Code also! So far little has been reported about the position for various religious groups regarding IVF, AID and other technologies in the Press. This is of considerable interest, because most of the religious communities consider masturbation immoral. However, for the purposes of IVF, it seems indispensable to procure the husband's (man's) semen through 'self-stimulation', or outside of the normal sexual etc. This is an interesting deadlock.

IVF AND THE POPULATION 'PROBLEM'

The other apprehension frequently voiced by newspapers is about the 'population problem' to which the 'test-tube babies' would add. As a counter argument, it is frequently said that the success rate of these technologies is not significant enough to make much difference to statistics. Though this argument might seem simple and straight forward, the fact is that IVF is one among a host of technologies which gears itself to provide clues to controlling the population to get official patronage.

In one of the interviews with Dr. Anand Kumar, the Director of the Institute for Research in Reproduction (IRR), Bombay, is reported to having said in one of the interviews:

> "The IVF-ER technique has now provided a major and justifiable reason to investigate infertile couples thoroughly and thus has offered many opportunities to identify and study factors contributing to infertility. And, an understanding of these factors may provide clues as to how to induce infertility in fertile couples as a means of family planning. There are a number of lessons to be learnt from Nature's Workshop which has created the infertile couples. (Emphasis added) (To Harsha: Best wishes for a normal life, The Times of India, Bombay, 13 August 1987).

Further, in Dr. Anand Kumar's words:

> "Medical research in India is, to a large extent, supported by the public exchequer and the fruits of such a public-fund supported reserach must be available to all segments of the population including those who are extremely fertile as well as those who are infertile".

Dr. Hinduja similarly states very strongly,

> "Why stop the birth process, why not let people die, instead of saving them by performing coronary bypass or kidney transplants of removing cancer tumours? Infertile couples have all the right to decide for themselves, to decide to undergo treatment as long

as they want". (Emphasis added) (To Harsha: Best wishes for a normal life, The Times of India, 13 August 1987).

These statements further point to the complex hidden politics of reproduction which assert that the State has an obligation to provide IVF services because childless couples have a 'right' to bear children. The right to childbirth as a demand makes sense only against a Government which has outlawed childbirth, not as a call to reverse physical infertility. Rights and needs are used to attack and defend technical intervention in the biological process of reproduction. The demands of women for abortion are labelled selfish or even anti-social (in some countries) by some, while the IVF technologies are justified as recognition of their 'need' to have children. The basic truth is, research priorities are set according to the 'needs' of the scientists to pursuit existing frontier research, and the infertile couple's 'right' is an excuse. Further, feminist phrases like 'choice' and 'control' are subverted to restructure control on women's bodies.

An article to commemorate the International Women's Day, ("Whose life is it anyway?" The Times of India, Bombay, Sunday Review, 5 March 1989) focuses on the reproduction revolution. It laments:

> "Unfortunately, the discussion on the implications of reproductive and genetic engineering has been centred more round its potential abuse for eugenic breeding and scarcely on its deleterious effects on women and their "objectification" for development of these new technologies. Though the NRT is projected as a therapy and "new hope for infertile women", in reality, they remain powerful means of social control of women and their procreative capacities..... So whom do these new technologies really serve?"

SUBSIDISED IVF - WHO BENEFITS?

The provision of IVF facilities in Government run hospitals amounts to providing these 'facilities' at subsidised rates. One must ask who benefits from this. It is interesting to observe how medical scientists make a case for the need to provide a technique like IVF in public hospitals by, on the one hand highlighting the stigma attached to infertility and, on making references to the costs that infertile couples incur by going to private clinics or abroad. It is obvious that these couples belong to the higher economic groups. Dr. Hinduja writes:

> "Right now private clinics charge about Rs. 35,000 per cycle of treatment. If at the end of the treatment the woman fails to conceive, the money is as good as lost. It takes on an average four to five cycles for a successful conception. Besides those seeking treatment at private clinics there are a few hundred couples that go abroad every year for IVF and spend $ 7,000 to $ 10,000 on the treatment alone. If the same were done at a public hospital the cost per cycle works out to Rs. 10,000". (emphasis added.)

Considering that, on an average, four to five cycles are required for a successful conception, even a subsidised rate would work out to Rs. 40,000 to Rs. 50,000 excluding the cost the couple incurs for travel, stay etc. Isn't it necessary to question who benefits by this subsidization of IVF, by public hospitals. While, for the purposes of the initial experimentation, couples from a lower economic background were preferred, the profile of the 'beneficiaries' might soon change.

IS IT SCIENTIFIC PROGRESS OR PROGRESSIVE CONTROL?

In a recent article in one of the newspapers. Dr. Hinduja had written all about the benefits of IVF. She notes:

> "Looking far into the future we might boldly predict that with IVF, it will even be possible to treat faulty DNA in embryos that would lead to malformation. May be you could even have babies to order if that is desirable!"

She makes a case for IVF within a patriarchal society and social milieu where motherhood is esteemed and childlessness is a tormenting experience. In her words,:

> "The family is worried that there will be no one to continue the family name or to perform obsequies for them. These are all very real fears, until such fears are dispelled, and that will not come about soon or easily, IVF offers hope and relief to the affected persons. IVF should be looked upon as a medical treatment. And besides IVF is part of development of science; whether one wants it or not science will progress". (emphasis added.)

Vimal Balasubrahmanyam ("Blue Booties or Pink?". Sunday Observer. Bombay, 17 May, 1987) argues -

> 'Today in our society there is a strong belief in 'science for science's sake' and the myth of value - free technology. Even the media which has generally taken a principled stand on female foeticide has published .reports on the newer technologies in a 'neutral' manner, without analysing the implications of such methods being introduced in a country like ours". She further notes, "(F)emicide cannot be fought adequately unless we also raise questions about the priorities in science and technology and the areas of research for which scarce funds should be allocated".

Another article provides a similar viewpoint and suggests the need to eliminate secrecy in further research on these techniques and to create a greater understanding of the role of the three protagonists in the reproductive drama - the doctor, the male and the female partners.

> "It is but natural for researchers to adhere closely to the credo of 'Science for Science's sake' and shrug off all responsibility for their discoveries (it's the old argument: with nuclear physics came the atom bomb, with electricity came the electric chair, with aviation came bombers..... with genetic engineering comes human cloning)". ("Gift-wrapped babies", Indian Express, Bombay, 30 June, 1987).

One article concludes by saying:

> "ASLV rockets in a country where millions die of starvation and test tube babies for people who believe a barren woman is a witch." ("Residue of Hope", The Illustrated Weekly of India, Bombay, 9 October, 1988).

In response to articles by Dr. Hinduja and Dr. Anuja Dokras, Dr. Malini Karkal sorts out the percent of couples who are infertile as 0.6 percent of the total couples (not just infertile couples) in whose cases IVF can be thought of as a "cure" for their infertility. However, she questions the experts on whether they should invest their energies -

> "in promoting a value that sees childnessness not as a deficiency or something to be ashamed of, or in promoting expensive and sophisticated technology to those who are affected by tuberculosis and other infections since the prevailing patriarchal values assign mothering as the most important and perhaps the only role for women?" ("Values or Technology?", The Times of India, Bombay, 26 Feb, 1989).

While another newsreader challenged her stand, the important aspect about this letter which subscribes to the 'technology, a panacea' bandwagon, runs as follows:

> "A lot of effort is being put in by IVF technologists abroad. Why then should India lag behind? Perhaps tomorrow India could make a breakthrough in these fields. In such a large population could we not have even one noble laureate? But unfortunately it has been a tradition in our country to criticise anybody who achieves success in a creative field through hardwork, persistence and dedication." (Emphasis added) (Times of India, Bombay, 12 March, 1989).

A nobel laureate: At whose expense? Predominantly, the inherent assumption in supporting NRTs is that it is part and parcel of scientific 'progress' and 'development' which should not be opposed. This argument disregards the fact that, in unequal structural contexts technology is not value-neutral. It becomes a powerful symbol which furthers oppression and deprivation of the poor and women.

Reproductive technology is heralded as having a choice-giving capacity. Though we support women's right to choose in all areas of life, it is rightly asked by feminist groups "Where does the question of choice arise in a choiceless world?" Where women are taught to subordinate their interests to those of men, where women attain a status only by marriage and by giving birth to children (preferably sons), where they largely bear the burden of cooking, collecting firewood, fetching water, bearing and rearing children, tending cattle, eat last and the least, have lesser access to health services, but are 'targets' of population control. New reproductive technologies reinforce the maternal role and undermine the role of women as producer/worker. Further, why should 'biological' motherhood, a patriarchal value, be reinforced by modern technologies?

SEX-DETERMINATION TEST: DEBATES AND ISSUES

The present section consists of a selective presentation of newspaper clippings and magazine articles on the debate and issues involved in the misuse of aminocentesis.

Five years of consistent campaigning by women's groups and health activists has brought about the Maharashtra legislation, but the campaign for a Central Government Legislation banning pre-natal sex-determination tests is still current. ("Centre urged to act on sex test issue". The Times of India, Bombay, 17 Feb. 1989). An uncalled for statement made by Mr. Vasant

Sathe, Union Minister for Energy, ridiculing the Maharashtra legislation in a public meeting, has rekindled public attention. He asked, while speaking at a function,

> "What is the justification for banning sex tests when abortions are allowed?" According to him, implementation of the law against amniocentesis test was impractical. "If men outnumbered women, the latter would be in much demand", he remarked. ("Sathe supports amniocentsis". The Times of India, Bombay, 12 Feb, 1989).

The demand and supply theory with respect to the number of women and their status has been extensively argued out through several articles (not all are included here). Research studies on societies with adverse female sex ratios have indicated the presence of customs like polyandry, abduction and purchase of women. The adverse sex ratios, it is strongly felt, will increase the incidence of rape, prostitution and violence on women. (Female Foeticide, Gentleman, November, 1987).

The detection of the sex of the foetus through amniocentesis tests and aborting the foetus selectively if it was declared to be female with the Medical Termination of Pregnancy Act, is the procedure that is followed. Doctors and private clinics blatantly advertised that 'you could choose the sex of your child'. ("Born to die", The Indian Post, Bombay, 7 October, 1988). The first to capitalise on the technique of womb-tapping was Dr. P. S. Bhandari who advertised his first sex-determination clinic in Amritsar. "Invest Rs. 500 now and save Rs. 50,000 later". A blatant message that abortion of a female child could save parents the expenditure on dowry. A ready market in dowry-prone societies! ('Boy or Girl?', Sunday, Bombay, 24-30 January, 1988. These medical practitioners conceal the fact that these tests 'detect' but do not 'determine' the sex of the foetus, therefore leading to multiple abortions and putting the women's health at stake.

Vibhuti Patel asks:

> "How many abortions can a women go through (between the 16th and 18th week) without jeopardising her health?..... Since the test of just determining the gender is a very simple one, ill-qualified people can also set up clinics. The dangers to the woman's and the baby's health in doing this are many. If the conditions are unhygienic, as they are likely to be, permanent harm can be done to the mother and the baby. As it is, amniocentesis can cause premature delivery, respiratory problems and also leave puncture marks on the baby. If done unhygienically, it can cause sepsis in the reproductive tract". (Amniocentesis : For and Against, Gentlemen, November, 1987).

Mahila Dakshita Samiti, a Bombay based women's organisation filed a writ petition in the Bombay High Court in October 1986, after 21 years-old Sunita Chaturvedi, mother of two girls, died as a result of an abortion that followed a sex-determination test. The victim's husband and two doctors are respondents ('Ban Female Foeticide', Femina, (Bombay) 23 December, 1986 - 7 January, 1987).

The Maharashtra Regulation of Use of Pre-Natal Diagnostic Techniques Bill, 1988, which is a progressive piece of legislation, nevertheless can fall short of its stated objectives. ('Doublespeak

on sex tests' The Indian Post, 29 April 1988, Bombay) ('Campaign against sex test pays', The Indian Post, 15 April, 1988, Bombay).

The debate for and against a Central Government ban on sex-determination tests is still going on, with the major arguments touching on some of the following points:

Is the test a 'choice' for a woman? Should the discrimination of female foetuses and women be considered as a 'choice' to be exercised? Is the availability of the test an instrument or not to enable couples to plan their family size, considering the fact that the Government actively promotes a two - child norm? How can legislations function in a society where the natural values are pro-male and anti-female? Can the feminists be 'pro-abortion' and 'anti-selective abortion?'

> 'One cannot cure social prejudices merely by legislation'. 'Instead of bringing more unwanted girls into the world, surely it would be better to improve the lives and status of those who are born'. ('Ban on Sex Test Clinics Unwise'. The Times of India, Bombay, 9 December, 1988). The response to this was..... "Yes, we are aware of this. But, at the same time, legislation banning S. D. Tests would definitely take away respectability attached to this scientific advancements aggressively advocated by our doctors with crude, anti-women advertisements.....". The article systematically argues several propositions and biases. ('Sex Test Endanger Women's Right', The Times Of India, Bombay, 14 January, 1989).

Another retort to pro-amniocentesis is an article which runs as follows:

> "Following her central argument that those who have no bright future to look forward to may as well not be allowed to be born, will she permit a logical extension of her arguments to advocate mass sterilization of all the poor of the world? Will she advocate genetic engineering and selective breeding in the name of procreation of only what is considered best and most wanted, and the elimination of those unwanted? She further asks very morally, is female infanticide preferable to female foeticide, as if at least one of these we are bound to sanction and accept! By her logic not only are women to bear the brunt of the country's family planning programmes, but the women among the poor must doubly bear it so, because they have even less to offer their female child. How is that different from the Jews having had to bear the weight of Nazi Germany's social and political crisis?" ('Female Foeticide No Democratic Right', The Times of India, Bombay, 26 December, 1988).

IS IT MUCH ADO OVER NOTHING?

The excerpts of the debate over the amniocentesis test expounded in the earlier section, expose the logical lengths it can be extended, to justify the elimination of women or 'female foeticide'. It is the blatant unconstitutional and discriminatory attitude against women held by 'technodocs' disregarding medical ethics; and using technologies which are principally meant for the detection of genetic disorders etc. for detecting the sex of the foetus, and further, misusing the liberal abortion laws of the country, that we challenge. While on the one hand, several grass root voluntary organizations are working for the empowerment of women, on the other hand, we

have a slow importing of NRTs which are whipping up strong patriarchal anti-women attitudes by predominantly viewing women as ‘mothers’ and as ‘objects’ for experimentation.

Why is it these new reproductive technologies like amniocentesis and ultrasonography did not really go to the rescue of pregnant women who were exposed to MIC during the worst industrial disaster - the Bhopal Gas Tragedy? (‘Abortion rate among gas victims up’, The Daily, Bombay, 21 November, 1987). (‘Effect of Bhopal Gas Leak on Women’s Reproductive Health’, Medico Friend Circle Nipani, 1987). Whose interests do these technologies serve? Questioning the NRTs in this line might appear as viewing these technologies as primarily neutral, and the problems resting merely with the distribution aspects of the social system. While the distribution aspects cannot be underplayed, it is essestial to focus on the ideologies that these technologies sustain.

Not much can be written about what are the future ramifications of the use of NRTs in the Indian context based purely on press reporting. The basic intention of this dossier is to unmask and challenge the values of ‘harnessing’, ‘manipulating’, ‘selecting’, ‘improving the stock’, ‘exploiting’ etc., at the heart of these technologies which are now being extended to human reproduction also.

CLIPPINGS OF ARTICLES ON IVF & OTHER TECHNIQUES

WHOSE LIFE IS IT ANYWAY?

It is no exaggeration to say that reproduction has become increasingly medicalised. Questionable technologies and cures have been callously thrust on women, in the name of birth control and hi-tech treatment.
To commemorate International Women's Day, March 8, Saroj Iyer focuses on the reproduction revolution.

A 28-YEAR-OLD woman was recently referred to a gynaecologist for treatment of secondary amenorrhoea (delayed menstruation). As she had been unable to conceive, the doctor immediately recommended in-viiro fertilisation (IVF). instead of more simple treatment to cure secondary amenorrhoea. which would have led to conception.

Last October, a cow in Delhi, implanted with an embryo fertilised in the US, gave birth to a calf, which was hailed as a breakthrough in reproductive technology. Few questioned the need for such an experiment and its far-reaching implications, including for human beings.

Appalled by the cross breeding of different species of animals, the UK government has reportedly passed a law prohibiting such experiments. Internationally. committees and task forces have been formed to examine the repercussions of the uses of IVF in women and to propose policies and legislation restricting its application.

These incidents clearly indicate the extent and arbitrary use of medical technology, IVF in this case by scientists and researchers who ultimately control the power to make vital decisions for the vast majority.

It is no exaggeration to say that reproduction has become increasingly medicalised. Questionable technologies and cures have been callously thrust on women, in the name of birth control and hi-tech treatment. The '80s in India witnessed fierce protests against harmful contraceptives and sex determination tests leading to female foeticide. Now with the "indigenous production" of test-tube babies the revolution in reproduction has come to stay.

IVF, touted as the conquest of female infertility, is one more instance of how medical technologies affect women. Since the '70s there 1879 been worldwide protests against their adverse impact on women. After an international conference in the US in 1979 which discussed the effects of reproductive technologies and how to resist them. subsequent conferences have increasingly highlighted how the new reproductive technology (NRT) has been an instrument of ideological, psychological and physical control of women, developed and used not in their interests but in the interests of the researchers' and medical professionals.

Concerned at the misuse and abuse of women for scientific development, various organisations in Bombay will come together on March 12 as part of the International Women's Day celebrations, to discuss the implications of reproductive and genetic engineering, especially in India. The women's groups will focus on the social, legal, ethical and economic impact of these technologies and examine the hidden inter-dependencies between the western countries and the third world.

Asked why reproductive and genetic engineering were favoured for discussion over other burning issues, Chayanika Shah of the Forum Against Oppression of Women, which is organising the workshop, says, "The NRT is as vital an issue as any other today and we need to take it up urgently before it is too late. The rampant sex determination tests, indeed a form of NRT, are only an indication of what is to come. Reproductive engineering is also aimed at

women. It is, therefore crucial to oppose such destructive technology. Hence the decision to debate it.

"Technology," she continues. once developed and tested in the West does not take long to be imported here. Its application is direct as it doesn't require further testing. For instance, the IVF. Once introduced, little can be done to slop its widespread use.

The city meeting is also . a prelude to an international conference on population control, reproductive technology and genetic engineering to be organised by FINRRAGE (Feminist International Network of Resistance to Reproductive and Genetic Engineering) in Dhaka later this month. FINRRAGE is a global network of women which endeavours to identify the common origin of different technologies aimed at women and link the contradictory yet connected pro and anti-fertility methods to control women's procreative capacity.

While modern contraceptive technology is closely linked to the myth of population "explosion" in the third world and its reduction. in the developed countries the problem is one of dwindling numbers. Consequently, third world women are subjected to coercive population control policies and dumped with harmful contraceptives. "First world women on the other hand, are the targets of various reproductive technologies and practices of biogenetic engineering," according to Farida Akhtar, coordinator of FINRRAGE. "These include abuse of women through new technologies such as IVF,embryo transfer, sex determination and pre-selectton tests and surrogate motherhood." she adds.

Akhtar also points out that the NRT offered to infertile women, is not confined for use to the infertile alone. Slowly, it is being extended to fertile women too.

This is indeed true as witnessed from the pattern of application of NRT up to now, The initial indications for its use are gradually being expanded from a small section to include a large population as seen in Caesarean sections, sono graphies, amniocentesis and genetic testing and counseling.

Dr Malini Karkal, a population specialist, confirms this fear when she says that IVF, originally proposed for women with blocked fallopian tubes, is now being progressively used on fertile women too. The interest of medical personnel and researchers lies less in people's welfare and more in gaining power.

Says Meera Savara, a health activist, "Where scientific input interferes with the basic biological and natural processes of life, the resulting dangers can be beyond one's control. As of now there is little information about the effects of high doses of hormones on the embryo. Test-tube babies born so far are yet to reach adulthood. So the effects on their health and reproduction are still to be known".

As Shah rightly pointed out, what has been kept a closely guarded secret is the number of failures behind the 12 successful IVF births claimed. How many limes does a woman undergo IVF for one successful pregnancy and live baby? What is the ratio of the total number of women who start the IVF programme to actual live births? In the US it was estimated to be about seven per cent. We need reliable statistics on these.

Unfortunately, the discussion on the implications of reproductive and genetic engineering has been centred more round its potential abuse for eugenic breeding and scarcely on its deleterious effects on women and their "objectification" for development of these new technologies. Though the NRT is projected as a therapy and "new hope for infertile women", in reality, they remain powerful means of social control of women and their procreative capacities. For most women, it is a choice between living with the pain of the stigma and rejection of childlessness and

subjugation to a different pain - the physical and psychological pain of the IVF procedure, with its attendant high risk of failure.

So whom do these new technologies really serve?

Campaign

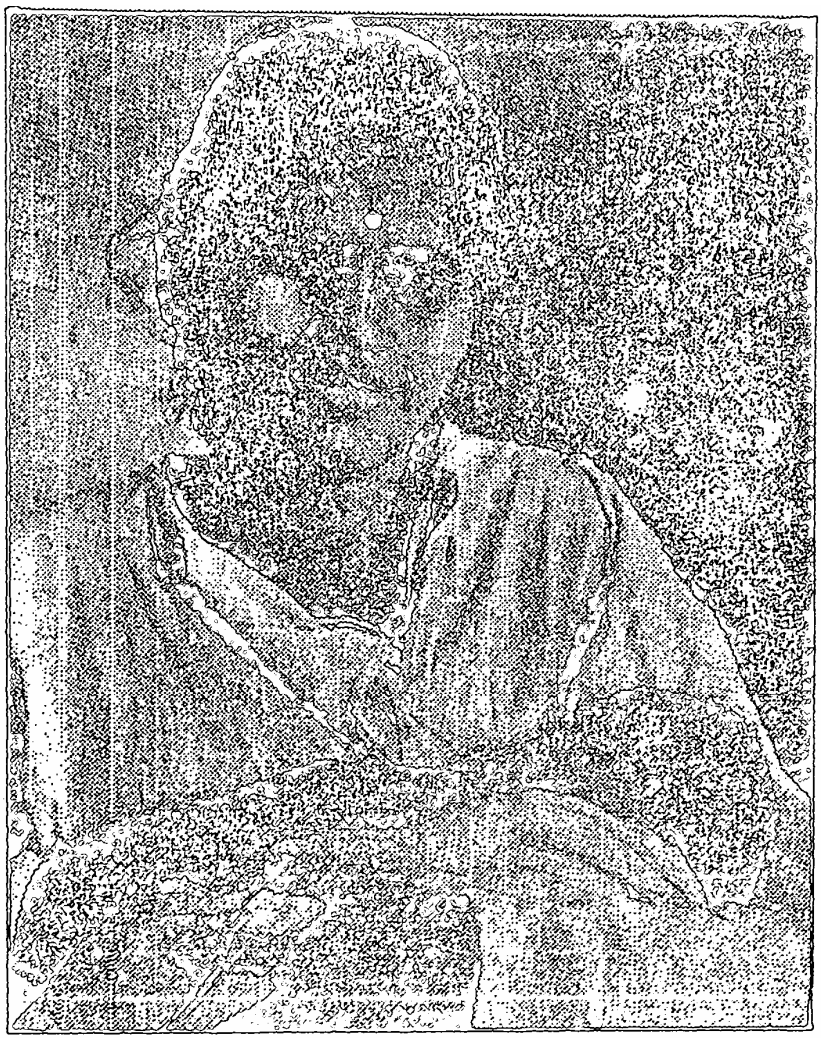
While modern contraceptive technology is closely linked to the myth of population "explosion" in the third world and its reduction, in the developed countries the problem is one of dwindling numbers. Consequently third world women are subjected to coercive population control policies and dumped with harmful contraceptives.

VALUES OR TECHONOLOGY?

In promoting IVF, technologists exploit the victims of a society that emphasises mothering as the most important and perhaps the only role for women, writes Dr Malini Karkal.

Successes achieved by medical persons in fertility technology receive enormous publicity. The personal and professional glorification that goes with the so-called achievement inhibits these technologists from revealing to the public the extremely large proportion of failure, the serious physical discomfiture and quite often frustrations that those women suffer who offer themselves for these experiments. Technologists dole out untruths and half-truths to the guilible.

To say that in-vitro fertilisation (IVF) has opened several avenues for treatment of infertile couples and has now become a simple OPD procedure, which women opt for repeatedly, as Dr Anuja Dokras, currently doing research on IVF in Oxford writes (Sunday Review, January 22), is a good example of how these technologists exploit the victims of a society that emphasises mothering as the most important, and perhaps the only role for women.



"MOTHERHOOD ABOVE ALL": Is an expensive technology like IVF a priority in a country like ours?

In the absence of data we may accept the report from the 1981 census which says that 6.1 percent of married women aged 50 or more, i.e. those who have completed childbearing, are childless. This includes women whose marriages did not last long enough, those who conceived but did not deliver live births as well as those whose children were not alive at the time of data collection. In other words 6.1 per cent in an overestimate of the infertile couples in India. Experts working on infertility in India as well as in other countries, report that 50percent of the couples who come to them, when assured they are normal after all tests are done, find no difficulty in conceiving. This confirms that like all other human body functions, psychology plays an important role in the functioning of the reproductive system.

Of the remaining 3 per cent couples, 40 per cent of men are found to have a problem. Among the women, at best it is only 30 per cent in whose cases tubal block (for which the IVF is advised as treatment) is the cause of infertility.

Thus, it is 0.6 per cent of the total couples (not just infertile couples) in whose cases IVF can be thought of as a "cure" for their infertility. It also must be mentioned that international experts working in well-equipped laboratories and on basically much healthier women report that the success rate of IVF is 5 to 7 per cent.

So if Dr Dokras comes to India after she has acquired the expertise in Oxford to treat infertility cases her success rate will be 5 to 7 per cent of the 0.6 per cent of our couples. Dr Hinduja, the Indian pioneer in IVF, who reports that "now there are 12 babies" that she has produced through IVF, says that implantation is not successful at the first try. It takes on an average four to five cycles for a successful conception. Obviously the unsuccessful ones try more often that that. Dr Hinduja also reports that at public-funded places like where she works, the cost is Rs 10,000 per cycle. Private practitioners, according to Dr Hinduja, charge Rs 35,000 per cycle. One wonders why this difference of Rs 25,000 which perhaps explains the enthusiasm of the technologists in promoting such techniques.

India is known to be producing over 60 per cent of low birth weight babies. They have a poor chance of growing into physically and mentally healthy adults. Anaemia, infections and debility in the mothers need to be eradicated for which doctors would have to invest far greater efforts in educating people. Both Dr Hinduja and Dr Dokras are aware of the poor health of our women and the problems they face. Dr Hinduja says. "In our country tuberculosis is a major cause of infertility by causing irreparable blockage of the fallopian tubes." According to Dr Dokras, "With infections such as tuberculosis and gonorrhoea rampant in out country, pathologies of the fallopian tubes are not uncommon. These problems have been overlooked due to the population explosion. If more hospitals were to introduce IVF units a definite therapeutic option would be available in our country."

Tuberculosis and other infections are incapacitating a large section of our population. A doctor suggesting a diversion of huge investments in treating infertility is not only being cruel to the public but is also doing injustice to his professional learning. Dr Hinduja in answer to those who suggest adoption as a solution for childlessness, says that "those who accept adoption come from that strata of society which no longer looks upon Childlessness as a deficiency of with shame."

Where should the professionally qualified invest their energies? In promoting a value that sees childlessness not as a deficiency or something to be ashamed of, or in promoting expensive and sophisticated technology to those who are affected by tuberculosis and other infections since the prevailing patriarchal values assign mothering as the most important and perhaps the only role for women?

Incidentally, Dr Shirodkar, decades ago, treated women with tubal blocks and his technique went down in textbooks as the “Shirodkar technique”. Also, there are many women, even in India, whose tubal blocks are removed through micro-surgery and other medical procedures. None of these scientists have been in or sought the media limelight.

TECHNOLOGY FOR INDIA

This refers to the article by Dr Malini Karkal "Values or technology?" (February 26).

I would like to bring to the notice of Dr Karkal that she has seen only the darker side. of a positive scientific development. Firstly, her statement of infertility statistics in India are incorrect because no infertility census report are available in India. Also, all gynaecological textbooks report that the type of infertility where both partners are found to be normal, which in medical language is idiopathic or unexplained infertility is only 10 to 15' per cent of total infertility cases. Dr Karkal claims that 50 per cent of the couples coming for treatment suffer from this infertility.

Secondly, she has emphasised that the achievement of technologists inhibit them from revealing to the public the large proportion of failure in treatments like 1VF. Further down in her article she refutes her own statement by stating that experts like Dr Dokras and the Indian pioneer of IVF, Dr Indira Hinduja, have already disclosed that the success rate of IVF is 5 to 7 per cent. Is she not putting two contradictory statements in one article?

As far as the comment on the cost factor involved, let me bring it to her notice that a cardiac bypass, kidney transplant, laser surgery, dialysis are treatments which are also given at public hospitals at a very nominal rate. The same procedures would cost a fortune in any private hospital, the reason being that the cost of equipment for public hospitals is less than half of what it would cost a private hospital.

Dr Karkal is possibly not aware of the easy availability of treatment for tuberculosis and other infectious diseases she has mentioned. All over India the government provides free treatment for

TB. But according to Dr Karkal an unfortunate woman who has a fallopian tubes damage due to TB should not be treated for infertility. Does Dr Karkal realiss that two-thirds of the Indian female population is uneducated and any woman educated or uneducated feels incomplete if childless? Especially in the uneducated masses these women are looked down upon. Also, let us not forget that our family planning advertisements which are seen by people in remote areas on TV and elsewhere, emphasise the presence of at least one child. So tell me, if there is some ray of hope for even a small percentage of infertile couples through IVF, should they not avail of the benefits of such a technological development available in India?

The future of IVF technology is not only in the management of infertility but in the development of newer contraceptives, early diagnosis and prevention of birth defects at the embryo stage. A lot of effort is being put in by IVF technologists abroad. Why then should India lag behind? Perhaps tomorrow India could make a breakthrough in these fields. In such a large population could we not have even one noble laureate? But unfortunately it has been a tradition in our country to criticise anybody who achieves success in a creative field through hard work, persistence and dedication.

ALKA PANDYA
Bombay

NEW SEX TEST UNDER WAY

HYDERABAD, Feb 12(UNI) Indian scientists are developing a new technique of DNA fingerprinting that could help parents choose the sex of their child.

Laiji Singh and his team at the Centre for Cellular and Molecular Biology (CCMB) here are perfecting the technique known as the BKM method.

So far. only one such technique has been developed by Alec Beffreys of Britain. This technique is in use in that country and since it is patented, it is not available for others.

The new technique is based on a discovery made at CCMB. about those parts of human genetic material. DNA, that are involved in making a male a male and a female a female.

These parts while retaining certain common elements which make them responsible for sex determination. Have also regions which vary from individual to individual.

These differences can be visualised through sophisticated techniques of molecular biology - as unique bands on an X-ray film.

Each individual is unique as his genetic material is unique.

At CCMB, work is underway to develop the new technique for identification of individual human beings through genetic finger-printing - making use of the genetic uniqueness of an individual.

Major applications of the Technique apart from sex determination, are for establishing paternity and family relationship.

In the field of forensic science. where extremely small samples of blood, semen, hair roots left at the scene of crime may be analysed by DNA fingerprinting and compared with those from a person suspected of committing the crime.

The mechanism by which the sex of an individual is determined. has been a subject of scientific speculation since the time of Aristotle.

Until 1900. if was generally thought that the sex of a hurnai embryo is decided by environmental factors, such as maternal nutrition.

Unfortunately, some women can never conceive, at least not in the normal way either because there is something wrong with her husband or with her. Charltons and quacks in rural areas make a neat pile by selling-'guaranteed remedies' to such couples. But all these only serve to increase the woman's mental agony; Infertility can indeed be an awful stigma.

Certain methods of treatment, including minor and major surgery, may work in some cases of infertility but where a woman's fallopian tubes -- the tubes that carries the egg cell to the womb -- are blocked or where the husband's sperm count is low, in vitro fertilisation (IVF), or what is called test tube baby, is the solution. In such cases too other methods have been (and are being) tried out. For example, the husband's semen is collected, concentrated and can also be stored, and his wife is artificially inseminated with the concentrated sperm at time most suited for conception.

Fallopian tube prosthetics have been tried out but these have failed as the conditions inside the natural tube are difficult to re-create artificially. Teflon tubes and donor tubes have been tried; there is no other tube in the body which is akin to the fallopian tube and so tubal transplants have all failed.

The environment in the fallopian tube. where natural fertilisation takes place, is what the setting should be like for in vitro Fertilisation. The chemical environment is also as important - the type of fluids and their the exact amount.

In brief. IVF goes tike this: the woman is given medicines to induce superovulation, that is, make several follicles mature at the same time. (In this, IVF differs from the natural process where only one follicle matures at each cycle.) Clomiphine citrate tablets and pitutary gonadotropin injections or a combination of the two hormonal medicines are used. Both are quite expensive. Blood tests and ultrasound tests are used to decide the dosage and the duration of treatment with the hormones.

After this treatment, by monitoring blood hormone levels everyday and the follicular size, we can see if the follicles have matured. One egg cell grows within each follicle. When the follicles have reached maturity as many as are available are picked up (sucked out) with the help of a laparoscope and ultrasound.

Each egg is placed in a separate container, a petri dish, with ten thousand to fifty thousand sperms. The petri dishes are incubated at 37 degrees Celsuis which is the normal temperature of the human body.

And now the eggs have to be observed microscopically to see if they have been fertilised. The presence of two pronuclei seen as two distinct spots means that fertilisation has been successful. After the pronuclei are seen, each egg is grown for 24 hours (in the incubator). By the end of this period, the fertilised egg has usually divided to form an embryo of four to eight cells. This stage is the right time for putting it back into the mother's body for implantation.

It one embryo is used for implantation, the chances of success is about 10 per cent. By using up to four embryos the success rate can be pushed to about 25 to 35 per cent. More than four embryos are not used even if they can be had as then the chances of multiple pregnancies increases; multiple pregnancies are high risk pregnancies. Even with a maximum of four embryos used the chances of twinning in IVF cases

TEST TUBE BABIES: WHAT NEXT?

The idea of making test tube babies, that is in vitro fertilisation, dates back to 1878. That an embryo could survive outside its mother's body was demonstrated 12 years later. The first test tube creature to be born was a rabbit (of course!) in 1934. And the first human test tube baby was born, after nearly a decade-and-a half of intensive work, in 1978. Now there are over 5,000 test tube babies in the world -proof enough of the success of this technique. And if one cares to look beyond one's nose into IVF technology, says Indira Hinduja, one can see scores of new benefits coming out of it.

is about five per cent more than in the normal population.

IVF cases are considered precious and high risk cases. The expectant mothers are hospitalised for the first two months so that they can be under constant observation. Later on they are called for follow-ups at two week intervals and are hospitalised even at the slightest sign of distress. This is absolutely essential as the chances of abortion in IVF cases are 25 to 30 per cent during the first three months of pregnancy; this is slightly higher than in the normal population.

There are also some modifications of IVF. There is the GIFT technique - gamete intrafallopian transfer where instead of incubating the egg with sperms they. are is injected into the fallopian tube immediately. PROST is pronucleus stage embryo transfer; and micro-fertilisation, which at present is done only in a few centres around the world, involves picking up one egg and micro-injecting a sperm into it.

All these techniques help women to conceive. They also give researchers opportunities to study in detail the fertilisation processes. For example, what changes occur in the sperm prior to fertilisation or why some sperms do not penetrate the egg it understood, can explain some crucial aspects of male fertility and help to develop methods to improve treatment of infertility and control fertility. Male contraception methods can also be devised by study of male gametes. This can help develop methods of creating low sperm count, infertile sperm, unfavourable conditions for fertilisation, antibodies to sperm, etc.

The details of why some embryos develop into a vesicular mole and not a fetus may help in the understanding of some kinds of cancers (choriocarcionoma). The study of aborted conceptus may explain why malformations arise, how they can be diagnosed and whether they can be prevented.

Microbiopsys can detect malformations and their severity. As this test can be done soon after fertilisation care can be taken to implant only healthy normal embryos. Thus couples who fear they might transmit a genetic disease to their offspring could, in future, opt for this technique to be on .the safe side. In the normal pregnancies malformations and genetic diseases can be detected only after the seventh week by chorionic villus tests - that is by studying the small finger-like processes that grow on the outside wall of the developing embryo during the first few weeks; and by amniocentesis, a method where fluid surrounding the fetus is withdrawn through a syringe and the cells the fetus sheds into this fluid are cultured and analysed.

Nirmil ('the created one') is Dr Hinduja's third test tube baby born over a year ago. "Now there are 12" she says proudly

Frozen embryos can be stored and used when the parents are better prepared to have a baby. It also means that a large number of effs can be collected at one go and used over several cycles. So if implantation is not successful at the first try the women need not undergo the expensive hormone treatment again and again. Thus the costs of the process will also come down. So far the maximum number of Follicles stimulated is 48.

Looking far into the future we might boldly predict that with IVF, it will even be possible to treat faulty DNA in embryos that would lead to malformation. Maybe you could even have babies made to order if that is desirable!

Objections are often raised to the money spend on IVF research: must public money be spent on IVF in a poor country like ours? Aren't there more pressing problems of diseases caused by malnutrition, poor hygiene, overcrowding, etc? True, we do have a lot to do in the field public health and there are numerous cases preventable diseases, but this cannot be achieved merely by stifling IVF studies. Also, consider the long term benefits that we can attain by IVF research. Perhaps there will be some unforeseen spinoffs too.

Right now private clinics charge about Rs 35.000 per cycle of treatment. If at the end of the treatment the woman fails to conceive, the money is a good lost. It takes on an average four to five cycles for a successful conception.

Besides those seeking treatment at private clinics there are a few hundred couples that go abroad every year for IVF and spend $7,000 to $10,000 on the treatment alone. If the same were done at a public hospital the cost per cycle works out to Rs 10.000. Also. it's easy to fool patients. With a 10 per cert rate of success, some clinics give an impression that a baby can be had for an asking.

The selection of couples for IVF is done meticulously in public funded centers like the Institute for Research in Reproduction, Bombay From the medical point of view, the health of the mother is an important factor to consider before taking her up for IVF treatment. Women who have had children are not offered IVF for conceiving. However, if a women is sterilized and has lost her baby, she is given preference. Where some damage is caused by family planning measures and the woman fails to conceive, she is offered IVF help. This assures women opting for family planning that should things go awry they are not left high and dry.

In our country tuberculosis is a major cause infertility by causing irrepairable blockage of fallopian tubes. If we have not been able to control such preventable diseases, is it not right that we can at least alleviate some of its ill effects.

There are those who strongly recommend adoption for child couples. But those who do so are usually those who have their own children or are probably;. from those strata of society which no longer look upon childlessness as a deficiency or with shame.

The problems that a childless women/couple/family face in our general social mileau are not few. The woman is debarred from social events like pujas that revolve around the mother-child relationship. She may develop tormenting psychological and organic disorders. It may even be taboo for her to play with other's children as the belief in the "evil eye" is still strong among the deprived classes of our society. The family is worried that there will be no one to continue the family name or to perform obsequies for them. These are all very real fears; until such fears are dispelled, and that will not come about soon or easily, IVF offers hope and relief to the affected reasons. IVF should be looked upon as a medical treatment.

And besides IVF is part of development of science; whether one wants it or not science will progress.

Dr Hinduja, a pioneer of IVF in India, is wish the Institute for Research in Reproduction, Bombay.

BEYOND TEST-TUBE BABIES

The in-vitro fertilisation technique which has opened several avenues for the treatment of infertile couples has now become a simple OPD procedure..
Dr Anuja Dokras, currently doing research on IVP in Oxford, writes.

The birth of the first test-tube baby. 10 years ago, was accompanied with a lot of controversy all over the world. The ethical and social aspects of the issue, were questioned. But today, in-vitro fertilisation (IVF), a rapidly evolving procedure, has come to stay. Besides its use in the treatment of infertility, the development of the IVF technique has far greater implications. Medicine had been restricted to preventing and treating disease. It is now possible to assist in human reproduction. Although still in its infancy in India, it is an essential part of the obstetrics department. in most major hospitals abroad.

Today, the procedure has been markedly simplified and several advances have been made over the technique first used by Drs Edwards and Steptoe. This is reflected in the number of couples opting for IVF. Today. many more women are willing to undergo IVF as it is only an OPD procedure.Not only that, they want to try it again and again.

There are specialised clinics or units which deal only with IVF. Patients are directly referred to these units, after prior screening.

THE BABY IS HERE: The IVF technique has generated hope for millions of childless couples

The. procedure, which involves the fertilisation of the female egg (ovum) by the sperm outside the womb, is now a simple technique. It requires no general anaesthesia, no glaring operation theatre lights, no overnight stay in hospital. This is due to the advent of vaginal ultra-sonography which is used to obtain female eggs. This part of the procedure is known as

“recovery” After recovery, the semen sample is added to each dish containing the egg. Today, fertilisation rates of up to 95 per cent can be achieved. An optimum number of fertilised eggs (embryos) are then put back in the uterus. This is called embryo transfer (ET). Several centres are now achieving pregnancy rates of 30-45 per cent.

The commonest application of IVF is in the treatment of infertility. especially when the fallopian tubes are blocked. This primary application, has a lot to offer. Five years ago, about 10 per cent of married couples in India were found to be infertile. However, their problems have been overlooked due to the population explosion. With infections such as tuberculosis and gonorrhoea rampant in our country. pathologies of the fallopian tubes are not uncommon. If more hospitals were to introduce IVF units, a definite therapeutic option would be available to our country.

But this is not the only advantage of IVF. In fact, this discovery was just the beginning. The technique has opened several avenues not only for the treatment of infertile couples, but also for those with recurrent abortions and genetic defects.

There was a major breakthrough in the treatment of infertility. when scientists realised that the IVF method could be used to treat male infertility. This could be in the form of oligospermia (low sperm count). abnormal sperm forms or non-motile sperms. It is now possible to improve the semen sample added to the egg dish, hence increasing the chances of fertilisation. Sperms can be directly injected below the outer layer of the egg or into the egg by, micromanipulation techniques. This can be done when the sperm motility is poor or the sperms are not able to enter the egg on their own. These applications are not far from becoming a reality.

It is possible to freeze spare embryos (that is the embryos left over after an optimum number have been transferred back into the womb). The cryopreservation increases the viability of the embryos and they can be utilised in the next cycle. As a result, the patient does not have to undergo a recovery again and only requires an ET at the correct time in the next cycle.

One advantage of IVP which has fascinated the scientific world is the possibility of guaranteeing a healthy baby by prior genetic analysis of the embryo. Today, advances in antenatal diagnostic techniques enable us to detect conditions such at thalassemias and Duchenne’s muscular dystrophy. This is done by chorion villus biopsy in the first trimester or amniocentesis in the second trimester of pregnancy.

At this stage if the foetus is affected, the only option that can be offered to the couple is termination of pregnancy. This can be extremely traumatic to the couple emotionally and endanger the mother physically. Some couples have as many as six to seven affected pregnancies and hence that many terminations!

If it is possible to determine the genetic pattern of an embryo before ET, only the normal embryos need to be restored.

Out Of The Lab

In some cases, where the husband’s semen sample is not normal, sperm donation has helped. Due to the ease of vaginal ultrasound guided recoveries. ovum donation also seems to be possibility. The baby would then be the result of the. husband’s sperm and a donated egg. and would grow in the wife’s womb.

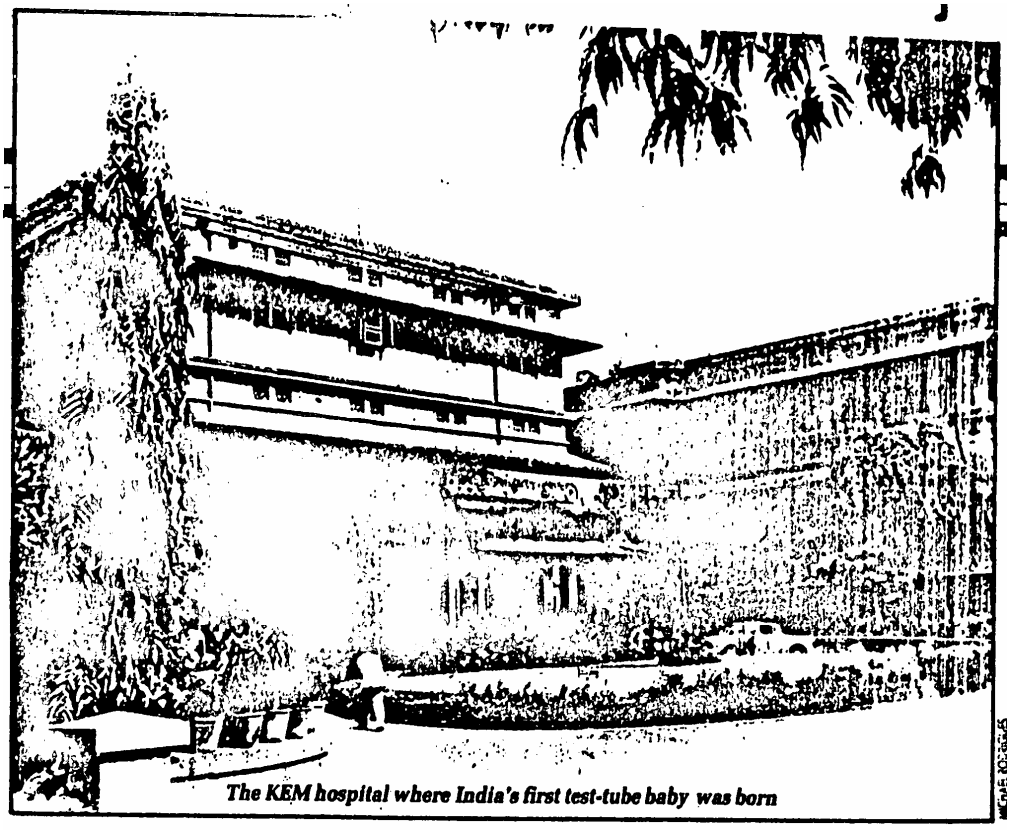
Most of these applications are not just probabilities - very soon they will be a reality. Ethical issues will continue to be raised, probably more often in our country than abroad. It is for the medical profession, bearing these in mind, to continue research with an aim to achieve definite goals in therapeutics. The IVF method is not a panacea -but today it is definitely a valuable treatment for infertility and will complement existing procedures.

RESIDUE OF HOPE

Ever since India's first test-tube baby was born two years ago, scores of childless women have swarmed to Bombay's KEM hospital. For such women, compelled to bear the taunts and humiliation of a callous society, the in vitro fertilisation technique represents the last bastion of hope.
Alpana Chowdhury reports on this social phenomenon.

Ten o'clock on a Monday morning. OPD-12. King Ed-ward Memorial (KEM) hospital, Bombay, already has a long line of women waiting patiently outside it. In one corner of the corridor stands a group of men. the husbands, trying to took as If they don't belong there.

This is the morning when childless couples from all corners of the country, and some even from out-side, flock to this typical municipal hospital to meet Dr Indira Hinduja who,two years ago, delivered India's first, scientifically documented, test-tube baby. Harsha Chawda. Harsha was conceived through the in vitro fertilisation and embryo transfer (IVF-ET) technique which involves the fertilising of the woman's ovum with her husband's sperm in a laboratory. The resulting embryo is then implanted in her uterus. Though the technique is still in its infancy, and its success rate is only 20 per cent. it provides a glimmer of hope to women who have been unable to conceive due to blocked fallopian tubes and also to those who have been sterilised but would like to reverse the process and conceive again.



The KEM hospital where India's first test-tube baby was born

The expressions on the faces of the women waiting outside Dr Hinduja's cubicle vary from the tired and harassed to the hopeful. Most of them have done the weary rounds of various

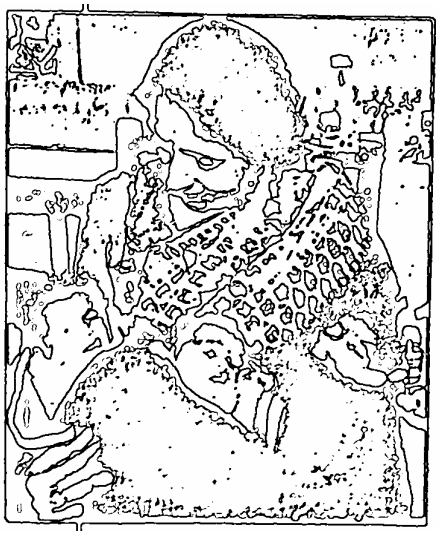
doctors and clinics and even the uneducated among them are familiar with terms like laparoscopy. As one of the women put it. “Visiting innumerable doctors and undergoing innumerable tests I have become a semi-doctor myself.”

She had come all the way from a town in central India and had been waiting in the queue since early morning. She had been married for nine years, but doctors had failed to diagnose why she was unable to conceive. Dr Hinduja was therefore her last hope.

Hadn’t she thought of the option of adopting a baby? “No,” she replied. “It isn’t as if I don’t have the presence of children around me. I live with my in-laws and there are enough children in the house. But having your own is a different thing altogether.”

Another woman, 37 years old, married for 20 years, had come here in a final bid to conceive. She was accompanied by her sister who was the mother of six children! “It :s God’s wish.” she remarked. “But people around me don’t cease to taunt and criticise me for not producing a baby.”

Most of those waiting hopefully to meet Dr Hinduja had read about the ‘tube baby’ or seen programmes on TV. She signified the ultimate hope. To many she was a magic woman, a goddess performing miracles. There have been occasions when even 50-year-old women have landed at her doorstep, hoping to alter the pattern of their lives.



For the women waiting to see her, Dr. Hinduja Signifies the ultimate hope. As she puts it. “ They come to me asking for a test-tube baby like it was a packet I can hand over to them”

A pattern that very often assumes aspects of a prolonged nightmare. For. in a country like ours. reasons for having a child are complex. It involves not just a simple decision by the couple concerned. It may have nothing to do with the pure pleasures of parental joy. More often than not, producing a child establishes your credentials in society. Your manhood and womanhood hinges on your ability to procreate. A ‘barren woman’ is looked upon as an omen of bad luck and the resultant cruelty she can be subjected to can assume terrifying proportions.

According to Kamal Patni, a social worker attached to the Institute for Research in Reproduction (IRR), this undue importance given to child-bearing is not characteristic of a particular class or community.

She cites the case of a 25-year-old graduate who was prevented from even keeping herself mentally occupied. When Patni suggested to her that she start giving tuitions to little children

instead of brooding about the lack of her own, the hapless woman broke down and revealed. “I cannot. Parents will not allow their children to come near me. for they fear a barren woman may resort to doing black magic on their children.”

In certain states like Rajasthan, according to Patni. childless women are ostracised to the extent that they are not permitted to be present on any auspicious occasion. Most of these ill-fated women bear their plight quietly, all on their own. But a small percentage ha’e the grit to attempt altering what others consider as their destiny.

Like the Muslim woman who came to KEM from Kolhapur where she works as a clerk in the irrigation department. An enterprising person, fighting hard to keep doom and loneliness out of her i.e. she keeps herself occupied by teaching other women and little children of her locality after office hours. But her well-organised, meaningful life was suddenly disrupted some time ago when her husband decided to marry again. His decision, painful enough as it is for her, has brought upon her unimaginable humiliation as well. For. the unfeeling husband makes her play hostess to the families of the prospective brides who come to see him.

The question of divorcing her husband entails complications of its own. So she continues to put up with his unreasonable demands, while trying desperately to change her situation. It was her determination to find a solution that drew her to Dr Hinduja. Travelling by the overnight bus from Kolhapur to Bombay, she would land outside OPD-12. early in the morning. After her meeting with the doctor she would refresh herself with a quick snack or fruit juice and board the bus back to Kolhapur. firm in her resolve to bear a baby from the same man whom she loathes.

Most of those lined up outside Dr Hinduja’s ward are unaware of the implications involved in having a test-tube baby. The fact that the success rate is only 15-20 per cent is not generally known, just a visit to Dr Hinduja, they feel, to enough to help them conceive. Expressions on the faces of those who came out after meeting her were dramatic in their transformation. Tiredness had given way to excitement, despair to hope. As Dr Hinduja Puts it, “They come to masking for a test-tube baby like it was a packet I can hand over to them.”

This is why the presence of a social worker is necessary. After the Preliminary physical tests are done on the patients, they are sent to Kamal Patni for a re-evaluation. She does a detailed study of their background to judge whether they are suitable for IVF-Et. When they are not, she gently suggests they go in for adoption. Not all, unfortunately, do so.

Being a municipal hospital, the treatment at KEM is free, though the patient has to buy certain medicines, the total cost of which ranges between Rs 2000 to Rs 4000. Once the woman conceives, her pregnancy follows the normal course.

While the KEM hospital and the IRR of the Indian Council of Medical Research (ICMR)-the two collaborate in this field-have reason to be proud of their achievements, the IVF-ET technique has come in for some criticism. It could be said that such a technique reinforces the idea that mothering is the only role women can play; that for a women to fulfill herself she must be a mother.

It is an expensive technique which the country can ill-afford. According to a report in the Indian Express, August 8, 1988, the cost of a test-tube baby in a private hospital couple be as much as Rs 50.000. Whereas in KEM, the brunt of the cost is born by KEM and the IRR.

It is therefore questionable whether government funds should be utilized for such a purpose when (s) there is urgent need to reduce the population (b) there are far more vital and important areas of medical research and application that are starved of funds and (c) there are so many children in adoption human crying out for foster case.

To this Dr Hinduja replies: “People who say this don’t realize the choice should be the couple’s. If you can’t adopt a child you have no business to tell another to do so. It is, no doubt, a noble act to adopt somebody else’s baby. But why Should we expect only childless couples to shoulder the responsibility of adopting? It is the combined duty of all of us and the nation to look after parentless children. Precreation is everybody’s right and, as a medical person, I am offering my patients a treatment. They must have the option to have a baby of their own if they desire to have one.

“Regarding the increase in population, it’s like a drop in the ocean. The success rate at present is not significant enough to make much difference to statistics. Besides, family planning does not imply a childless family. Everybody is entitled to have a small, happy, complete family.”

According to IRR director, Dr T C Anand Kumar, a developing country like India cannot afford to Ignore new bio-medical developments.

Wanting to abolish certain myths about their achievement be states, The idea that producing a test-tube baby is some kind of magic, a miracle, needs to be wiped out. Also, the notion that Dr Hinduja is some sort of a goddess needs to be discouraged in no uncertain terms.

This success story is a scientific achievement and is not the result of any one individual’s effort. It would not have been possible without the kind of institutionalized support we have here.”

What about the possibility of the IVF-ET technique being misused?. Considering that there is such on urgent demand for countering infertility, cannot it become a convenient means of making a fast buck?

“Anything can become a racket,” shrugs Dr Kumar. And how would he justify the expenses incurred by a developing country in supporting research which will benefit only a miniscule portion of the population?

“The expense is very small. Only a flea-bite,” replies Dr Kumar. And then adds, “How much money was spent on the ASLV which went into the sea? How much money is spent on the rockets we send up? How much money is spent in maintaining troops in Sri Lanka?”

Thus inadvertently focusing on the ironies of modern India-ASLV rockets in a country where millions die of starvation and test-tude babies for people who believe a barren women is a witch.

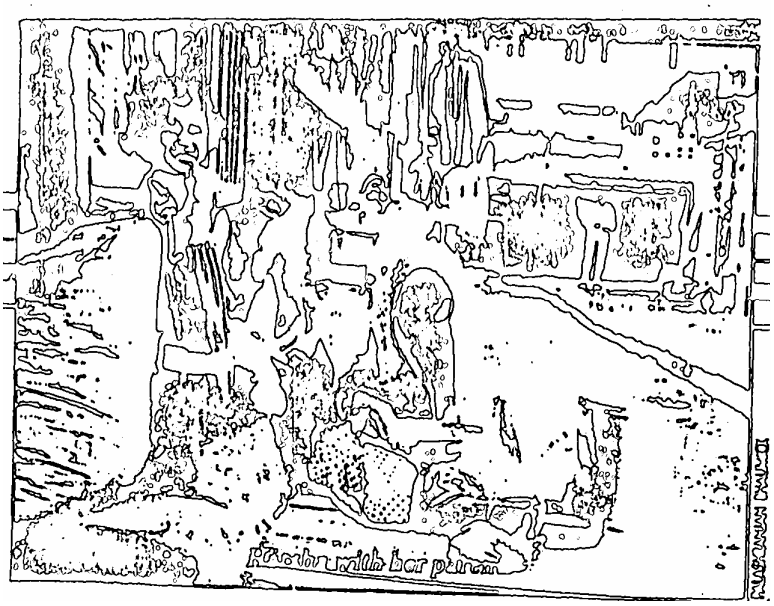
Bundle of Joy

Harsha chawde, India’s first test-tube baby, is a calabrity in Harijan Colony where she lives

Off the Bombay-Ahmedabad highway, in Jogeshwari—a northern suburb of Bombay—sprawls Harijan Colony. A neat, well-kept shanty-town, populated mainly by kathiawadis from Kutch, Harijan Colony has a celebrity living in it. A celebrity who turned two on August 6.

Even without having her exact address it is easy to locate her. Mention the name Harsha Chawda and anyone can tell you where she lives. For the ‘test-tube baby’, as she is commonly referred to, has brought fame to her modest neighborhood.

While the little child sleeps, unconcerned, in a make-shift cradle, her mother, Mani Chawda, proudly shows you the gifts they have been inundated with since the birth of her child.



The SSC-passed Mani is familiar today with all the technical terms associated with childbirth. But it was not always so. When after five years of marriage she failed to conceive and her doctor sent her to Dr Hinduja, she knew not what was in store for her. All she knew was that she was nineteenth on the waiting list and in the hands of a specialist. Her turn came six months later.

When, after a few tests, she was told she was pregnant she was not exactly delirious with joy. The implications of her pregnancy made her nervous and apprehensive. She was the first such case. How would her in-laws react? Woulf her community accept her child? Would they suspect other things? "My tense state of mind made me fail ill." recalls Mani. "But a fellow patient gave me a lot of moral support. Madam (Dr Hinduja) also explained that I should not get worked up, that it would be bad for the child."

Gradually she learned to relax. Thereafter she spent the next nine months in KEM itself.

When on August. 6, 1986 Mani gave birth to a healthy 2.822kg baby girl it was difficult to say who was happiest.

A very confident woman today Mani has become a source of strength for other woman who are apprehensive about opting for the IVF-ET technique of pregnancy. Letters pour in from all over the country from women unable to bear children and who are keen to share her experience. "Since I am unable to communicate in English I have asked Madam to reply to these letters," relates Mani." Her secretary maintains a file of such correspondence and does the needful." A simple janitor's wife. Mani Chawda has become the core of a sisterhood that is bound together by an understanding of a situation that all of them share, irrespective of differences in class and caste. A desperate desire to experience the growth of a child in their wombs makes thom reach out to one another.

ANOTHER BABY BY GIFT FERTILITY TECHNIQUE

Bombay. June 4. (UNI) The first baby to be conceived through the Gamete Intra-Fallopian Transfer (GIFT) method at a private clinic here was born on Friday.

Earlier, in a similar case, a female child, was born in the city. but it was in a public hospital.

The female child, weighing 2.4 kg was born at 7.35 a.m. through a caesarian operation to a 27-year-old woman, who was married 10 years ago and has bad an unexplained infertility problem.

GIFT is a new technique devised to achieve pregnancies in couples, who have not been able to conceive, using available treatment for infertility.

The technique explains that the female egg and male sperm are placed into a catheter and injected directly into the woman's fallopian tubes during a laparascopic procedure. Fertilisation occurs in the woman's body and not outside as in the case of the In-Vito Fertilisation (IVF) method. Doctors can gay within 25 days whether the woman is pregnant or not

The experts responsible for the birth of the baby are Dr. Sandhana Dessi and Dr. Mehroo D. Hansotia, gynaecologists who headed the team; Dr. Narendra Joshi, reproductive biologist; Dr. Ambrish Dalal, sonographist; Dr. Sushil Shah, pathologist; and Mr. Dara Hansotia, Dr. J. J. Dagli. Dr. G. Bhagat, Mr. Vijay Mangoli, sister Marie, Mr. 0. S. Joseph and Ms. Nivedita Tank, all of whom assisted the experts.

Earlier, this team had reported the birth first test-tube (medically known as the IVF method) baby in a private clinic in Bombay.

Dr. Desai and Dr. Hansotia did not disclose the name of the woman, a housewife. Her husband is a businessman. The couple did not want any publicity, the doctors told UNI.

Giving other details,.they._said the mother of the GIFT baby has been taking treatment at .their clinic since 1983. When standard. Anti-infertility therapies failed, the GIFT method was undertaken, they said.

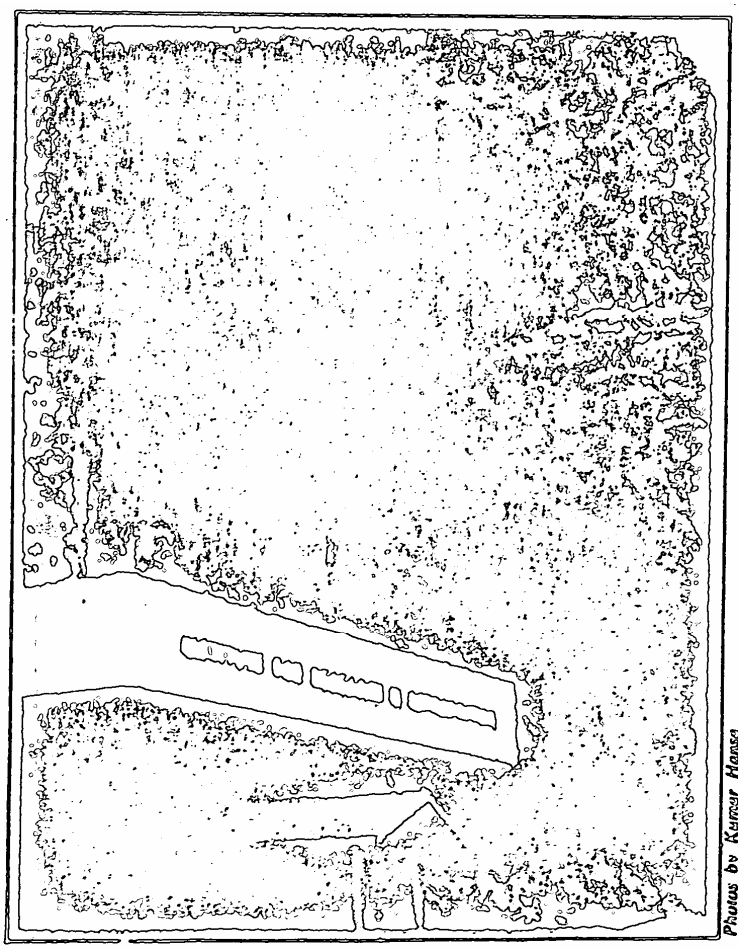
PRODUCTIVE RESEARCH IN REPRODUCTION

You are likely to walk past it without noticing it. Shrouded in a thick veil of greenery, in the middle of one of the busiest localities of Central Bombay, stands the 'Institute for Research in Reproduction' (IRR), which shot into national limelight with a string of successful deliveries of what is now a household name - test-tube babies.

As Your enter the building, you experience a laboratory-like atmosphere, clean, spotless walls and silence all around. As you ascend up the stairs, you notice beautiful, colourful posters of animals, pets, and of course, babies.

Considered one of the most prestigious institutions of its kind in the country, IRR was set up under the auspices of the Indian Council of Medical Research

(ICMR) in 1971 with the express intention of studying problems related to Fertility regulations. Originally known as the Contraceptive Testing Unit before being transferred to the ICMR in 1963, the IRR moved into its own cosy premises next to the K.E.M. Hospital at Parel in 1970.



The IRR has been entrusted with the responsibility of carrying out research on various aspects of reproduction that are relevant to the regulation of human fertility. Research carried out here engulfs a very wide field with its multidisciplinary nature, extending from basic research to carefully conducted clinical trials.

In this connection, the IRR collaborates with a number of other institutions and hospitals both in Bombay and other parts of the country. For instance, IRR is one of the World Health Organisation Clinical Collaborating Centres in Human Reproduction and is actively involved in carrying out multicentric clinical trials under the aegis of the WHO. Another major activity of IRR is documentation and dissemination of scientific literature in the area of reproductive biomedicine. Finally, IRR transfers to other institutions research methods and techniques evolved, developed and standardized here by imparting training to their scientific staff. IRR, thus, effectively serves as a technological base for the ICMR's programme in fertility regulations.

IRR was created keeping larger national interests in mind and being a public sector research and development organization, the research programmes here were specifically designed to meet the awesome challenges of the National Health Plan of the Government of India. The activities of IRR are grouped under various thrust areas, each of which has well-defined and goal-oriented research projects.

"One of the major thrust area of IRR is interaction with primary health services (PHS) which serves a large chunk of the rural Indian population," says Dr. Anand Kumar, Director, IRR. Accordingly, IRR Puts into practice its research findings into the problems faced by PHSs, and currently, a pilot study is being conducted by IRR for the Maharashtra Government at one PHS in Kaman village which serves the predominantly rural and tribal population. "This project is about a year old, and the startling finding was that a majority of eligible couples for contraceptive use were unaware of currently available family planning methods and relatively small percentage actually practice family planning," says Dr. Kumar.

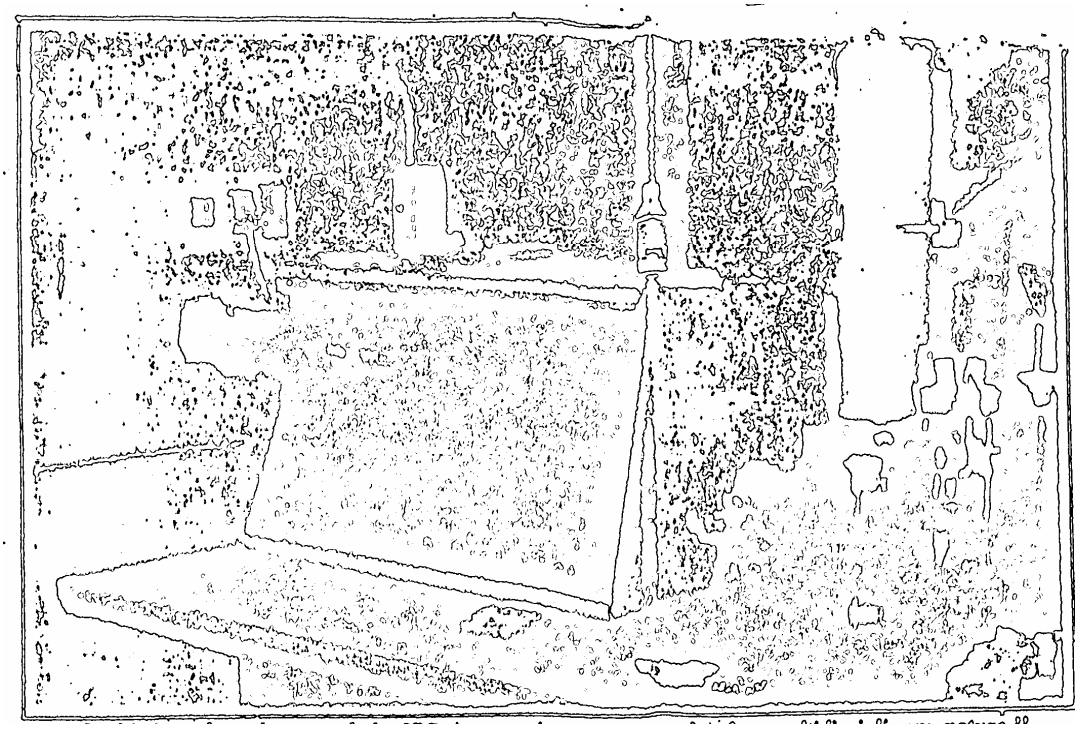
Another thrust area of IRR involves active participation in clinical testing of newer contraceptive modalities identified by the ICMR to evaluate them before introducing them on a mass scale in the Government's FP programmes. "While currently available contraceptives are efficacious their main drawbacks are certain side-effects in some persons which prevents their widespread use," says Dr. Kumar. For instance, intrauterine devices cause excessive bleeding in some women, steroidal contraceptives cause irregular bleeding in others and tubectomy if followed by bleeding problems. "Our research is aimed at indentifying the causes and take remedial steps to improve upon them" says Dr. Kumar.

THE IRR is also involved in the process of carrying out pioneering work in identifying alternate methods of drug delivery which are non-invasive, convenient, safe and self-administrable. The intranasal administration of contraceptive steroids has been successfully tested in women and a study is being now planned to evaluate the extend to which the dose of contraceptive steroids could be reduced by administering even naturally occurring steroids.

"Current research efforts are directed to the development of a suitable drug delivery system which will have a long shelf-life and consistently deliver the desired doses and preliminary studies indicate that it is possible to package 200 metred doses of the contraceptive in an aerosol device," reveals Dr. Kumar.

Another area getting the attention of the IRR is research to evolve a safe, chemically induce, totally reversible method of contraception for use by the male of the human species. Studies carried out till date indicate that it is almost impossible to completely arrest spermatogenesis with drugs. There are also a number of clinical examples where the human male is infertile despite producing a fairly large number of spermatozoa, which appear to be normal but lack the ability to fertilize eggs.

Research is presently on to produce a drug which can impair the fertilizing ability of the spermatozoa but which does not affect other physiological parameters as an acceptable male contraceptive. Furthermore the IRR is working in the direction of identifying and differentiating between spermatozoa having fertilizing ability and those lacking it and has already identified certain morphological and physiological characteristics to facilitate such identification. This is expected to enable the screening of drugs which affect male fertility without affecting sperm production.



The IRR is also actively working in the vast field of neuroendocrinology. As Dr. Kumar explains, the brain regulates a variety of reproductive phenomena, but how this is done is not known to the human being. However, the IRR has developed an in-vitro organ culture method in

which explants of brain tissues from animal models are investigated with specific reference to the way they regulate the pituitary gonadotropin secretion and its other functions. One important finding has been the identification of hormones which inhibit the secretion of pituitary gonadotropins by acting on the neural tissue.

Nearly ten per cent of the human population is infertile and the cause of certain types of infertility are yet to be discovered. Infertility is yet another field in which the IRR has been making excellent progress. A major concern of infertility is that caused by the occlusion of the fallopian tubes which can occur due to genetic defects, infection or surgery. In-Vitro Fertilization and Embryo Tranfer (IVF-ET) is the only type of treatment available to such cases of infertility. "IRR, in active collaboration with the KEM Hospital in Bombay, has successfully established pregnancies following the IVF-ET method," says a beaming Dr. Kumar. During the last one and half years, five bony babies have been born using this technique-mote popularly known is the 'test-tube babies', giving succour to barren women, and hope to millions of childless couples throughout the country.

There are some other areas in which the IRR is doing commendable work, chief among them being reproductive immunology, hormone assays and biologically active proteins. Reproductive immunology concerns itself with immunizing in

IS A TEST TUBE BABY A LEGAL HEIR?

Tapas Chakraborty *met some lawyers to find out whether a test tube baby will have the same legal rights as a child born naturally*

When Dr E. Steptoe add his colleague announced the birth of the first test tube baby, their painstaking research was hailed as a breakthrough by doctors and childless couples alike. But the euphoria was somewhat dampened by a doubt that has slowly but surely gained ground in judicial circles: Will a test tube baby have the legal right to his or her paternal property?

Most lawyers feel the very concept of test tube babies is sure to catch the public attention in India as a resort for many childless couples. But, they add, the legal status of such children is bound to be uncertain-neither are they illegitimate nor do they come under the category of adopted chidren. Their status becomes all the more complicated in cases where sperms for fertilising the ovum are borrowed from sperm banks, or in the case of surrogate mothers.

Most of Calcutta's legal practitioners feel that the existing laws are not wide enough to delineate the legal rights of test tube babies, if any controversy arises. Should such a child. Justice Bhagwati Baner-jee of Calcutta high court said, be naturally born, there will be no scope for discussion on his right or status in society. However, if such a child is born of sperm borrowed from a bank then questions regarding his father's religion', caste, nationality and character may arise.

Justice Bhagwati Banerjee

Some diehards may argue that should such a child be "adopted" by his surrogate parents, questions regarding the inheritance rights of such children need not arise at all. Justice Banerjee, however, pointed out that even if the child in question is "adopted" by. his parents, the controversy is not settled because in such cases the formal consent of the real parents is needed. When sperm is borrowed from a bank, the identity of the parent is doubtful; so how can the adoption be regularised, Justice Banerjee argued.

He, however, added that the law should be widened to encompass such an eventuality in the near future.

While illegitimate children are entitled to paternal property under the law and the Indian Succession Act is specific about the rights of step-sons and natural sons, the rights of inheritance of test tube babies have not been clearly outlined, said Mr Gitanath Ganguly, a senior member of the City Bar Association and author He pointed out that in a country like India where inheritance rights are determined on the basis of religion, the succession laws must be broadened accordingly.

Justice A.M.Bhattacharya of the Calcutta high court, who. found the "debate interesting and worth judicial attention," quoted Section 112 of the Evidence Act. "Under our law any child born during the continuance of a valid marriage shall be conclusive proof that the child was legitimate even if born through the test-tube process. The test-tube process by itself, would not bring in any legal complication if the . germinative cells of the couple themselves are fertilised and then transplanted in. the mother's womb."

However, problems may arise when "fertilisation is carried out with the help of sperm from a bank and it can be shown that at the relevant time the husband had no access to his wife or had no physical capacity to procreate," Justice Bhattacharya added.

There were instances in the West where the surrogate mother, overcome by maternal feelings, was unwilling to part with the child after birth. Legally, however, the right to the child rests with the parents. "If the child is born in the womb of a surrogate mother who has duly entered into a valid contract to hand over the child after birth, the surrogate mother is bound to return the child as a recent case in the US has proved. 'Justice Bhattacharya pointed out. "But in cases where the surrogate mother is married and her husband is living, the actual parents cannot claim custody of the child under the existing law," he added.

3 MORE TEST TUBE BABIES DELIVERED

Dr Indira Hinduja's Obstetrics team orchestrated the delivery at the KEM Municipal Hospital today of three test tube babies conceived by three women through In Vitro Fertilisation and Embryo Transfer (IVF-ET).

The babies, two boys and a girl, were delivered by caesarian section by Dr Hinduja. Dr Anup Gupta and Dr Raju Nagarsekar with assistance from house surgeons, Dr Jatin Shah and Dr Monish Shah.

The babies are doing well in the care of the staff of the neo-natology department headed by Dr Sinin Irani, the registrar, Dr Suhas Kallapur, and nurse, Mrs Leela Joseph.

The hospital's maternity ward, still festooned with the colourful buntings and stars of Diwali, bore happy witness to the three new births, which brought to six, the total number of babies born so far by IVF-ET since August 1986.

The parents of the first baby, a boy, are Shaila and Charuhas Salam. Mrs Salam, aged 34, had been issueless for the past nine years as a result of blocked faliopian tubes, like scores of other women, afflicted similarly, she had come to the KEM hospital for assistance. In her case, repair of the tubes. Done elsewhere previously. had been unsuccessful.

A JOYOUS ARMFUL! Dr Indira Ilinduja holds the three little babies born on Wednesday in the KEM Hospital

Mrs Satam was Treated by IVF-ET following which she became pregnant and gave birth, this morning to a baby boy weighing 3 kg. The second baby, a boy, was born to Aruna and Shyam Moral. It weighed 2.9kg.

Thirty-two-year-old Mrs Moral had been infertile for 10years due to occluded fallopian tubes.

The third baby, a girl, weighing 2.62kg was born to Chamanlata and D.N. Goel. Mrs Goel. 30, is also a case of occluded fallopian tubes who had been infertile for 8 years.

The births are the result of coliaborative studies carried out in the clinical field and laboratory research by staff of the KEM and the IRR.

Hospital sources said that as many as 800 women. Some issue-less for as many as 25 years, had come to the KEM Hospital's Special OPD for infertility cases for treatment in the past eight months alone. The opd, open

! at KEM

thrice a week, on Mondays, Thursdays and Saturdays, from 9 am to noon, is crammed with desperate women, as an attendant doctor succinctly put it.

Admitting failures at practically every level in the initial stages of research. Sources said that the success rate in the IVF-ET technique had increased ever since the birth of the first baby. Harsha, who was born on August 6, 1986 to Mr and Mrs Mani Shamji Chaval. The technique could result in failure at any one of the three stages:

- The failure of the woman to ovulate, which hampers obstetricians from collecting eggs.
- The non-fretilisation of eggs of sperm.
- Failure to implant the uterus with fertilized eggs.

Although babies born as a result of this procedure have come to be known as test-tube babies. Interestingly enough, the only stage at which a test tube is used, is when the eggs are picked up from the uterus.

The actual fertilization takes place in a shallow plastic cylinder which is known as a petri-dish in medical parlance. The KEM Hospital, it is pertinent to note, imports most of the materials for use in medical and surgical treatment, notably microscopes, laparoscopes and centrifuge tubes, as locally-manufactured items, particularly the last named, are crudely manufactured and noi suitable for use.

Hospital sources also said that IVF-ET is resorted to in cases of infertility which may be traced to physiological impediments. In cases where the infertility in normal couples cannot be explained. A technique called GIFT has been tried.

GIFT is a abbreviation for "Gamit-Intra-Fallopian Technique." The KEM Hospital has succeeded with this new technique for the first time ever in Asia. The first GIFT birth is expected in three months, sources said.

A new ultra-sound guided ovum pick-up for embryo transfer and IVF-ET, sources also informed, will be fully operational iin 60 days from now. Dr Hinduja is at present, studying the mechanics of the machine, which was purchased last month.

A STAR BORN A YEARAGO

From SHIREEN D. MISTRY

BOMBAY. Aug. 7.-She does not know it, but she's the star of the neighbourhood. Though there's no outward sign which distinguishes her, she's special, Her photographs have been published in every news paper and magazine in the country. She has appeared on television. There are millions whe Arrise every year, but she seemed destined to be Born, She is Harsha Chawds, India's first "test-tube" baby.

Last Wednesday, Harsha, where birth last year was perhaps the most publicised ever in the country, turned one year old. Thhe tiny, round-cheeked toddler taking her first hesitant steps in the courtyard of a municipal colony in Goregaon, a suburb on the distant outskirts of Bomnay is obliviocs of the fact that she is the living representation of a major step forward in India's medice-scientifie achievement,

BORN TO A PEON

Harsha, born to Mani and Shyam Chawda, (a peon in a municipal school) was the first baby to have been conceived and delivered in India by the IVF-ET (in vitro fertilization and embrys transfer) method. Briefly, the process involves the fertilization of overies and spermatocos in vitro (therefore, test-tube) conditions, in cases when fertilization is not possible for example, because of blocked failopian tubes.

The ovaries are first stimulated by hormonal treatment, and extracted at an appropriate time. They are then maintained in vitro until they are ready to be fertilized, at which stage active spermatozos are added in requisite concentrations, After fertilization occurs, the resulting gygetes are transferred directly into the uterus, and thereafter, the growth of the foetus proceeds as usual.

The IVF-ET technique was perfected in India by Dr Indira Hinduja, Head of the Department of Grnaecology and Obstetrics at Bombay's Frestigious King Edward memorial Hospital, after three years of unrelenting research at the Institute for Research In Reproduction. The annual New Year's greating card sent out by the institute, able January, not surprisingly featured Harsha's chubby face instead of a festive motif.

When Mani and Shyamji Chawda ware selected by Dr Hinduja as a couple most likely to respond to IVTW, they had no idea that they were creating Indian medical history. It was only a month or so before the baby was due that Dr Hinduja revealed to the couple the uniqueness of their parenthood. In the sudden upsurge of media into rest that followed, a weekly drove some the rare status of their soon-to-be-born baby.

FORTNIGHTLY CHECK-UP

Throughout the pregnancy. Dr Hinduja had watched over Mani like a hawk, and, in the year that followed this concern was extended to the baby, who is presented at Dr Hinduja's clinic every fortnight.

After the wide publicity accorded to Harsha's birth. Dr Hinduja has been flooded with requests from couple seeking similar treatment. "Before Harsha was born. no one knew about this method", laughs Dr Hinduja, "Now, we have couples who come here and say, We have come for a test-tube baby"'.

After Harsha, another "test-tube baby" is due in September, three in November and three more early next year.

The cost of having a child by such a technique is difficult to estimate, Mani and Shyamil said about Rs 4,000. The rest of the cost was absorbed by King Edward Memorial Hospital and Institute of Research on Reproduction in their case. At a private clinic, couples could apparently have to spend as batten as Rs 50,000

According to Dr Hinduja, the success rate of IVF-ET is about

SPECIAL BIRTHDAY GIRL

20%. So, It is not the answer for all childless couples. The technique definitely not applicable, in certain specific Instances such as un explained non-conception, or childlessness due to low sperm count, lack of ovulation, or TB.

On the social front, there has been a mixed response. After her parents took Harsha back in the Chawdas in the municipal chawl in jogeshwari,. It was reported that the community and the people around, out of ignorance about the "strange" method of its birth, were not accepting the child, Dr Hinduja, herself at a talk soon after Harsha was born, had expressed concern about this social reaction. It is possible that this could have been one of the motivating factors for Mani and shyamji's recent move to a colony at Goregaon, further afield.

Not however, before "test-tube" became a familiar term in the Joheshawri colony. From roadside vendors to flower sellers, stray souths and small children, a query regarding the Chawdas' residence was greeted with "test-tube baby ka ghar?" followed by precise directions.

It has not taken Harsha long to attain celebrity status at her new home either. Especially with the broadcast of a television programme on her last week. Judging from the way they flocked around to help us elicit a smile for the camera from a sleepy and Inclined Harsha her new neighbours have obviously fallen under the spell for her undeniable charm. "She's always out playing with somebody and seems to do fine without us smiles her mother, as Harsha is passed from one friend to another.

FREEDOM

There is no danger of this little girl being swamped by the over protectiveness that would have been a natural consequence. A quietly confident Mani believes in giving her the freedom that any other normal child would have.

News of Harsha's birth was also greeted with reproving comments about the "needlessness" of such research when there are millions of homeless children in India, not to mention mounting population pressure. Since about 10% of the couples in India are childless, and the success rate of the technique only 20% reproduction-oriented research is hardly likely to cause any significant increase in population.

As for the other argument, a furious Dr Hinduja rightly points out "Homeless children are the responsibility of the entire society -you me, everybody. Why should it be the responsibility of only infertile couples to care for them. Even fertile couples could have one and adopt one" (a. method which has long been advocated by sociologists and economists of heavily populated countries).

She also points out that IVF-ET and similar techniques are treatments which should not be denied to couples who can be treated. "It is a treatment just like organ transplants coronary by-pass surgery, or any other", she ways. "We do not think of not offering those treatments simply because there are so many mouths to feed. As long as I can, I will fight to give couples who can be treated the children they want".

ANOTHER TECHNIQUE

Dr Hinduja has also been working an another technique, with the appropriate acronym GIFT (gammette intra-Fallopian transfer) by which a gammette is transferred directly into the Fallopian tubes instead of the uterus. The baby is expected in January next year.

A birthday party was held for Harsha at the IRR on Wednesday. When I took her in my arms and wished her a happy birthday. I felt great", says Dr Hinduja in a voice choked with emotion, Mani, too, is unabashedly proud of the little baby: "Kitnee eater hal na?" she giggles as Harsha Flashes a smile. Though her parents wanted to name her after the doctor, but for whom she would never have been born; her horoscope deemed otherwise. And the baby was called "Harsha" (Joy). She could not have been more aptly named, and she has the good wishes of the nation behind her Happy Birthday Harsha.

TO HARSHA: A NOR

By PARUL SHETH

In human beings, the urge to conceive is the strongest biological imperative after the will to survive. In fact, it is the collective will to survive. What we all envisage are tiny human beings to love and cherish and to bring us joy. Once it was simple. Boy meets girl, girl marries boy, couple makes babies.

But, today there are many ways to make babies. Medical technology is exploding. It is now that a significant proportion of infertile couples are seeking treatment after spending years trying to have children. Medical researchers have been practicing various techniques to. ensure biological fulfillment of these couples. A rarity only a few years ago. babies conceived by in vitro fertilization (IVF) technique are now being bore at a worldwide rate of more than one a day. Creating life on a slide has put the power of absolute control into medical hands.

It was exactly a year ago that India's first scientifically documented "test. tube" baby girl was born at the K.E.M. hospital. Bombay on August 6. 1986. We expect this baby to grow into a normal and healthy baby just as the other "test-tube" babies around the world. According to Dr Indira Hinduja. Gynaecologist and Obstetrician,

K.E.M. Hospital. Bombay, this baby is growing very well except that she did suffer from minor problems like diarrhoea. cough, cold etc which any other baby would experience during the growth process. There should of course be no reason for the baby to grow in an abnormal way or any different way because although she was conceived in a petri dish, she was born completely normal.

The baby is now a year old and is a pretty picture of health. Her responses are the same as in a naturally conceived child. It is her mother who has all the right to take pride in her. Psychologically, the mother is happy and contented. The attitude of people around her did cause her some amount of anxiety and trauma but now she is mentally prepared, to face all the social barriers and criticisms which she may come across.

There are seven expectant women who are waiting to become mothers of their precious "test-tube" babies at the K.E.M. hospital. Following the birth of this "test-tube" baby in 1986, the in vitro fertilization-embryo replacement (IVF-ER) technique resulted in yet another birth of a baby boy on the April 29 this year delivered by the Caesarian section at the K.E.M. Hospital. Boys bay. The boy's mother had an uneventful pregnancy. Besides these, there may be other women expecting their "test-tube" babies in private nursing homes. Also. two women at the K.E.M. hospital, who have been treated using a refined and advanced version of the IVF technique known as GIFT or gamete intrafallopian transfer. are also awaiting the birth of their 'GIFT' babies. This technique is said to be theoretically better than the IVFER as a number of delicate steps that have to be performed with great care outside the body are avoided. GIFT has an advantage over the IVFER as it enables the embryo to enter the womb in its own time. the normal way.

In both these techniques, .the need for storage of eggs arises probably because of the .low success rate of the techniques. When a fertility drug is used to make a woman produce a number of eggs it makes clinical sense to fertilize them all, implant two or three and keep the rest of the embryos

in the deep-freeze, to allow another go at implantation if the first attempt fails. What would be the plight of these fertized eggs?

Dr Anandkumar the director of the Institute for Research in Reproduction (IRR). Bombay, said that at present they do not have a proper set-up to freeze the embryos but they would definitely do so as soon as they set up facilities. And when the time comes, he would use these embryos for an appropriate purpose—either gift them or use them for research purposes. But, there has been much concern about this practice of keeping very early embryos alive for long periods in deep-freeze, pending reimplantation in the womb. The director of IRR feels that the question of ethics does not arise as an embryo has no thinking power .to decide where it wants to go. We are in the midst of a technological explosion. The ideas and values of people change during the years. It is difficult to foretell the ethical values even after another tea or twenty years.

It might also surprise many that a densely populated country like India should favour a programme like IVF-ER or GIFT which would accelerate the problem of population overgrowth. In Dr Anandkumar's words "Medical research in India is. to a large extent supported by the public exchequer and the fruits of such a public-fund-supported research must be available to all segments of the population including those who are extremely fertile as well as those who are infertile". Moreover. according to him the advent of the IVF-ER technique has now provided a major. and justifiable reason to investigate infertile couples thoroughly and thus has .offered many. opportunities to identify and study factors contributing to infertility. And, an understanding of these factors, may provide dues as to how to induce infertility in fertile couples as a means of family planning.

"There are a number of lessons to be learnt from Nature's Workshop which has created the infertile couple". It is true to the extent that progress in the field of medical science is a sheer necessity and if we are able to advance the present knowledge it is a feather in our cap. Evidence shows that the fate of an infertile couple is certainly not as gloomy as it was a generation ago

"Why stop the birth process, why not let people die. instead of saving them by performing coronary bypass or kidney transplants or removing, cancer tumours? Infertile couples have all the right to decide for themselves, to decide to undergo treatment as long. as they want. Why should they carry the burden of adoption and not the normal healthy couples who have already had .a child?" says Dr Hinduja very strongly. Also. it is not human for a doctor to refuse treatment to a patient who comes with "unnatural pathological conditions" or is not able to conceive a child.

In practise, it is also a question of affording this or any other technique. How many of us would be able to bear the sky-high expenditure which is involved and how many of us will be able to bear the frustrations of not conceiving for a long lime after the treatment? In India, it is evident that the social situation and moral values are different. It is difficult to imagine the psychological problems of the growing "test-tube" babies in India. The publicity and the attitudes of society and friends may prove to be traumatic over the child's lender and growing mind. One can just hope that these children are treated as normal children and are allowed to grow up into normal human beings.

GIFT-WRAPPED BABIES ARRIVE

New reproductive techniques have come into their own in India, more so with the recent success of the Gamete Intra-Fallopian Transfer (GIFT) method at Bombay's KEM Hospital. But, are we headed for a brave new world or, are we inviting an uncertain future governed by genetic mutations, made-to-order babies, prominence of male children, human clones and what-have-you. GEETA SESHU analyses the implications of this raging issue.

IT'S the eternal triangle all over again - but for the significant replacement of the proverbial 'other' person with the Doctor - or, if you will, the medicine men, geneticist, biotechnologist, researcher, gynaecologist. . . . planning a family is no longer the concern of the couple.

Consider the implications of the entirely Indian story of reproductive techniques which came into prominence with the success of Bombay's KEM Hospital's Dr. Indira Hinduja in her experiments with test-tube babies. Her latest success, which she announced at a medical conference this month, was the engineering of a conception via the Gamete Intra-Fallopian Transfer (GIFT) method.

The 'test tube baby' syndrome is only one dimension to the growing phenomena of new reproductive techniques. Right from sex prc-selection through tests like Amniocentesis and Chorion Villi Biopsy (CVB),. to tube babies, to artificial insemination from a natural parent to a. donor, surogate motherhood, genetic selection, cloning... the possibilities seem endless.

In India, perhaps due to the obvious preferences of our social structure, the demands made on researchers for new reproductive techniques have been confined to sex preselection and to the 'test tube babies' to satisfy the needs of infertile couples. However, if test tube babies have arrived, can the rest be far behind?

The first Indian baby to be born through the In-Vitro Fertilisation-Embryo Transfer (IVF-ET) method (excluding the curious case of the Calcutta child-'Durga') on August 6 last year, sparked off a demand from many more childless couples and spawned numerous clinics all over the country which claim varying success rates.

The GIFT method, as opposed to the IVF-ET, involves the aspiration of the egg just as in the latter method. However, the sperm, after being treated, is artificially placed at the ampicilliary end of the tube where fertilisation takes place. Thus, the oocyte (mature egg) and the sperm meet in the normal way, rather than outside the body in a petri dish.

What is interesting about the GIFT method is that chances of mishap arc reduced and the procedure is not as cumbersome. What is more interesting is the other implications of the success of this method. Dr. Hinduja describes as "plenty" the demand from childless couples for using this method. Couples come from all over the country to try their luck through the technique.

The time has come for a more serious evaluation of the entire gamut of new reproductive methods and their implications on our country. Till now. one had heard echoes of the intense debate in the West on in-vitro fertilisation, donor insemination, surrogate motherhood - remember the highly publicised court case recently wherein a surrogate mother refused to give up the infant she nurtured to the 'real' parents.

The new reproductive techniques are concerned with the most basic threads in society's fabric. It is but natural that they elicit extremes of opinion from religious organisations. scientists, feminists and the lay public.

DR. T. C. Anandakumar, director of the Institute for Research in Reproduction (IRR). Parel. Bombay, who says that 'this is the most exciting period for biology', wonders how progress in science and technology can be arrested.

The basic objective of science and technology, he says. is to improve the quality of life. Taking off at a tangent. Dr.Anandakumar speaks of how heart transplants are quite common nowadays, coronary bypass operations becoming popular and challenges. being posed by applications of techniques like balloon angioplasty.

"More people are living of cancer today than dying of it. There is no doubt that science has made a great deal of difference to life and the living," he says. Talking of the social implications of new reproductive techniques, according to him, was a tricky issue. If the lay public can hail methods like heart transplants, how can they decry reproductive techniques?

Dr. Anandakumar. who represents the forceful argument that every couple has a right to a child and it is the duty of the doctor to see that it is possible for them to bear children, is unconvinced by arguments that, for childless couples, adoption can be a logical alternative.

The adoption argument found little grounds in the West, where the number of childless couples are much higher than the number of children put up for adoption. The situation in India, needless to say, is quite different.

However, the. Indian ethos is certainly not geared towards encouraging adoption. Almost all the major religions in this country are clear that the one basic reason for marriage is procreation. Procreation at all costs. Hence, if a man can discard one wife to marry another because the first wife was unable to bear children, the scene is set for in-vitro fertilisation, donor artificial insemination and surrogate motherhood.

So far. there have been no instances of these mutants of the new reproductive techniques in India. But what has alarmed both doctors and women's groups alike is,.the high, incidence of sex determination clinics and abortion of female foetuses.

In almost every urban and rural centre, sex determination clinics do a roaring business. Charges range from Rs. 70 in established family planning clinics lo four-figure rate in specialised 'medical and genetic research laboratories'. Both Amniocentesis and CVB, meant for the diagnosis of hereditary disorders, are used to only determine the sex of the foetus.

Following age-old laws, if there is a demand in society, all its machinery is geared towards meeting the demand. Sex preselection is the new watchword. Small research units, which use highly sophisticated equipment, either attached to major hospitals or independent, are presently engaged in numerous experiments to separate the 'X' and 'Y' chromosomes (male and female characteresiics respectively) and impregnate the potential mother with the 'Y' chromosome only to ensure the conception of a male child.

While scientists engaged in such experiments vociferously claim that the sex ratio in society will not be disturbed by the increasing use of sex preselection techniques, women's groups in the country arc equally vociferous that the sex ratio is already detrimental to female population in the country.

By this time, one factor absolutely clear is the amount of money involved in both sex determination Techniques and in

GIFT – WRAPPED BABIES

the test tube baby experiments. Dr. Anandakumar, who puts the rates for test-tube baby experiments at $ 6000 in the USA and £ 4000 in the UK. however feels that most medical techniques today are expensive.

In India, the cost of a test tube baby could be anything between Rs. 5000-Rs. 10.000 in a public hospital. In private hospitals, the cost could easily shoot, up to Rs. 50,000. This takes into account the cost of injections for inducing maturity of follicles, medicines, tests etc.

Hospitals, both private and public, have begun investing in the sophisticated equipment needed to start test-tube baby units. Obviously, the one way in which costs can be cut down is to increase production. As it is, an Incubator which can provide a completely controlled environment for 136 eggs has been developed.

If scientists have debated rather clinically the impact of new techniques on society. there has been a resurgence of frantic discussion from religious organisations on the implications of these techniques.

While the Catholic Church speaks of the moral implications of procreation apart from sexual relations through the meeting 'in vitro' of the germcells previously taken from the man and the woman, attitudes favoured by Jewish religious authorities on IVF-ET are inclined towards the Biblical commandant of "be fertile and multiply."

While Jewish law is still considering the question of birth by IVF-ET, some babies' do permit the artificial insemination by donor and surrogate motherhood in special circumstances. Interestingly, experiments on "freezing' of an embryo are viewed with apprehension only in so far as a younger embryo resulting from a later ovulation and fertilisation is born first. The reason; the 'first born' is the legal inheritor to property under Judaic law.

Lately, Islamic law has also , taken a stand on the new reproductive techniques, especially artificial insemination. by donors, which has been likened to adultery and 100 lashes of the whip is the recommended punishment for couples pursuing this technique.

A point to be noted is that one major aspect of most religious arguments on new reproductive techniques, especially those emanating from the Church, come under the category of 'pro-life'. Translated to mean that the zygote/foetus is a living being right from the stage of fertilisation. Therefore, abortion is anti-life and must be opposed, says this group.

AT present, there is a clamour for more debate on the ethics of such techniques and their implications on society. But while opinion is divided on whether such techniques have a positive or negative implication on the social structure, two factors are emphasised: the elimination of secrect in further research on these techniques and a far greater understanding of the role of the three main protagonists in the reproductive drama - the doctor, the male and the female partners.

Firstly, most research on new techniques is conducted in the antiseptic environs of laboratories, clothed in both secrecy and scientific jargon, It is but natural for researchers to adhere closely to the credo of 'Science for Science's sake.' and shrug .off all responsibility for their. discoveries (it's the old argument: with nuclear physics came, the atom bomb, with. electricity came the electric chair, with aviation came bombers...with. genetic engineering comes. human cloning).

In a discussion on the roles of the doctor, the potential father and the mother, there is considerable concern for the psychological effect of such techniques on the mother. Is she. only a receptacle for the experiments of the doctor? Wish surrogate motherhood, what are the bonds of

the surrogate mother to the foetus? How many women in India undergo an abortion under pressure when sex determination tests show that the foetus is female?

Again, with the greater role played by the doctor in the entire process, does the doctor play God for patients looking for a saviour?

If there is a crying need for society to keep pace with science, the accountability and better. more factual communication of all parties involved, is of utmost importance.

FERTILE CONCEPT

A new technique of embryo transfer for sterile couples.

HARDLY HAS the excitement created by her IVFET (In Vitro Fertilisation and Embryo Transfer) technique died down, when Dr Indira Hinduja, the person responsible for the country's entry into the front ranks of genetic research, is back in the news. This time she has come up with a more sophisticated, sure-fire technique of embryo transfer: GIFT (Gamete Intra-Fallopian Transfer). Says an elated Hinduja, "I ventured into trying the GIFT method because I found that the success rate in In Vitro was very low. My first gift patient is due in December. So far her pregnancy is normal. All the same, I'm keeping my fingers crossed."

Dr Hinduja with her test-tube successes (above and right): "GIFT has a higher chaace of success ia pregnancy"

Dr Hinduja, a full-time gynaecologist attached to KEM who made history when she delivered India's first test-tube baby in 1986, has been working on GIFT for the last three years. According to her, GIFT will have a higher success rate (65 to 70 per cent) of pregnancy than IVFET as the implanted embryo enters the womb in its own time after being fertilised in the natural way in the fallopian tube. In Invitro, the fertilisation is effected under laboratory conditions and the resulting zygote is implanted in the uterine cavity.

In the GIFT technique, as in In Vitro, the patient receives hormone injections to stimulate the ovaries .to produce up to 10 eggs in one cycle, instead of the normal one or two. The basic drugs

administered to bring about this increase are Chlomephene Citrate and Human Menopausal Gonadotropin. “However the dose given depends upon the individual protocol,” points out Hinduja, The tablets arc followed by a series of injections (300 international units) which are given depending on the patient’s menstrual cycle. “There are no dietary restrictions, or any other conditions to be adhered to,” assures Hinduja. “One can eat anything and everything.”

Daily ultra sound and blood tests (to measure the hormone level in the blood) monitor the growth and maturity of the eggs. When the eggs grow to a desirable size, (around 15 mm), about 34 hours after the last injection, they are harvested by a simple surgical operation called laparoscopy under general anaesthesia. “These eggs are then studied morphologically for any defects, and only fully matured eggs are selected,” says Hinduja. The selected eggs are then stored in carbon dioxide incubators.

Two-and-a-half hours before the operation to implant the embryo into the fallopian tubes, the husband’s semen is collected, washed and concentrated in allumilium called HF-10 to capacitate it for fertilisation. “The washing and concentrating removes seminal plasma, cells and bacteria, and thereby enables even man with a low sperm count to have children,” declares Hinduja. However she adds that the sperm count should not be less than five million per ml—the normal being 20 to 120 million per ml.

“Timing and surgical techniques are the keys to GIFT,” says Hinduja, explaining how the actual embryo transfer takes place. Two eggs and about one lakh sperms are introduced into each of the fallopian tubes, through instruments known as taffelon catheters, by means, of laparoscopy. Usually more .than one egg is_implanted_in order to increase the chances of at least one being accepted by the body. The chances of success are about 10 to 15 per cent and those of a multiple pregnancy are about five per cent Hinduja however feels that the risk of a multiple pregnancy is well worth it, considering the benefits of the technique for infertile couples.

On the 17th day after the ovum pick-up, if no menstruation occurs, the woman is subjected to a pregnancy test. If the test is positive, an ultra sonography test is carried out after two weeks to confirm the result. “From then onwards it is a normal pregnancy, provided there are no complications,” says Hinduja. During the first three months, patients have to report for medical check-ups every fortnight- “because the risk of abortion in the case of GIFT is higher during the first three months of pregnancy by almost 28 to 30 per cent,” says Hinduja. The frequency of check-ups then becomes monthly.

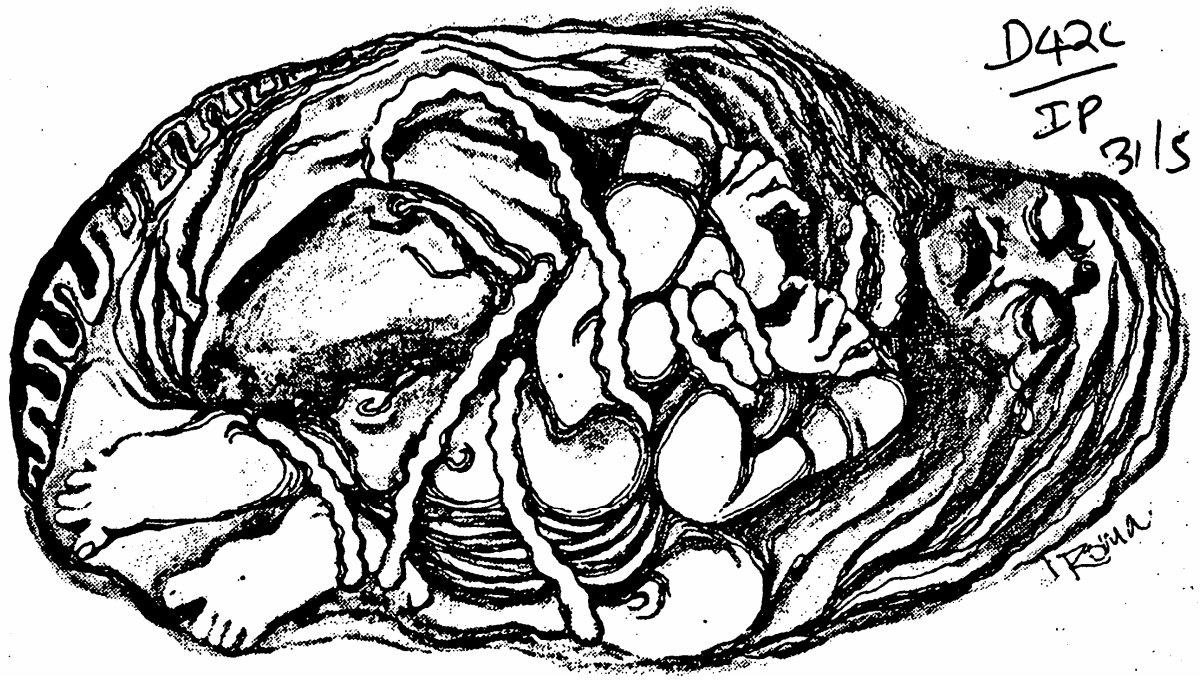
Although not much research has been done, Hinduja feels that the chances of abnormalities in a baby thus conceived are absolutely the same as in an ordinary pregnancy. “In such cases, the body has its own way of rejecting the foetus. GIFT does not increase the risk.” With the first GIFT delivery scheduled for December, Hinduja, for whom genetic research is something of an obsession, is optimistic. “If everything turns out as expected, then I am sure millions of sterile women, in the country will have the bright new hope of having children,” she says encouragingly. She adds that the GIFT method will not be useful for women who have had their fallopian tubes blocked or removed by surgery.

At the moment, all the patients who come to the Institute of Research in Reproduction at Parel, which is the nerve centre of genetic research in the city, are treated free of charge. “They only have to bear the cost of drugs which comes to roughly around Rs 2,500. The cost may rise in years to come,” says Hinduja and adds, “Isn’t it worth paying for such a thing?” And there. is little doubt that the vast number of childless women in India. who have been given a fresh lease of hope by Hinduja, will gladly pay for their ‘gift’.

UMA PRABHU

THE XYZ OF SEX

Sex determination tests and, now, sex pre-selection techniques are the hottest new items in the super-bazaar of new reproductive technologies in India. Often Justified as useful and effective family planning and population control aids, defended as a constitutional right tied up with freedom of choice, they actually uphold and perpetuate the devaluation of the female sex. Worse, seen in the context of the already adverse sex ratio in this country, they may well help to eliminate women altogether. RAVI DUGGAL and MANISHA GUPTE talk to three women who have used the latest sex pre-selection method, the Ericsson technique, and expose the ethical, moral and socio-political underpinnings of such 'scientific' innovations



Aristotle's formula for couples who wished to beget a son was to make love in the north wind. To those who wanted a daughter, he suggested making love in the south wind, Hippocrates' advice to prospective fathers was to tie a string around the right testicle for a son and around the left for a daughter.

Eastern societies have used astrology and astronomy as well as religious rituals to invoke the gods to bless them with a male heir. The cultural traditions of male chauvinistic societies have always speculated on techniques to Identify the sex of an unborn child (especially male).Rituals have been evolved for this purpose, techniques of sexual intercourse, and prohibitive as well as promotive practices have been impregnated into cultures.

When biologists identified X and Y chromosomes as determinants of the female and male sexes respectively, they scoffed at the practices that ancient cultures had evolved to determine sex. But, soon; the biological sciences, too, got infected with the virus of sex determination because of the patriarchal nature of society and the state.

As early as in the 1960s, Dr Landrun Shettles of New York city's Columbia Presbyterian Medical Center claimed that he had developed a 'scientific' technique for selecting the sex of a child before birth. Shettles' finding was that a douche of vinegar (acidic) in the female

reproductive tract would confer an advantage to the X-chromosome, while a douche of baking soda (alkaline) would shift the odds in favour of the Y-chromosome.

Shettles was soon discredited, but science did not give up its search for newer techniques of both sex determination and sex pre-selection. The fruits of scientific research are available today in the form of various half-baked sex pre-selection techniques which raise ethical issues, as well As perfected genetic tests that are being grossly misused for sex determination.

It is in this context that the latest sex pre-selection technique being touted in India by gynaecologists has to be critically examined. Several women are undergoing the process of getting pregnant using this technique. which has recently been introduced by a private clinic in Bombay.

Usha (the names of the women interviewed for this article have been changed to protect their privacy) is a. graduate in chemistry. Her husband is an industrialist. They have three daughters: the oldest is seven years old. They live in a joint family. Usha's sister-in-law has sons and this makes her own position in the family precarious. For her husband, too. the lack of male offspring means a loss in status which, in the long run, will reduce his stakes in the family business.

Three years ago. Usha risked a third pregnancy in the hope of having a son but. instead, got a daughter. Although she had agreed to have a third child much against her wishes, family pressure on her to bear a son did not ease even after this. Today. Usha is preparing for yet another pregnancy but. this time. she thinks things will be different because a scientific process is available, with the aid of which sex pre-selection is possible. In other words, she can now decide the sex of her child before she plane her pregnancy!

"The fruits of scientific research are available today in the form of various half-baked sex pre-selection techniques, which raise ethical issues, and perfected genetic tests that are being grossly misused for sex determination."

The process that Usha has pinned her hopes on is the Ericsson technique of chromosome separation and concentration. This technique, developed by reproductive biologist Ronald Ericsson in California, and patented and licensed through Gametrics Limited, Involves the separation of the X and Y chromosomes in the sperm. To 'ensure' the birth of a male child, sperms are placed in a glass column filled with a dense liquid protein (albumin), in which sperms with the Y chromosome have greater mobility In the 'swimming race' that follows. Y-bearing sperms, now given an advantage, swim faster and reach the bottom of the glass column first. This process is repeated till a 75-80 per cent concentration of Y-bearing sperms is achieved. The process takes four hours.

The concentrated sperms are artificially inseminated into the woman's cervix on the same day. This, says Ericsson, places the odds in favour of male progeny to the extent of 75-80 per cent, in contrast to the normal probability of 51.5 per cent. The probability of giving birth to a male child is thus enhanced only by 25 per cent, while there is still a 25 per cent chance of a girl being born. To produce a female child, the sperms are filtered through a starchy gul in which the X-bearing sperms swim faster. However, the pre-selection technique for a female child has not been fully developed and its chances of success are only 56 per cent, according to Ericsson.

Usha does not appear to be particularly perturbed by the ethical questions raised by such a process. As an individual, she says, she has a right to plan her family. And if there is a technique which can help her get a son and it is a scientific method which has no physically or biologically adverse consequences, she is willing to accept it.

“A few years ago, some of my relatives tried nasal drops and alkaline douches to get a male child, but they all landed up getting daughters,” she says. These methods did not convince her because they were not scientific. while the Ericsson technique, she stresses, is scientific and its efficacy has been demonstrated worldwide.

Usha. doesn’t find anything wrong with artificial insemination as long as the sperms are her husband’s. Does she know that the Ericsson technique carries a 20-25 per cent probability of failure? She says the odds are definitely in favour of a male child but, if a daughter is born, she will accept, her. “I don’t believe in using amniocentesis for sex determination because it is unethical,” she says emphatically. addling. “But I feel sex pre-selection is okay.”

But Radha, another candidate for the Ericsson technique in Bombay, feels differently. She has two daughters, the oldest having just entered college. Six years ago. she tried an alkaline douche because her gynaecologist had told her that she was too ‘acidic.’ She conceived .and underwent an amniocentesis test to find out the sex of the child. When she was told it was female, she immediately aborted the foetus. Today, she is willing to risk another pregnancy because she feels a pressing need to have a son.

Radha, too, lives in a joint family that has its own business. She disguises the family pressure for male progeny by insisting that it is her daughters who went a brother, will she accept a failure? No: After conception, she will undergo a chorionic villi biopsy (CVB). This is the removal of the elongated cells (villi) of the tissue surrounding the foetus (chorion) through the cervix. The tissue is then tested with DNA probes or put through sex chromatin studies for the presence of X or Y chromosomes. The CVB enables sex determination between the sixth and 13th weeks of pregnancy and abortion, if desired, can be done in the first trimester itself.

If the foetus is female, says Radha, she will abort. What about her own health? “That doesn’t bother me.” Doesn’t aborting after getting to know the sex of the foetus disturb her? Radha is silent. “It will be worse to have another daughter,” she says finally.

Wouldn’t it be simpler to adopt a baby boy? “There is no question of that. It wouldn’t be acceptable either to me or to my family.” Usha voices the same opinion about adoption.

Radha has already undergone the Ericsson process once but failed to conceive. She spent more than Rs 3,000 on it and is now preparing to repeat it. According to Ericsson, a woman has to be inseminated with the separated and concentrated sperms about two or three times before conception may occur. This is in spite of the fact that a complete sexual audit of the couple is taken beforehand. For the husband, this means a sperm count and a check for any defects (especially if the couple has not had any children), while for the wife, it means a laparoscopy and an ultrasonography.

The insemination is carried out after a proper monitoring of the ovulation cycle. If a woman is in her late reproductive cycle, she would have to undergo a greater number of tries as well as laparoscopy and other procedures to clear blocked fallopian tubes, for instance, or to overcome other problems with her reproductive tract.

Sharda. who has travelled all the way from Coimbatore to Bombay to try the Ericsson technique, has this problem. She is 39 years old and has four daughters. The eldest is 21 years old and is seeking registration for post-graduate studies in psychology.

Sharda, too, is from a joint business family where the pressure on the women to bear male heirs is very strong. She, too, will undergo a CVB after she conceives through the Ericsson process because she certainty does not want another daughter.

Usha. Radha and Sharda are three of the 27 women who have registered with a private polyclinlc in Bombay which has been given the sole franchise in India to conduct the Ericsson

technique of sex pre-selection through a licence from Gametrics Limited. There are 46 such Ericsson clinics , all over the world and they are fast multiplying, especially in Asian countries, where the male child syndrome is highly prevalent.

The propagation of such a technique is an extremely dangerous trend because most Asian societies, given the choice, would rather not have girls because of social and cultural practices that make women a burden to the family. In a country like India, which already has a sex ration adverse to women (935 women to 1,000 men, according to the 1981 census), the availability of the Ericsson technique will only worsen the situation for women.

Rosy pictures are conjured up around the sex pre-selection technique. It is advocated as a 'social service' since, now, for the first time, "couples can improve the quality of their progency." 'quality' implying the male gender. In the pamphlets issued by Ericsson, the shrewd defences built up against expected resistance are quite evident.

Though his technique for choosing the male sex is better developed. Ericsson explains this by saying that "the methods for selecting females are more complicated," and that they "are also being developed by Gametrics and others." The fact is that the market for the male sex selection method is very high and the demand for female methods very low.

Contrary to Ericsson's claim that 52 per cent of the couples who contacted him wanted daughters (he doesn't disclose the sex ratio and other family factors of these couples), figures show that only 15 (six per cent) of the 263 couples registered in his clinics have opted for female children. Similarly, of the 27 couples registered at the private clinic in Bombay, only three couples (11 per cent)–all of whom had only boys–wanted a girl baby.

Another smart defence used by Ericsson is the 'personalisation' aspect. Arguing about the appropriateness of sex pre-selection on social, ethical or religious grounds, he says, "This merely highlights the fact that gender pre-selection is a very personal question to meet a very personal demand." By personalizing the 'need,' he conspires to divorce the personal from the political, which is antithetical to the slogan of the woman's movement that 'the personal is political.'

> "Sex pre-selection and sex determination techniques cannot be seen isolated other from social reality or the population control policies of the government"

The questions that arise are: Is a woman allowed to have more than one child in China or to freely abort her foetus in the US or, for that matter, even to refuse to bear children within marriage in India, however personal the demand may be? Are personal choices made in a vacuum or are they governed by the prevalent social, economic and political conditions?

Clearly, sex pre-selection and sex determination techniques cannot be seen isolated either from social realities or from the population control policies of the government. When the state, in connivance with ideologists abroad, believes in a selective control of population–which generally focuses on the poor, the tribals the landless, the marginal peasantry and women–such selective methods of breeding will find covert sanction. The government will, at the most adopt a helpless, apologetic stand.

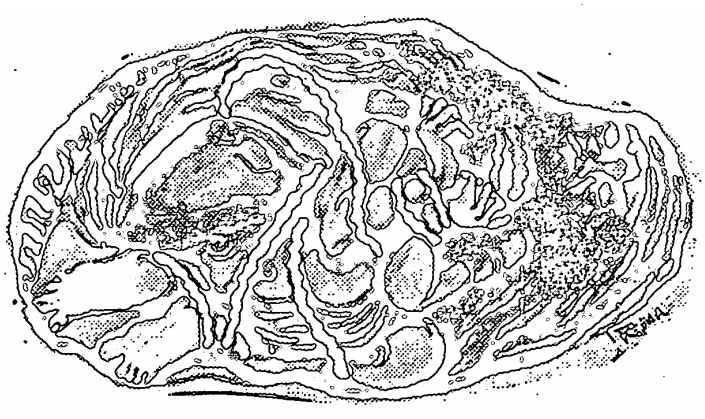
The government's hysteria about over-population and its conviction that this is the root of all evil in the country has led to ridiculous stipulations such as the net reproduction rate of one (NRRI). In lay terms, this means that only one daughter should replace her mother-the corollary being that there needn't be a limit on the birth of sons.

Girls, argue population pundits, are the future breeders of society and: therefore, their birth has to be curtailed to curb the growth of population. To achieve the goal of NRRI, the

government would, of necessity, require sex determination as a 'remedy' and, better still, sex pre-selection as a 'preventive' measure!

For centuries, the patriarchal structure of society has tried its best to control and subjugate women through their reproductive organs. While Victorian physicians removed the ova of women to subdue their 'aggressive' qualities. scientists of the 20th century have organised more powerful tools of socio-political control over a woman's reproductive function.

> "The flight is not against the technology itself, because that is only a tool, but against the exploitative social structure that seeks to control not only women's bodies but also their minds."



In spite of a conscious feminist movement in the US, the Reagan administration has adopted a moralistic attitude towards abortion, while in India, in spite of a prevalent conservative culture, the government accepts and encourages abortions wholeheartedly because they help control the population. The woman's personal choice and her control over her own body do not figure in such calculations in either sub-continent, Sex pre-selection must, therefore, be seen in the context of political ideology. It would be naïve to see it in terms of giving a couple the option of planning their baby's sex.

In the final analysis, it is clear that sex pre-selection does not involve only ethical and moral issues. It has strong social-political undercurrents which are linked to patriarchy and the status of women. The modern methods of sex pre-selection and sex determination are, like traditional practices and mores, not only promale but anti-female.

The power of control that such practices exercise is clearly manifest in the ideas and attitudes of Usha, Radha and Sharda. They are victims of patriarchy and its social structure. Their pro-male stance is not because of a strong, personal belief. It just demonstrates the way the social system has reared them into accepting a male-dominated society as the means of order and the core of control.

New reproductive technologies such as sex pre-selection provide yet more anti-female fodder to patriarchy, and help to strengthen it. They have to be challenged, publicly condemned and officially recalled before they begin the process of eliminating women. But it must not be forgotten that the fight is not against the technology itself, because that is only a tool, but against the exploitative social structure that seeks to control not only women's bodies but also their minds.

FEMALE FATHERS AND MALE MOTHERS

The legal, ethical and sementie definitions of the words mother, father and child will become obsolete with the reproduction revolution.

THE Vietnam war and the movement threw up the slogan—Make love, not war. Later, those who became alarmed by Malthusian prediction about the runaway increase in the world's population modified that to say: "Make love, not babies".

With the linkage between sex and procreation thus broken, scientists, who were watching all the fun from the guidelines while secretly working on their own projects, made bold to twist the slogan right around and give birth to one of their own: "Make babies, not love".

The technique of in-vitro fertilisation or what has popularly. but quite wrongly, come to he known as the test-tube baby technology promises just that. One can now be a parent even when nature has put obstacles in the way.

With the benefit of hindsight, the scientists sport an enigmatic smile and shake their beads. They find it quite puzzling to see how humanity, themselves not excluded, could have been co ignorant—or shortsighted-to believe that the natural way constitutes the only means by which the family tree can keep growing. For now they know that there are at least eight ways—and a possible ninth—of siring one's progeny.

The natural, or what scientists call the feoital-gestational, way is only one of them. All the rest are human-engineered. That is why some suggest that the biological name of man be changed from Homo sapiens to Homo autofabricus.

Two methods which act man moving in that direction have already been put into practice. One of these is called AID or artificial insemination by donor.

The other method, of course, is the one which gave birth to Louise Brown in 1978, and since then to quite a basketful of babies, although several varistions on the original theme of in-vitro fertilization have already been played.

James Watson, co-discoverer of the structure of the deoxyrlbonuclele acid (DNA), the molecule of heredity, had predicted in 1971 that "the in-vitro methods of reproduction will be routine in 10 to 20-years and "cloning" or reproduction from one parent only would be an accomplished fact in 20 to 25 years, if not sooner."

Watson was proved prescient about the first half. That forecast came true earlier than he thought. The second part of his prophecy will, however, take long in coming if it at all comes into being. But that will be more for ethical reasons than technological ones.

To "clone" a human being, following Watson's peep into the Future, the nucleus of the unfertilised female egg is destroyed or removed with the help of microsurgery. Such a denucleated egg has all the nutrients, in addition to all the machinery that can allow that single cell to divide and grow into an adult. It is a like a factory fully equipped with the production plant merely waiting for the prototype or the basic design. What is missing is the masterplan—the genetic blueprint which can direct and control that mechanism.

That blueprint in provided by taking the nucleus containing the full complement of 46 chromosones from a body cell. It could be a skin cell, or one scraped from the liver, anywhere in the body. For. in terms of having the total gamut of hereditary information they are all alike. Once the nucleus from such a cell is pineod in the denueleated egg, it "feels" fertilized and starts dividing or growing, It can then be implanted in the uterus for the total gestation.

Since the ontiro genetle information comes from a single individual, and not two as in the natural case, there is only one parent and the child is born in his or her own image.

Some contend that if the nucleus is donated by a male, then strictly speaking, it is not a single-parent child because the egg can come only from a female. So it will still take two to tango. That is true, However, the egg as well as the nucleus can both come from the female. In that case she alone will be the mother and the father. Women's lib protagonists will favour this and suggest that there is no need for men in this world. They, like the legendary Parasurama, who had wiped out all the Kshatriyas from the face of this earth, might end up ridding mother earth of her male offspring. For, cloning performed with a "female" nucleus would give birth to only a female child.

There are no signs of that eventuality materialising. With troubled consciences, the ethically concerned scientists decided to observe a self-imposed moratorium on all research in this direction. Short of that, however, there are several other innovative procedures which can bring future babies into this world.

Suppose, a couple remains childless, not because either the husband or the wife is sexually inactive or incapable of producing healthy germ cells, but because the fertilised eggs does not find the right nest to grow in. The womb may been removed. That can then be "hired" from a surrogate mother. A few such cases have already occurred with Some traumatic consequences both for the real mother and the surrogate (see story on Page 11),

And if a womb can be borrowed, why not an egg? There may be that unfortunate girl whose ovaries had to be removed because of a cancerous growth which was mercifully detected early. Does she have to be deprived of the joys of motherhood too? Of course, not, She can borrow an egg from a donor, fertilise it with her husband's or lover's sperm and then grow it is her own womb. Scientists call it prenatal adoption.

The legal, ethical and semantic definitions of the words mother, father, child are going to become obsolete with the incoming revolution in reproduction. If the egg is donated by one donor, the sperm by another totally unrelated to the first, and the fertilised egg transferred to a third one's womb, who will be called the real mother? Or the father?

In fact, there will be several mothers, the "biological" mother who donates her womb, the "genetic" mother from whom the egg derives, the "nursing" mother who breast-feeds the infant and the "governess" mother who nurtures the growing child. Even the great Solomon might find himself at wits end to resolve the tangle.

This brave new world would, none the less, be not totally tilted in favour of women. Of course, some might argue that new techniques, especially female cloning, put an excessive burden on women. For they have to provide the ovum, at times even the nucleus and certainly the womb.

Nothing much can be done about the ovum; but the burden of carrying the growing foetus for nine months can certainly be dispensed with. Artificial or glass wombs can be used. As it is, the isiterle or incubator for premature babies is already in use. It can be refined further. The biggest hurdle yet to be overcome is, of course, development of an artificial placenta.

Appalled at all this Baburao, our sceptic-in-residence, remarks God, these scientists cannot make man carry the foetus inside him for nine months." Well, Baburao may be deprived of the comforting solace too. With organ transplantations becoming fairly routine the day would not be far-off when a uterus could be implanted in a man's body. There is enough space for it in his abdomen. Hormonal treatment can even stimulate a man's rudimentary breasts to secrete milk.

True, there is no cervical canal for delivery of the baby. But not to worry. The sessrean section will come in handy for this male mother.

A NEW WAY TO ELIMINATE WOMEN?

Dr .Ronald Ericsson, a reproductive physiologist-from the US, was recently in India to propagate a new sex selection technique he has invented. MANISHA GUPTE and RAVl DUGGAL, who spoke to him, discuss the ethical Questions this controversial technique raises and the adverse impact it will have on the already unfavourable sex ratio in India.

ADDRESSING a press conference in mid' April this year. Dr Ronald Encsson. a visiting reproductive physiologist from the US, explained the controversial technique he has invented to Califormia whereby the father's sperms could be segregated on the basis of sex characteristics and then. through fertilisation of the mother's ovum, a child of the desired sex could be produced. Dr Ericsson has floated the Gametrics Limbed Company and has 46 clinics all over the world to propagate and universalise his patented technique.

The technique is based on the premise that the Y (male sex) bearing sperms swim faster than those with the X (female) characteristic, when placed in a glass column filled with a dense liquid protein. After this "swim race the Y containing sperms can be collected at the bottom of the column. The mother-to-be then could be artificially inseminated with (his Y-rich semen and would have a 75 per cent chance of producing a male child. To produce a female child, the sperms are filtered through a starchy gel, in which the X sperms travel faster. The female sex selection is, however, not yet fully developed.

"Even the argument that sex selection is entirely non-invasive and non-violent is untrue and neither is it as modestly priced as, it is made out to be."

The technique has created a future in the US. Though a particular male may either have an X or a Y concentrated semen, the probability of his fathering a male child slightly above 50 per cent (there are 106 males to every 100 female born), a fact that is demographically proven and

even accepted by Dr Ericsson. How useful a this technique then? It raises questions of ethics and issues other than the mere 25 per cent extra chance of producing a child of the desired sex.

Rosy pictures are conjured up about the sex election technique. It a advocated as a "social service". since now for the first time "couples' can improve the quality of their progeny", "quality" implying the male gender, naturally. In the pamphlets issued by Dr Ericsson one can see the intelligent defences built up against expected resistance. Though his technique is better adapted to choose the male sex. he says that the "sex selection for females is more complicated", but that "methods of selecting females are also being developed by Gametrics and others". He argues that 52 .per cent of the couples who have contacted him wanted female children (he does not disclose the sex ratio of the children in families which wanted a girl baby). Yet while 248 couples in his clinics have selected boys. only 15 couples have actually undergone the test to have a female child, bringing down the percentage of the latter to less than sex.

Another smart defence used by Ericsson is the "personalization aspect". Arguing about the appropriateness of sex preselection on social, ethical or religious grounds, he says that "this merely highlights the fact that gender preselection is a very personal question to meet a very personal demand". By personahsing the need, be divorces the personal) from the political, a position which is antithetical to the feminist stance that the personal is political.

Ericsson's argument that his technique is not sex biased is refuted by the the fact .that 11 of his clinics are in Asian countries where the male child syndrome is very prevalent: Malaysia, Taiwan, Korea, Pakistan, Egypt, Jordan, Singapore and now lndia. It is difficult to place a halo around .the propagators of sex selection when it is evident that all they want is to fill their coffers at the cost of an anti-woman feeling that exists worldwide. Ericsson's research in reproduction has resulted in seven lucrative patents and be still holds the monopoly through the chain of 46 Ericsson clinics all over the world: Each Erissson clinic, according to the terms of contract can conduct the gender section only after importing the necessary 'reagents from Gametrics, US. Local gynaecologists, too, may proceed to undertake artificial insemination in their own clinics only after acquiring in their separated and concentrated sperms form the nearest Ericsson laboratory.

The Ericsson technique has raised many controversies in the west Artificial insemination has been opposed on religious grounds In India, a similar resistance may not be put up because actually Indian mythology is filled with episodes of "foreign seed is wife's womb". The wife being a commodity of the husband, her events was the -"garden" that her husband owned and therefore the fruit of any "seed" that set root in the garden legally belonged to the husband. There are innumerable stories of sterile kings inviting, revered hermits to "donate their seed" to the queen to be able to bear a "legitimate" heir to his throne. The idea of the "husband's own seed" being artificially inseminated may not seem like a repugnant idea at all.

Dr Mehta, who will run an Ericsson clinic in Bombay argues that the cost benefit is greater when a couple uses sex selection as compared to amniocentesis. He says that amniocentesis only detects gender. The dangers of undergoing an abortion, that too in the second trimester of pregnancy arc greater, so is the cost. However, the argument is not very convincing. Sperm separation alone would cost around Rs 1,000, consultancy and establishing the reproductive capability of the couple would cost much more. (Five per cent of couples would come with infertility problems such as low sperm count and blocked Fallopian tubes, and in these cases the defect would have to be removed by sperm concentration or laparoscopic surgery, respectively).

After the separation of sperm, the woman would. have to undergo expensive ultrasonography to pinpoint her ovulation time. Artificial insemination, again, would be charged separately. Such

a procedure would cost, at a modest estimate, Rs 2,000. The entire procedure may have to be repealed three or four times to ensure pregnancy.

Once the woman gets pregnant, there is still the lurking 25 per cent chance that she may have conceived a child of the "wrong" sex, ie female if the had hoped for a male or vice versa. Therefore, she would still have to undergo a chorionic villi biopsy or amniocentesis and in the event of such a mistake, would have to undergo an abortion, or repeated abortions, at the cost of her health and at exhorbitant financial cost as well. Therefore, even the argument that sex selection is entirely non-invasive and non-violent is untrue, and neither is it as modestly priced as it is made out to be.

The consequences of such a technique would be horrifying. Firstly and most evidently, it would adversely affect the already unfavourable sex ratio in India. According to the Census of India, 1981, there are 934 female per 1,000 males. Given the "male child craving" so obvious in India, couples would not be content with having one male child just to "balance their families" but would, definitely not have even a single female child if they could help it.

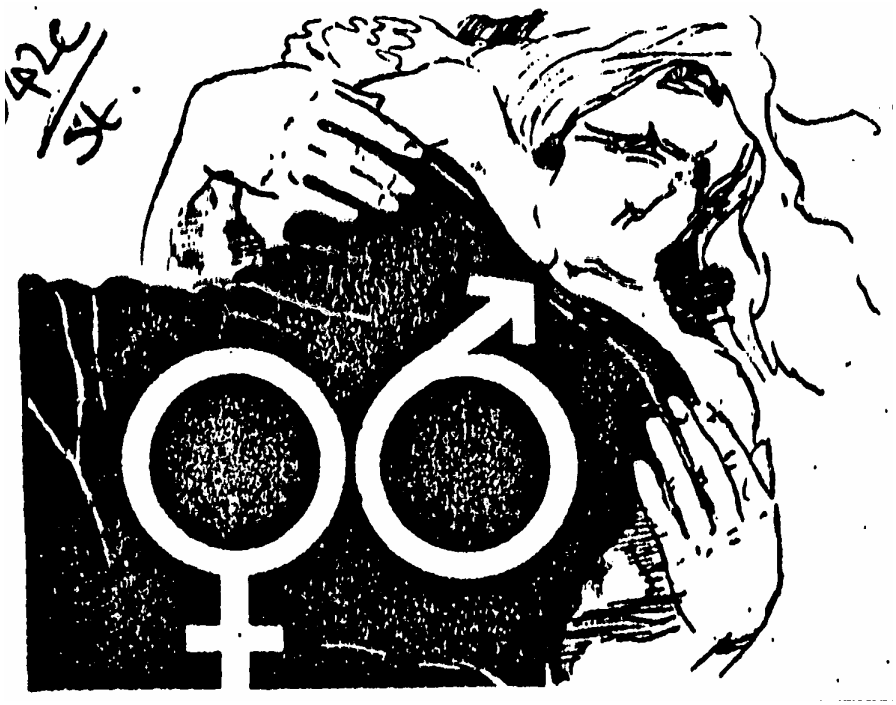
The argument that the status of. women would rise if their numbers decreased has been scientifically disproven. There are numerous surveys to prove that, in fact, an adverse sex ratio increases rape, purdah, polyandry as well as other violence on and oppression of women. The status of Indian women is pitiful enough when they are born as "unavoidable evils" but is will be such worse when they are born despite a plumed conspiracy to exterminate them. In Punjab, a girl is endearingly and indulgently called "Muee" (literally meaning "dead"), indicating the secret death wish that even natal family members place on their female progeny; so, the unmasked hostility towards a female, born as an "accident" after the procedure of sex selection,can be well imagined.

Even if the sex selection technique is not always used to entirely annitillate women, it is most likely that it will be used to select the male gender for the first borns. A social psychologist of Cleveland State University, Dr Roberts Steinbacher argue that the "younger sister phenomenon" Would institutionalize a second class status for women, as first borns are known to be aggressive achievers who tend to the more successful educationally and economically than siblings born later.

Another clever game that the "sex selectors" play is to pass the buck around. When asked about the social consequences of sex selection they deny all responsibility and say that while it is the doctor's duty to please individual clients, it is the duty of the social workers to educate me general public against discriminating techniques. When asked as to why they do not refuse to perform such controversial techniques, they argue that since couples would anyway resort to all kinds of unscientific and harmful methods to produce male offspring and get "cheated", the benevolent medical profession could not be blamed for performing such tests. These arguments were advanced by both Dr Kapoor of a hospital in Bombay where amnoiocentesis is performed and by Dr Mehta who will soon start the sex selection facility.

Insurmountable hurdles await all those who wish to oppose such , sexist techniques. Firstly, the adversaries are "respectable" members of the medical profession. They have sophisticated advertising media, ranging from slick pamphlets to professionally Prepared slide shows. Not only do they have the power and resources in their hands, but unfortunately, the general public's self-interest is also on their side. The tripartite coalition of the medical technocrats, the government and social preference for male children has to be dealt with simultaneously, and that does not make the fight any easier.

BLUE BOOTIES OR PINK ?



The controversy over sex determination has centred only on amniocentesis. But, as VIMAL BALASUBRAHMANYAM argues, other similar tests as well as sex pre-determination techniques are equally undesirable. The implications of such socially irresponsible science should be the concern of more than just the feminists.

Is the aborting of female foetuses, femicide, nothing more than a "women's issue", or does it raise wider questions regarding trends in technology development and issues such as social responsibility in science? Recent protests in India against the misuse of the amniocentesis test for female foeticide have brought some assurances from the government that measures will be introduced to prevent this. However, since these assurances have been made mainly in the context of amniocentesis, there is a danger that the larger context of the emerging, newer and more sophisticated technologies for sex-selection will get ignored unless doctors and scientists acknowledge the need to take principled stand on these methods as well.

Because the debate has centred on this particular test, no assurances have been given regarding the possible misuse of methods like ultrasound and chorion villi biopsy which too can be used to determine the sex of the unborn child. In fact it has even been argued that chorion villi biopsy may be "safer" end therefore "better" than amniocentesis. Besides this. Government pronouncements on female foeticide are totally silent on the sex pro-determination techniques, which aim at the conception of babies of the desired sex--which, in the Indian context, means breeding male.

milieu like ours, sex-choice methods are inevitably going to be used for breeding male offspring Proponents of these new technologies also argue that breeding male is ethically more acceptable than destroying the female. But the fact remains that femicide and breeding male amount to the same thing — programming the female out of existence. And this will happen in a

situation where already the status, of women is low and the sex ratio is also unfavourable to the female.

This is why the issue of femicide should not be confined to a question merely of how amniocentesis can be curbed, or. whether the abortion law needs to be amended. but must also take into account the more complex question of what sort of technologies should be developed and made available, keeping in mind the social context in which these technologies will be used.

Today In our society there is a strong belief in "science for science's sake" and the myth of value-free technology. Even the media which has generally taken a principled 'stand on female foeticide has published reports on the newer technologies in a "neutral" manner, without analysing the implications of such method being introduced in a country like ours. So far only a handful of the rational health movement, have raised their voices on the social and ethical questions related to the development of medical technologies. The rest of the medical profession has, by and large, preferred to take the stand that the social impact of technology is neither its concern nor its responsibility.

Today the public, the media and the Government tend to regard femicide mainly as a women's Issue, perhaps because feminist groups have understandably been the most vocal against It. However, keeping in mind the broader questions which have emerged. and the possible future directions it is vital for the scientific community to acknowledge that femicide is very much an Issue of technology ethics. Femicide cannot be fought adequately unless we also raise questions about the priorities in science and technology and the areas of research for which scarce funds should . be allocated;

This is why the need of the hour is for all progressive groups working on social issues related to science, medicine, technology and health to join the women's movement in its struggle against femicide and all sex-choice technologies.

Today, research is going on In sperm-separation techniques which have already been perfected In cattle breeding; methods Involving regulation of the diet to control vaginal acidity and make it conducive to the conception of particular sex: and timing of intercourse In relation to the menstrual cycle. In India there is funding for all these fields of research, including research in the areas of Unani and Ayurvedic medicine. Clinics already exist which enable couples to plan the sex of the child through sperm separation. timed intercourse and diet regulation. The present debate over femicide has more or less sidestepped all these aspects. It is known that even test-tube babies can be sex-selected, and the possibility of future test-tube babies in a country like India being sex-selected cannot be ruled out.

It is often argued that all these methods can be used for breeding either male or female and that the technologies themselves are "neutral" Yet it cannot be denied that in a socio-cultural

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Move to ban sex determination tests in Punja

HOSHIARPUR, November 22: There is a proposal to ban sex determination of embryo in Punjab and a draft has been prepared in this connection to be sent to the Union government for approval.

This was disclosed by Dr Pathinal Singh, director of health services, in an interview here on Sunday.

He said that many cheats were active in the state exploiting the students by admitting them to courses of electrotherapy, which was not recognized by any state in India.

Mr Singh said the joint director, health services, had been deputed to make an inquiry against such cheats, especially those running electrotherapy colleges in the state.

Replying to a question, he said there was no proposal to stop payment of non-practising allowance to government doctors, after allowing them to do private practice.

Referring to the poor state of ambulances of civil hospitals he said new ambulances of standard companies would be purchased on receiving permission from the government.

Mr Singh said he had instructed all civil surgeons in the state to purchase drugs only from standard companies.

Orissa to ban pre-natal test

NEW DELHI, May 30 (UNI) Orissa will soon bring out legislation banning pre-natal sex determination tests.

The Orissa Health Minister, Mr Niranjan Patnaik, said while addressing the State Health Ministers Conference that the State Government had already requested the Maharashtra Government to furnish details about the bill brought by them.

Mr Patnaik urged the Centre to accept a recommendation of the meeting of programme directors to increase the incentive amount for each sterlisation operation, which should include provision for antibiotics.

The minister requested the Central Government to consider favourably the proposal to set up a separate cell in the Health Directorate and Family Welfare monitoring offices at district level, to handle claims of green card holders.

Law likely on sex determination tests

NEW DELHI, April 27 (UNI): The government is considering enactment of a legislation tests, the minister of state for health and family welfare. Ms Saroj Khaparde told the Rajya Sabha today.

In another reply, the minister said a team of the U.N. Fund for Drug Abuse Control (UNFDAC) recently visited India to work out modalities for a loan to be advanced for building up an infrastructure for drug abuse control.

The Marcotics Control Bureau is the coordinating body for the flow of funds from UNFDAC to the various concerned ministries.

CLIPPINGS OF ARTICLES ON SEX-DETERMINATION TECHNIQUES

‘I WOULD LEAVE IT TO THE MOTHERS’

Vasant Sathe on why sex test shouldn’t be banned

BOY or girl? That has been a pleasantly worrying question swelling, along with the proud female underbelly in the minds of expectant parents once the pure signa of their most creative act appear. A minor teat called amniocentesis, which has marred that divine nine-month mystery. is now being used for a diabolic purpose: killing of female babies in the womb.

In India, ‘boy or girl?’ has been an agonising question for many parents who consider sons a God’s gift and daughters a curse. It is such people who rush to the numerous one-room clinics, cheekily publicised as ‘well-equipped laboratories’, on the first intimations of the stirring life. Some of these clinics in Delhi offering amniocentesis tests give outrageous financial advice: “Spend Rs 300 now and save Rs 15 lakh in 20 years.” Rs 500 is the fee for the sex determination test; the bigger amount is what the parents will have to spend on the education and marriage of a daughter. The medical practitioner displays the board: “Boy or girl? The answer in a few days.”

And parents have been queuing up before the ‘laboratories’ to know the sex of the baby in the womb and kill it if it happens to be female. So amniocentesis has become a dirty word. But the fact is that this test is used in more civilised countries to identify genetic disorders in unborn babies and to abort the foetus if the disorders are beyond correction. For instance, couples with a mentally retarded or mongoloid child in the family consider it essential to take the test.

The test is a simple one. Fluid is drawn from the sac that holds the foetus and the chromosome structure is examined. The sex of the baby can be known from this test, but that is only incidental.

Clinics in various towns in India collect the samples and send them to speltcialist in Bombay or Delhi for the test. But the test is not to be considered fool proof There have also been cases of samples being mixed up and wrong results being handed out.

The practice of female infanticide in the womb has been noticed among Asians In England, too. Knowing the Asian mentality and intentions when taking an amniocentesis test, doctors in the UK ore now keeping the sex part of the test a secret.

The test had generated a storm in India, because of its misuse, and various enlightened groups have called for its ban. The issue has become more controversial with the recent statement of Union Energy Minister Vasant Sathe that there is nothing wrong In picking out the female foetus for abortion. In the following interview Sathe argues why he is against banning the teat. Excerpts:

QUESTION; *How do you justify your stand on amniocentesis test*

ANSWER; This question of amniocentesis or test for knowledge about the condition and nature of the foctus is a scientific subject. It must be debated in a national and scientific manner. It cannot be discussed if approached in a hysterical or fanatical attitude.

Medically, it is an advance in knowledge that enables the medical expert to know if the foctus is likely to grow into a normal baby…knowledge cannot be banned.

Sociologically, motherhood to the right entirely of the female and hence the right to decide about giving birth or abortion should be primarily and ultimately that of the mother alone.

There is the family planning aspect. Family planning presupposes planned parenthood. That in turn means the right, and now even a duty, of each parent to restrict the number of children they would bring to life. It also logically implies that the mother in particular and the parents in general should have a right to have a balance of sexes in their limited number of children. When we are propagating that a couple should not have more than two children, will it be reasonable to say that they must not wish to have one girl and one boy even if it is medically possible to have one girl and one boy? If the answer is that a planned parenthood does not include choice of sex of the child, then, I am afraid family planning itself will lose its meaning. Can any society dictate, and that too by law, that even after having three daughters in a row, parents should have no right to beget a male child even if it is possible medically?

I think such an approach would be irrational. This whole subject, therefore, needs to be discussed and debated in a rational, logical manner, without bias or prejudice.

If the parents are given the right to decide the sex of their child, only the female foctus will be aborted.

I say, therefore, give the right to the mother.

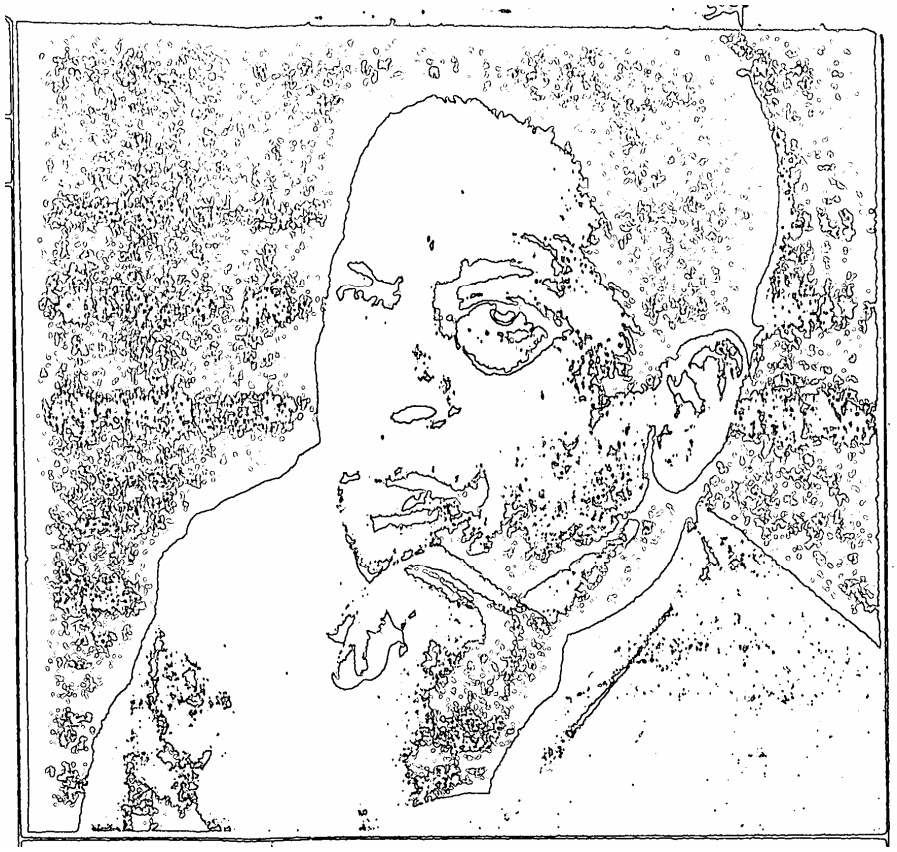
But it is possible for the mother to decide and stick to her decision?

Why not? Ultimately who is objecting today? The mother-in-law. It is nor so much the father. It is first the mother, than the mother-in-law and then comes the father. I know so many fathers who would welcome a daughter.

I do not think there are many such fathers in India

I am one. My son is another. We have never looked at our daughters differently. My first child is a daughter. My first grandchild is a daughter. I am so happy.

You are probably talking of an educated elite group of people.



Can any society dictate, and that too by law, that even after having three daughters in a row, parents should have to beget a male child even if it is possible medically?

These are seen even among the uneducated. I will tell you why people want a son. Sociologically he becomes an asset. That is why they want a son. You cannot condemn them for wanting a son. I agree that if a man who has a son wants to abort a female foetus just because it is female, he may be refused. I would say, whenever a question whether there should be termination of a female foetus comes, it should be decided by a medical and social council. I don't mind even if they are all women.

A massive set-up will be needed to decide the cases. And what will decide in favour or against the abortion?

Each case should be decided on merit. Once the sex of the unborn child is known, let the facts—whether in that family there are enough daughters—be examined and then the desire of the parents to want a male child should be considered on merit.

There will be a lot of loopholes in what you suggest. The father may tell a lie…

After all, both the father and mother will come to a doctor. A doctor in that locality. The medical council can appoint a committee in that locality consisting of doctors. Let it be referred to that body and if it says "all right, allow" then do so. But banning test of the foetus, I think is an extreme attitude.

Nowhere in the world is the test used just for finding out the sex of the child.

Nowhere in the world is it banned.

Will this not disturb the girl-boy ratio?

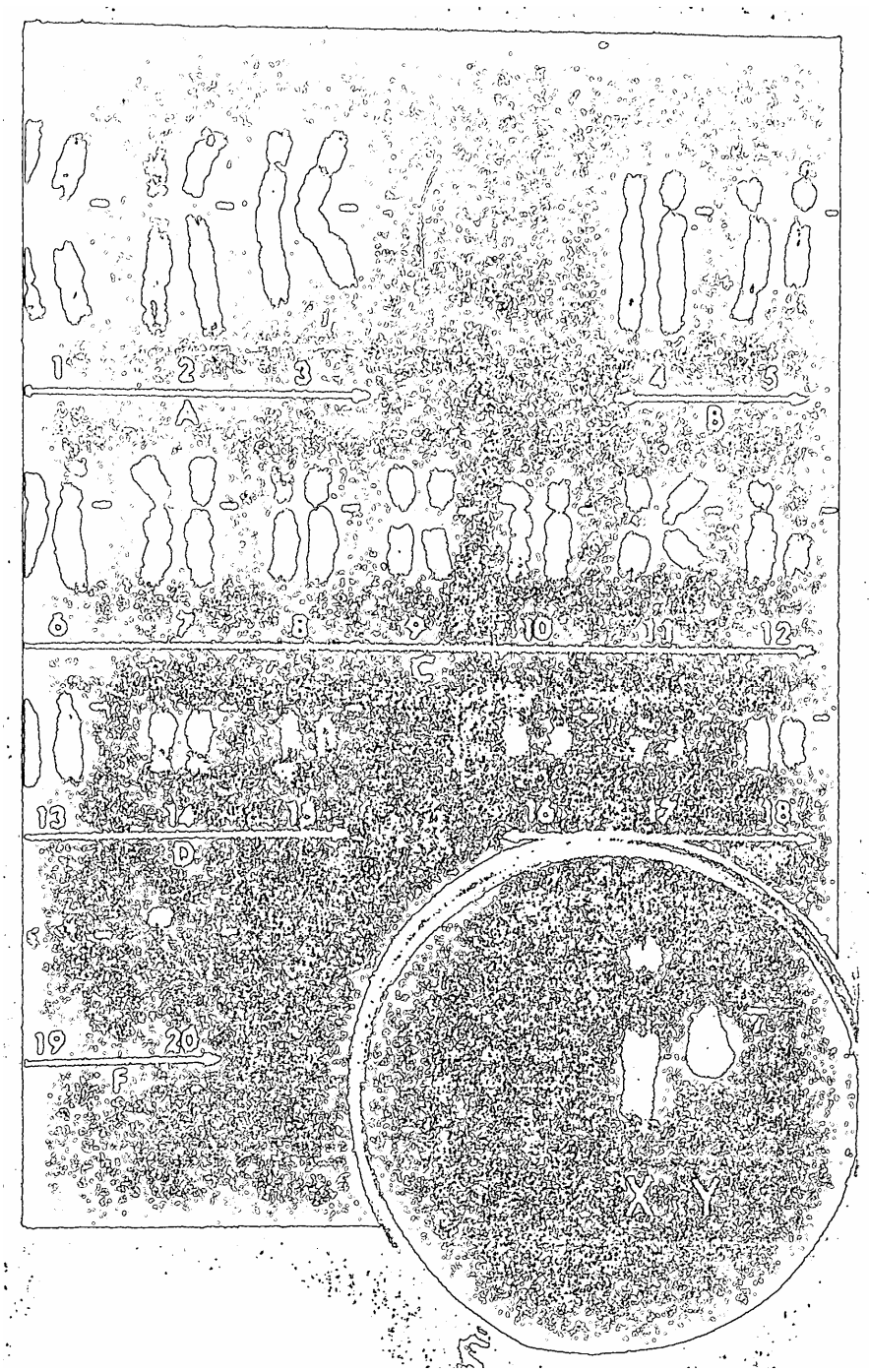
Are we going to dictate to all citizens that they must be satisfied with only daughters? I am willing to leave this entirely to a body of mothers. I trust the mothers. Let them decide what they want leave it to them.

So, according to you, in certain cases killing the female child even before she is born—female infanticide—can be allowed.

The moment you say abortion should be allowed and legalized, it presupposes abortion of female or male on the choice of the mother.

-RASHMI SAKSENA

"They say that history news nins out of ideas, that the worst is yet to come"



Chromosome pairs of normal human male: The chromosomes XY indicate the male sex of the cell; in India this information from a foetus can decide its future

This country, with its inexhaustible capacity for abvism, never seems to run short of ideas in perpetuating its primitive myths. It took very little for one Dr Bhandari in Amritsar in 1979 to adopt modern genetic technology to gratify a deep-rooted social urge — that of bringing forth male children. The New Bhandari ante-natal sex determination clinic advertised its services in

the newspapers and the masses took to it like they did to video. Clinics sprang up in Amritsar, Kanpur, Meerut and Bombay with bill-board signs — choose the sex of your child'.

Amniocentesis, actually a technique for chromosomal analysis of the foctus to detect genetic abnormality, is now at the center of a controversy in India involving feminists and sociologists, medical practitioners and ministers. What is at make is the future of one half of the population.

The current round of the controversy has been sparked off by Union minister Vasant Sathe carelessly remarking in December at a function in Nagpur that there was nothing wrong with amniocentesis as a means of sex determination. Since then much has appeared in the media on the issue: on its demographic implications, on its morality, its effect on the status of women and on whether a nation-wide ban on the test is desirable.

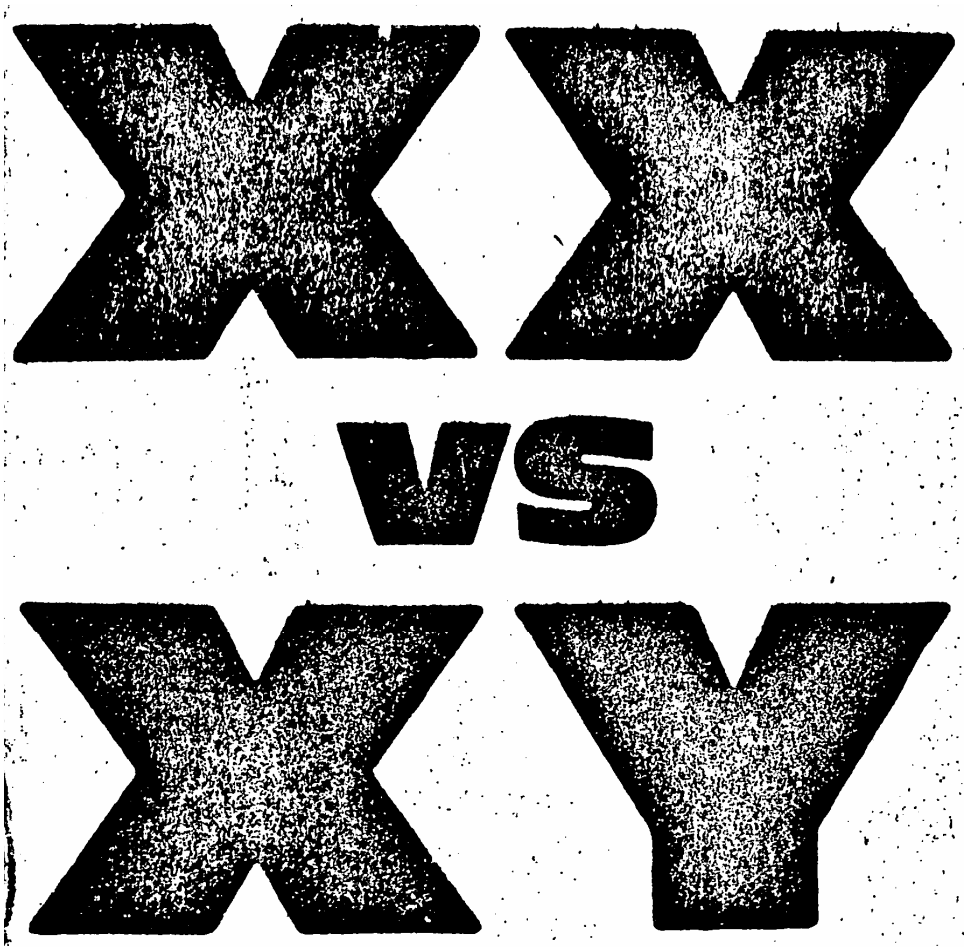
The debate which has been going on for some time now acquires added significance since a ban on sex determination (currently in force in Maharashtra) in likely to be extended to the whole country. No less significant is the gruesome triple suicide of three sisters in Haryana following the birth of a male child in the family after the abortion of two female foetuses.

In the present controversy, the issue is obscured by a lot of red herrings that keep popping up as the controversy grows with argument and counter argument. At one level, there is the ongoing debate between the feminists and scholars like Dharma Kumar on female infanticide and female foeticide. On the other, the 'silent majority' has, courtesy Sathe's pronouncements, begun to articulate its views on the beneficial effects of sex-determination and a decreasing female population.

The Forum against Sex Determination, (represented by, both women and men) which has spearheaded the against the use of amniocentesis argues that the existing sex-ratio already adverse for the female, will worsen. Fewer women will mean a further docline in the status of women, increased abduction and rape, and fewer women to fight for women's rights. The arguments in favour of sex determination are that 'demand and supply forces' will improve the lot of women, dowry would cease to be a problem and women's chances improve on the marriage market:

All these are rather in the nature of what Marg calis 'Robinsonades'. The way is somewhat specious, in the nature of a projection into the future which does not take into account so many other variables. One could to well project a not-too-fantastic scenario where men, reeling under the 'greenhouse effect', do not have the to rape, or a situation where energy resources are so depleted that there is not enough kerosene to burn women.

Another red herring is abortion itself. Till today, no social group in India has seriously argued that aborting a foetus is Yet some feminists (not the Forunr) argue that aborting female fetuses is 'foeticide' and a form of 'femicide'. This details the debate again, since the ethics of abortion, and the effect of repeated abortions on a woman's health obscures the real issue. A little clarification here may simplify matters. Aminocentesis (conducted in the fourteenth or fifteenth week of pregnancy) is gradually being replaced by the Chorion Villi Biopsy (CVB) test as a means of sex determination This test, conducted through the vagina, consists of taking a tissue sample from the outside wall of the placenta in the eigth to tenth, week of pregnancy. A subsequent abortion can be conducted within the twelfth week. by means of the suction method, and is therefore as 'safe' as any abortion performed today. To raise the issue of abortion and women's health here is to open another can of worms altogether.



Amniocentesis, or more precisely, sex-determination tests followed by the aborting of female foetuses is now at the centre of a major controversy. Feminist groups have been campaigning against this practice which has become increasingly popular as a means of ensuring the birth of a male child. A ban on sex determination tests is in vigour in Maharashtra and is expected to be enforced at a national level. But does it have to take state Intervention and more suicides in Haryana for ordinary men to see themselves as mere mortals, asks SHOBA SADAGOPAN

The ethical core of the current debate to really around the questions: the right to choose and the Fole of the state in achieving social consensus This debate is neither abstract nor Hegelian, since it involves the minds of a certain progressive section of the intelligentsie and the bodies of half the country's population, or almost. It must not be forgotten that at the heart of the matter lies an idea or a value system — that a woman is worth as much as a man. This idea unfortunately is held only by a few. The social consensus holds that it is not so, that one male child is worth several female children, alive or dead, give and take a few suicides more, whatever the social-economic origins of certain cultural values, it must be recognized that these stand relatively free of their origins and must be tackled as such. It could hardly be argued, for instance, that behind every incident of eveteasing, there is an adolescent worried about how he is going to pay dowry for his future female offspring.

Contempt for women is so universal and all pervading that it assumes in dependence as a value in itself. It makes little sense to talk of a future degradation of the status of women, it's bad enough today. The women's movement has done much by way of campaigning for women's rights and consciousness raising. On the question of sex determination too, there has been an active campaign. But a simple, ban, without a package deal of other demands, poses a problem. This particular piece of legislation is not comparable with others that give women equal rights. A ban effectively infringes on the right of another person over her body — it is generally agreed that women who undergo abortion following sex determination also actively desire male children. A ban which imposes the values of a minority. however enlightened, on the rest; of society implies that some people are' more free than others of conditioning that their values are better and must be accepted. If the majority cannot be persuaded to believe what is 'good' if it can enforce it at all? The danger in feminist 'bolshevism' is not in the content of the ideas, it lies in the arrogation of the right to choose on behalf of those who would choose otherwise.

Lest it be thought that the argument here is in favour of sex determination or male supremacy, this. writer would like to clarify that more male children in all likelihood means more lumpen *laundas* on the struts and at the *paanwallahs*, and lots more little Rajputs waving swords at sati Sthals. The point is there is enough of that today and no legislation changes the thought behind the act. There is a cultural tyranny in society that valorises the male over the female. Can a. ban prevent greater joy at the birth of a male child?

It is argued that legislation acts as a deterrent in that it de-legitimises certain practices in society. In whose minds? The ban on sex determination did not delegitimise anything in Mr Sathe's mind. The fact is that the law-makers' and the law-enforcers, are part of .the primitive, but majority, consensus. As long as this is so, values are not likely to change

This is where the role of the state comes in. It theoretically embodies the collective will and has the power to decide what constitutes the 'greatest good of the largest number', and even use violence to that end. The feminists, it is argued, can put pressure on the state in the matter of sex determination and enforce the greater good (an equal sex-ratio) on the larger number. it makes better sense then, to argue that the even greater good consists in framing such a law that takes the issue of sex-ratio; into consideration on the one hand, even while not tampering with the right of a. woman to have a male child (which seems to be the desire of the greater number). If for reasons of. Population control, there is a two-child norm then surely the state can impose a balanced sex-ratio by insisting that every family must have one female and.one male child? Mr Sathe can have no quarrel with that or with more drastic means of population control.

If ideas cannot be fought with ideas, and the law is the only recourse, then it is as well to demand a more comprehensive piece of legislation, and that will change ways of thinking. Its effectivity and arbitrariness are no more questionable than, say, a simple ban on sex determination tests.

CENTRE URGED TO ACT ON SEX TEST ISSUE

THE Forum Against Sex Determination and sex pre-selection today demanded a clarification form the central government on its stand on the issue of the use of amniocentesis for female foeticide

In an open letter to the Prime, Minister, the FASDSP condemned the support extended by the Union minister for energy, Mr Vasant Sathe, to female foeticide recently and demanded to know when the government would introduce the bill banning prenatal sex determination tests.

At a function in Nagpur on February 10, Mr Sathe had ridiculed the legislation enacted by the Maharashtra government banning sex determination tests and stated that the law would never be implemented as there would "always be people wanting to abort unwanted daughters."

He had also remarked that there was nothing wrong with an adverse sex ratio as the demand for women would increase if their number decreased.

The letter pointed out the fallacy of this argument, and said that the declining number of women in Uttar Pradesh, Madhya Pradesh, Bihar and Rajasthan had only worsened their condition.

Violence against women had increased and the discrimination stemmed from the low status women had in society, it added.

"Does the government think female foeticide is a solution to dowry and other problems confronting women? Would the government advocate eliminating the poor in the country to eliminate poverty?" the letter queried.

The FASDSP said the draft legislation of the bill banning sex determination tests should be made available to the people for public discussions.

The bill should not seek to punish women provide for the tests to detect genetic abnormality to be carried out in public hospitals only, it stated.

The FASDSP has also sought the inclusion of voluntary organizations in the vigilance and other committees which would be involved with the implementation of the bill.

SEX TESTS ENDANGER WOMEN'S RIGHTS

By VIBHUTI PATEL

In her article (December 9) titled "Ban on sex test clinics unwise," Dharma Kumar, in support of her thesis, provides certain arguments which we, at the Forum Against Sex Determination and Sex Pre-selection (FASDSP), Bombay, feel obliged to respond.

Her first observation is, many people instinctively feel that such clinics should be banned. Here we would like to clarify that those who are asking for a ban on sex-determination tests leading to female foeticide have scientifically and logically proved that female foeticide is harmful to society from all angles - demographic, social, cultural and moral. In tact from 1976 onwards, the women's movement in India has consistently campaigned to create public opinion against this form of femicide so that Indian women don't become endangered species within the next SO years. The survival of Indian women is at stake and here we have an eminent scholar urging legislators, feminists and others to reflect more on these issues, before taking hasty action. Oh! dear Rip Van Winkle! We have had enough reflection; now the time is for action, to stop this menace.

Social Awakening

Dharma Kumar also feels that "one cannot cure social prejudices merely by legislation." Yes, we are aware of this. But, at the same time, legislation banning S.D. tests would definitely take away respectability attached to this scientific advancement aggressively advocated by our doctors with crude, anti-women advertisements such as "better Rs 500 now. than Rs 5 lakhs later" (contrasting the test fee with the dowry), S.D. tests — solution to dowry problem." Doctors who are boasting openly in seminars/workshops and public forums like demigods will be Forced to do it under the carpet, a punishable crime. We do not believe that such a ban will stop female foeticide, but it will definitely strengthen the hinds of social reformists/women's groups to bring the culprits to book. Moreover, the social reform movement has asked for a series of laws by banning inhuman practices such as sati, dowry and child-marriage in spite of its ineffectiveness. Would Dharma Kumar say that there should be no law against these anti-women practices, and let there be only the law of the jungle which will expose Indian women to all means of victimisation with the help of those barbarous customs? To us, legal reform can also be a means for social awakening.

Her advocacy of contraception makes her desperate when she blurts out "A country whose desperate need is to persuade the poor (who often have the largest families) to practise birth-control." Does she know that the average Indian woman has to produce 6 2 babies to see at least two of them reach adulthood? Poverty, higher child mortality and absence of state security for old age explain why poor people have more babies. Without solving this structural malady, just by reducing the female population, you can't control population! As it is. the female population has continuously declined from 1901. even in the absence of scientific techniques of femicide!

Further, she asks: "Is female infanticide preferable to female foeticide?" The Forum says both are bad and should be fought vehemently. But it is distressing to note that our economists/policy-makers like Dharma Kumar succumb to their cynical logic which leads them to victimise the victim. Because Indian women are ill-treated, killed at birth (female infanticide) and later for dowry, or are forced to commit sati, why not kill them before they are born? By this logic, she

can also recommend that to get rid of poverty, malnutrition, famines, just throw bombs on shanty towns and Ret rid of the poor!

After giving a detailed description of the degraded and subordinate status of women, the discrimination and indignities girls and women face in Indian society, she contradicts herself by retorting, "How can they deny women the right to decide whether or not they will give birth to a daughter?" Do Indian women have any decision making powers in the real sense of the term? The proponents of "voluntary sati" also talk like Dharma Kumar. Instead of confronting patriarchal power that makes women betray their own sex, she resorts to victim-baiting!

Her advice to the Forum "to raise the social status and life expectancy of the female children who are born in India" is well-taken. That is exactly what the women's movement in India is working for. But the irony of our academicians and policy-makers is such that they are strengthening patriarchal powers with their intellectual input. Even when they propose a solution it is as absurd as training women to become nurses and publicise the fact that nurses can easily emigrate to the U.S. She sees it as a powerful substitute for dowry thereby implying that dowry is god-given and can't be eradicated. This shows her utter disregard for the social reform movement

Campaign Need

Since 1976, women's groups have expressed their anger against pre-natal sex-determination tests like amniocentesis, that result in selective abortion of female foetuses. In response to the protest actions by women's groups, the tests were stopped in the government hospitals but this gave way to widespread commercial use of this test by private gynaecologists and laboratories. By the mid-eighties many more techniques for femicide came into the medical market. To avoid ethical arguments concerning abortion at an advanced stage of pregnancy, some well-known doctors started advocating sex pre-selection (S.P.) techniques introduced by Dr Ronald Ericsson.

As these tests are popular in Gujarat Maharashtra. Madhya Pradesh, Uttar Pradesh and Bihar, it is important to launch a nationwide campaign against the abuse of the S.D. and S.P. tests. In a society where systematic neglect and discrimination against daughters are so deep-rooted, posing a crisis for the survival of women, these issues need to be taken up in their socio-cultural, economic and political contexts.

What we need is cultural alternatives through jathas to contest social myths concerning sons and daughters, launching an anti-dowry movement promoting positive images for women to be self-sufficient and assertive, providing for education and employment, and placing these in the matrix of the women's liberation movement against every form of oppression, exploitation, ill-treatment and injustice.

For Dharma Kumar female foeticide is a powerful method of lowering the birth-rate without coercion. But the Forum asks: "Is not female foeticide a coercion?"

SATHE SUPPORTS AMNIOCENTESIS

THE Union energy minister, Mr Vasant Sathe, has come out in support of amniocentesis to determine the sex of a child before birth.

"What is the justification for banning sex tests 'when abortions are allowed," he asked while speaking at a function here yesterday evening.

Mr Sathe. who released a souvenir brought out in memory of the actress Smita Patil, questioned the efficacy of the Maharashtra government's law banning amniocentesis. The government enacted the law after several women's organisations vehemently opposed sex tests, which they said, were undertaken to kill female foctusus.

Mr Sathe said that while abortion was done for an unwanted child amniocentesis was done for an unwanted female child both were similar in nature. According to him, implementation of the law against amniocentesis test was impractical If men outnumbered women, the latter would be in much demand, he remarked.

Mr Justice C. S. Dharmadhikari of the Bombay high court, who presided over the function, disagreed with Mr Sathe.

Suprisingly, Mr Sathe spoke in defence of amniocentesis tests at a function where a social worker was honoured with a prize of Rs 2,500 for his crusade against such tests.

Meanwhile, feminists Dr Rupa Kulkami. Dr B. L. Bhote and Mr Pandharinath, in a press note, condemned Mr Sathe's utterances at the function.

LOGIC OF SEX TESTS FEMINIST DISTORTIONS

By DHARMA KUMAR

My argument that test which predict the sex of a child should not be banned even though they arc likely to lead to the abortion of female foetuses (*The Times of India*, December 9, 1988 has provoked violent reactions, particularly from a certain type of feminist

Fundamentalists of all kinds are making rational public discussion of policy increasingly difficult. Their intemperate abuse frightens the less fanatical from entering into public debate, and since only their views are heard they exert an undue influence on legislation.

One must begin with the fact that at present a woman can legally have an induced abortion for virtually any reason. Whether this is desirable may well be argued, but that is not the issue here. Feminists support this policy but also hold that it should not be permissible to abort a foetus if one knows it is female since they cannot ban the abortion, they want to ban the tests. But if an act is not wrong in itself, why should the motive behind it make it wrong?

Casual Manner

Some justify this attitude on the ground that sex-selective foeticide is a sign of prejudice against women (as indeed it is), and society should show its disapproval by enacting a law against it Laws are passed nowadays in an alarmingly casual manner. Few ask if the law will actually reduce prejudice, nor what other effects it will have, nor if it conforms to basic principles of justice. This kind of action is pure self-indulgence, but can be very harmful to others.

The second and stronger justification is based on the assumption that women themselves do not want to abort daughters, but they are forced to do so by their husbands and in-laws, and since the tests reveal the sex of the child they will lead to coercion of women. This assumption is not supported by the demographic literature I have seen. And yet it has already been written into the law. The Maharashtra Prenatal Diagnostic Techniques Act restricts the use of the test to certain categories of women, but if a woman outside these categories undergoes the test, it is not she who is punished, but her husband and his family. Since the punishment prescribed is I to 3 years rigorous punishment, a miscarriage of justice is no small matter. There is another problem with the Act. Amniocentesis can also provide knowledge of genetic disorders, and women outside the specified categories can also give birth to children with serious genetic defects — so the Act discriminates against them.

Particular Problems

The feminists are certain that they know what women really want if they behave differently it is because men have forced them to do so. They think of woman in the abstract, not of the particular problems of individual women But to understand the issues involved, let us take two women, Abha and Bela. Both want 2 sons and 1 daughter. Abha is lucky with her first 3 children and stops there. Beta's first 6 children are girls she only slops after her 7th child, a son. is born. With tests she will abort female ioetuses and stop with 3 children, and voluntarily. This seems to me a very disagreeable form of birth control and I would wish her to be indifferent to the sex of the children. I would applaud those who can persuade her and her husband to act' differently. But since the law permits abortion, her action is no) and should not be illegal. If Bela is poor, I feel all the more strongly about allowing her action, not because I am against the poor, but

because if Bela cannot afford daughters, and does not want them, she should not be forced to have them. What gives feminists (usually well off, and with two or less children) the right to insist on Bela having daughters, because that in fact is what banning the test amounts to? Why is my attitude hostile to the poor — do the poor themselves prefer someone who insists on their having daughters they do not want and cannot afford?

Another accusation made by my critics, that I am against Muslims, and indeed all minorities, is even more absurd, but since some feminists believe women are a species, one should not be surprised by any nonsense they utter. The communal issue is in fact quite irrelevant ,

They have also distorted my arguments on the female death rate. In some parts of India female children are severely neglected, and an unknown number of girl babies are killed. In a very detailed study of the prosperous district of Ludhiana it was found that if the family already had a daughter, further daughters died at very much higher rates than their brothers. Remarkably, this excess mortality increased when the mothers were younger and better educated (Monica Das Gupta. Selective Discrimination Against Female Children In India. Population and Development Review, March 1987). If such people practice sex-selective foeticide, the female death rate will fall. Also, death in child birth — a major cause of female mortality — may be reduced. I do not argue that because girls are neglected female foetuses should be aborted, t am saying that if supporters of the ban give as a reason its overall effect in increasing the ratio of men to women, they should take into account the offsetting reduction in the female death rate.

Let me stress that I agree that an unbalanced sex-ratio is undesirable and that the prejudice against daughters is deplorable and ought to be fought I differ with the feminists about the means. We must not deceive ourselves about the difficulties of removing the prejudice against daughters, especially in the north. It is rooted in our culture, and reinforced by the structure of property rights. Nevertheless, there are many measures which can be taken against it Special emphasis should be placed on seeing that all girls go to school. Why do not feminists set themselves the target of seeing that this is done in the next 10 years?

Special Pension

If necessary, special inducements should be given, such as extra scholarships for girls. Some measure more effective than the Dowry Prohibition Act should be taken so that the girl herself gets a title to her share in her parents' property, and not her. husband. This law should ensure that her rights are made clear to her at the time of her marriage Parents who do not have sons can be given a special pension by the state — this will remove one major reason for wanting a son. Many other forms of persuasion are available. A powerful play or novel may well have more effect than a law, especially an ineffective one.

In conclusion, the ethics of allowing abortion freely are complex, and humane people can differ on them. But this is not the question. So long as induced abortion is legal, as it is in India, the case for a ban on sex prediction tests is very dubious. The only admissible argument is proof that it leads to husbands forcing their wives to undergo induced abortions which the women them selves do not want There certainly arc such cases but they do not seem to be the male Unlike my critics, I know I may be wrong, but proof must be provided by sociologists and demographers who are trained to examine the evidence objectively. The feminists rightly object to men telling women what to do with their bodies, but the feminists themselves have no greater right to prescribe what other women ought to want, and to enforce their views by law. Maternalism is no better than paternalised

FEMALE FOETICIDE NO DEMOCRATIC RIGHT

By NALINI TANEJA

DHARNK Kumar's article advocating amniocentesis for sex-determination (TheTimes of India, December 9, 1988) is not a reflection of the idiosyncracies of an isolated individual. What has appeared in newspapers by way of "Debate on women's issues this year" almost takes one back to the days of the "age of consent bill" But it must be noticed that all this is not a simple renewal of the debates of the 19th century, which our nationalist leaders thought they had settled once and for all.

There is a systematic and orchestrated attempt by a section of our intelligentsia to intervene at the present conjuncture of social and political crisis to put forward solutions which are essentially right wing. One can remember that not long ago there appeared in the columns of the *Indian Express* an article by an equally well-known intellectual, Ashish Nandy, giving sympathetic social sanction to sati Dharma Kumar's article against a Central legislation on amniocentesis belongs to the same category.

He argues that since there is a widespread and deep-seated prejudice against women, their marriages are so I expensive and they cannot provide the economic security or the ritual usefulness that a son can, their futures, if horn, are bound to be bleak. He then goes on to give a number of facts regarding different aspects of discriminatory practices against female children, and draws from them his logical conclusion that if their lives are so bad it would have been better if they had not been born at all." As a matter of further consideration he points towards the high incidence of female infanticide in this country. Since a large number of female children is going to be killed anyway, he says, why waste the nation's resources and emotions in nurturing new female members. Let the society concentrate on those who have survived.

Social Darwinism

As an eminent social scientist he must know that this is nothing but social darwinism in its crudest form. In the name of raising the social status and life expectancy of those who are born, he is prepared to sanction not only that many more be not allowed to be born at all, but also that society continue to not want them. There is no reason otherwise for his very categorical statement on why one should force poor people to have daughters they so strongly do not want, and may ill treat or neglect?

A close look at this statement reveals yet another aspect of his reactionary perspective. It is, according to him, the poor who most grudge the birth of a girl. This is nothing but ignoring the social reality, that among the really poor a girl is as much a source of labour as a son, and their marriages are not so "expensive" nor rituals among them taken so seriously as to create such a social pressure against the birth of a female child. In any case, the percolation of the prejudice, to the extent it has reached the poor, does not find indulgence for the simple reason that they cannot afford the high price it entails.

He is, however, even prepared to take his argument to far more dangerous dimensions when he says that sex determination tests are increasingly being used "by precisely those classes whom the family planners want to reach." And he is quick to link it up with "abortion as a means of birth control" which is a "national policy". This is nothing but the justification of elimination of those whom the society considers unwanted. One shudders at the social and political implications of such a justification.

Artisan Families

As an aside, one must tell him to learn a little more about the artisan families he refers to. How do artisan families make two ends meet, if they do 'not transmit their skills to daughters also? More concerned with their "rights over their bodies", he has not bothered to know how much of craft production in India is dependent on the women of the artisan families.

Wondrously the selective destruction of the female foetus seems to him no different from the right of a woman over her own body! Right wing radicalism precisely thrives on such confusion and perversion of democratic rights to advocate solutions which are essentially anti-people. Let us not forget fascism was offered as a radical critique of capitalism which was symptomatically very real Just as masses of people were deliberately made a tool in the perversion of their societies, so too women are to be made ready tools in destroying their own species by presenting female foeticide as an exercise their democratic right

The contempt that Dharma Kumar shows for progressive legislation is equally reflective of her neoright radical perspective. The widespread and deep-seated prejudice against women is too deep-seated, according to her, to be wiped out by legislation. It would, by banning the practice, drive all such evil social practices underground. Presumably what she then wants is that discriminatory practices against women be not considered crimes at all, so that they may be all carried on above board and, for that reason, be easily commitable and without fear of retribution. Granted that legislation is not *sufficient* to curb any social evil, but then why have laws against sati, or child marriage, or female infanticide, or dowry, or specifically against deaths related to dowry?

Not Just Evils

She deliberately refuses to consider the fact that sati, female infanticide and child-marriage are not merely evils to be condemned, they are crimes, and they are crimes precisely because they are against the law of our land, or of any civilized society for that matter. The legislation of any society is a reflection of the values cherished by that society, it is also an indication of the direction towards which the society wishes to advance. Law is an instrument of social transformation, and particularly in backward societies, it is a prerequisite, a condition for social change interestingly, at a time when the left and democratic circles of this country are clamouring for progressive social legislation protecting the rights of the oppressed sections and minorities, and for governmental responsibility for implementing all such legislation, here is our "modern intellectual, Dharma Kumar, not just sanctioning the non-implementation of legislation, but also absolving the government of all responsibility for discriminatory practices against women, by not having them designated as crimes in the first place.

The celebrated intellectual that she is, she must surely know what a high percentage of the world's people live below the poverty line. She must also know that a bigger percentage than that lives in despair of ever having a fair future. Following her central argument that those who have no bright future to look forward to may as well not be allowed to be born, will she permit a logical extension of her argument to advocate mass sterlization of all the poor of the world? Will she advocate genetic engineering and selective breeding in the name of procreation of only what is considered best and most wanted, and the elimination of those unwanted? She further asks very morally, is female infanticide preferable to female foeticide, as if at least one of these we are bound to sanction and accept! By her logic not only are women to bear the brunt of the

country's family planning programmes, but the women among the poor must doubly bear it so, because they have even less to offer their female child. How is that different from the Jews having had to bear the weight of Nazi Germany's social and political crisis?

BAN ON SEX TEST CLINICS UNWISE

By DHARMA KUMAR

Most Indian parents feel that they must have at least one son, to provide economic security and for ritual reasons. They also feel that they cannot afford to have more than one or two daughters, largely because marriages are so expensive (these and other statements in this article are necessarily broad generalisations)

Consequently, if they are willing to plan their families (a big "if"), and if they can forecast the sex of an unborn child, they are likely to abort female foetuses, especially if they already have one or two daughters.

One technique available in India is amniocentesis, or the extraction and testing of amniotic fluid from the uterus, and private clinics carry out this test (other techniques have been discovered, and more undoubtedly will be). Many people instinctively feel that such clinics should be banned, since they encourage the widespread and deep-seated prejudice against women in India; some also argue that, by encouraging female foeticide, there will be too few women in India. Indeed, this is already the case. In most parts of the world there are more women than men, since .women live longer. But the reverse is true in India: women have a lower life expectancy, and there are fewer women than men.

Consequently many and probably most of our legislators, draw the conclusion that such tests should be banned. It is in this spirit that 13 women's and social organisations formed a forum in Bombay recently, and decided to press for central legislation which would regulate the .toe of all future techniques of sex determination and sex pre-selection, restrict pre-natal tests like amniocentesis for the detection of genetic disorders only, and in very limited cases where the sex of the child needs to be determined. It should be restricted to government hospitals. (*The Times of India*, November 25, 1988).

Similar demands have been made in other parts of India too, and since ministers have already spoken out against the clinics laws may well be passed banning them. But let me urge legislators, feminists and others to reflect more on these issues, before taking hasty action.

Side-Effects

The first argument against a legal ban is that it will not achieve its purposes not will have undesirable side-effects. One cannot cure social prejudices merely by legislation, especially in countries like India where the governmental machinery is weak, and corruption rampant It merely drives the banned actions underground, and leads to harassment and bribe-taking by government servants, if indeed any action a taken at all The forum against sex selection has asked for strengthening the implementing mechanism so that the Act did not remain a (SIC) paper legislation, but they have not told us how this can be done.

More inspectors and larger fines may simply mean more harassment and larger bribes, if the desire not to have more daughters is strong enough. Does anybody believe that anti-dowry laws have stopped the payment of dowries? The IAS officers who are supposed to enforce these laws themselves accept enormous dowries and openly admit that they do so. Moreover, the impact of such legislation will be greatest on the poor. The rich can pay for discreet clinics and abortions, while poor women will be forced to bear unwanted children. And this in a country whose desperate need it is to persuade the poor (who often have the largest families) to practise birth control.

So legislation will not be effective. In any case it is not in my opinion desirable. Moreover it is not a logical demand for feminists to make. There are people who object to *all* forms of birth control on principle, and it is logical for them to object to sex determination tests, since these, tests may lead to abortions. But feminists generally feel very strongly that women should nave the right to abortion. It is the woman's body and it is for her so decide whether or not she will give birth.

How can they deny the woman's right to decide whether or not she will give birth to a daughter? It may be argued that it is not the mother who decides to abort, but her husband or parents-in-law, but it is not established that mothers are generally reluctant to abort female foetuses, and indeed there is some, evidence to the contrary.

Apart from feminists, many of us favour freely available abortion as a means of birth control, and this is infact the national policy. Sex determination tests are increasingly being used in some parts of the country, and by precisely those classes whom the family planners want to reach. The forum points and that, in a backward tribal district Dhule in Maharashtra, marginal farmers and landless labourers borrow at high rates to make use of these tests. Should one force poor people to have daughters they so strongly do want, and many ill-treat or neglect?

Social reformers should ask them-selves what can they do to raise the social status and life expectancy of the female children who are born in India. For an unknown number of baby girls their lives will be exceedingly short The Bombay forum itself mentions female infanticide, without asking the obvious question: is female infanticide preferable to female foeticide? In fact, far more baby girls may be killed even now than we are aware of. If the family feels strongly enough that the baby girl is unwanted, it can be disposed of without the births being recorded, Or it can be neglected to death: for infants up to four years 47 per cent: more girls than boys die in Punjab

Economic Factors

The females of a poor family, receive less food than their husband and brothers, and when they fill ill they are less likely to be taken to a doctor or hospital, or given medicines. On the whole girls are likely to work for much longer hours, that their brothers. And one must remember that poor children may start work from as early as five years of age.

In artisan families, where the family trade is carried on at home, both boys and girls help, but skills are transmitted only to the boys, since girls will marry and leave the family. Thus handloom weavers teach their sons, not their daughters, how to weave. Girls are much less likely to be Sent to school. The disparity between male and female literacy is particularly sharp in some northern states. And conditions continue to be hard in adult life, especially after, marriage. Death in childbirth is the gracefully high, and in many parts of India, the life expectancy of women is disgracefully low. In U.P. for example, it is about 46 years and rural women there may have a little expectancy of less than 40.

Social reformers will retort that they are perfectly aware of these facts that sex selection is one aspect of the prejudice against women, which is why they wish to ban it. But their, real is misplaced. Instead of bringing more unwanted girls into the world surely it would be better to improve the lives and status of those who are born. The most urgent need is to see that all girls go to primary school at least India's record In this field is inexcusable. Yet the middle classes are amazingly complacent about it

Countries in Africa and Asia with fever administrative and other resources than India have managed to send all their children to school Why cannot we? Why do voters trade unions and political parties accept the government's lame excuses its failure to fulfill a constitutional directive? Educated girls will be much less willing to put up with neglect and ill-treatment and will be better able to earn a living provided the education is useful. Public health facilities should pay particular attention to the needs of women and girls.

The pay and status of careers for which girls are particularly filled should be raised. Nursing is an obvious case in point Why not give better training higher degrees and national awards to outstanding nurser? (And publicise the fact that nurses can easily emigrate to the U.S. — That should be a powerful substitute for a dowry).

Banning amaiocentesis clinics will be ineffective (except in raising the costs of tests) and, if is is effective, it will choke off a powertul method of lowering the brith rate without coercion. That India has fewer females than males is not because fewer are born but because they are so such worse treated.

SEX DETERMINATIORI TESTS RAMPANT IN GUJARAT, GOA

BOMBAY, Nov. 26. — Clinics offering prenatal sex determination tests are flourishing in Gujarat and Goa after their ban in Maharashtra, according to members of a forum campaigning against the tests.

Mr. Ravindra R.P. of the Forum Against Sex Determination and Sex preselection, told reporters here that people were now making a bee line to these States after the Maharashtra Legislature passed legislation in April this year banning the tests.

He said random checks with gyneacologists in cities of Gujarat like Ahmedabad, Valsad, Baroda and Surat had shown that the number of such best had increased manifold in recent times.

The Maharashtra ban was prompted by a report that 42 out of 50 gynaecologists interviewed during a random survey, performed the tests which were invariably followed by female foeticide.

Mr. Ravindra said a recent study in Gujarat showed that 50,000 female foetuses were aborted during 1987 after tests like amniocentesis an chorloavilli biopsy, which take just 30 minutes and cost as little as Rs. 75.

Forum members said some clinics in Maharashtra still performed the illegally, but the fee had shot up to Rs. 15,000, making them out of the reach of the poor.

LAX ENFORCEMENT: Besides, the legislation was not being implemented in the absence of administrative machinery for its enforcement

Maharashtra Health Secretary D.T. Joseph admitted the Governments' delay in appointing a committee for the implementation of the "Maharashtra Regulation of Use of Prenatal Diagnostic Techniques' Act, 1988."

Under the Act, the State Government is required to appoint an appropriate authority to register select prenatal diagnostic centres for conducting the tests only in cases of genetic diseases, congenital anomalies or the like. The Government is also to appoint a vigilance committee for surprise checks on the clinics to ensure that the tests are not misused for sex determination.

Mr. Joseph said the Government would appoint the committees soon and implement the law.

Forum members said if the law was not enforced strictly and immediately in Maharashtra, it would weaken the case for a nationwide ban on the tests.

They are now campaigning for a Central law, arguing that prejudices and biases against women leading to the tests exist all over the country.

BORN TO DIE

Female foeticide with the help of the sex determination tests is flourishing in Gujarat, reports Nachiketa Desa:

THE LATEST advances in medical science have helped revive with a vengeance an early 19th century evil custom in Gujarat. The practice of killing female infants, which was confined to the Kanbi Patidar community of Central Gujarat and the Jadejas (Rajputs) of Kutch and Saurashtra in the last century, is now being followed all over the state in the most sophisticated manner by anyone who has the means to pay for sex-determination tests and abortions.

"The penchant for adopting the latest technology and at the same time holding on to archalc value systems are seemingly contradictory traits but they account for the widespread practice of female foeticide in Gujarat. So when pre-natal sex-determination was made possible through various tests like amniocentesis, chorean bilipsy and ultra sonography, doctors in Gujarat were among the first in the country to introduce these techniques. Soon it became a roaring business with general practitioners, gynaecologists and pathologists forming well-established cartels. These tests cost anything between Rs 150 and Rs 1,500.

According to Dr Lata Shah of the Forum Against Sex Determination and Sex Pre-Selection (FASDSS). a recently formed group of social activists, at least 10,000 cases of female foeticide are reported from Ahmedabad alone every year. The figure is a conservative estimate arrived at by the FASDSS during a sample survey conducted recently.

The incidence of female foeticide in Gujarat must be staggering judging from the mushrooming pathological clinics in all the major cities and morusall townships of the state, published by signboards and advertisements in vernacular dallies. The business received a books after neighbouring Maharashtra enacted a legislation earlier this year regulating the use of medical techniques of pre-natal diagnosis so as to prevent their misuse for sex-determination.

The Gujarat Government, which announced in the last session of the state assembly that it intended to bring a Maharashtra-type legislation, appears to be dragging its feet. The government has appointed a three-member experts' committee to examine the Maharashtra Act and suggest necessary amendments.

Committee member Zubeda Desai, who is also a member of the FASDSS, wants the Maharashtra legislation to be followed in 1080. But she is apprehensive that the state government may succumb to the pressures of a powerful group of doctors who thrive on sex-determination test clinics.

Politically there is a rare consensus on the issue. Both the ruling Congress-I and the Opposition want a ban on pre-natal sex-determination tests. Chief Minister Amarsinh Chaudhary and Health Minister Vallabhbhai Patel have been advocating the ban publicly. The BJP's women's wing too has demanded introduction of a legislation on the pattern of Maharashtra. But these are all public statements. On the social action front nothing significant has been done to create public awareness against the evil. Only a beginning has been made by various women's organizations to oppose the practice. Since its formation in May this year the FASDSS has organized seminars and workshops on the subject. In Baroda, a group of women social activists called the "Sahiyar" has carried out a survey on the extent of female foeticide.

While groups opposing sex-determination tests on ethical and medical grounds do want a legislation banning the practice, they concede that mere law cannot put an end to the evil custom. There has to be a mass awareness on the subject to make the law effective.

The protagonists of sex-determination tests argue that female foeticide is an effective family planning device. They also champion the women's right to choose the sex of the baby she will give birth to "There is a demand for sex-determination tests and we simply meet this demand." Remarked a leading pathologist of Ahmedabad who proudly announces on the signboard of his clinic that couples could chose the sex of their unborn baby.

Leading the group of gynaecologists who are lobbying against the proposed legislation is Dr Neema Acharya, a member of the state's Family Planning Council. She charges that the social activists are mixing up social issues with medical issues. She says a ban on sex-determination tests would make them more costly as they would be done surreptitiously.

Dr Acharya disagrees with the Contention that sex-determination tests leading to female foeticide would drastically change the male-female ratio in the state. But historical evidence does suggest that the number of women per thousand men did go down to as low as 750/1000 in Central Gujarat during 1850-60 when the practice of female infanticide was widespread among the Patidars. Female infanticide was so common among the Jadejas of Kutch and Saurashtra region during the early 19th century that in 1805, Col Alexander Walker, who was on a diplomatic mission to the region, could find only five Jadeja families who had saved their daughters from death.

With law allowing medical termination of pregnancy and scientific techniques making possible pre-natal sex-determination, people are going to opt for female foeticide on a much larger scale that the Patidars and Jadejas — and that was without any social stigma tached to the practice.

SEX-DETERMINATION TEST: GOVERNMENT IN A FIX

The Government finds itself in a piquent situation in checking the misuse of sex-determination tests. For, while it is aware that these tests are being used for 'selective abortion', which is an offence under the Indian Penal Code, it cannot take action unless It has definite proof.

The Law Ministry has taken the stand that no action can be taken either against the parents or the doctor(s) unless a nexus between the best and the subsequent. abortion is established. And this is what the Government has not been able to do. Though abortion is resorted to in over 90 per cent cases after ascertaining the sex of the child, the doctor invariably certifies that it (the abortion) had to be done because of the failure of the contraceptive device says a note circulated by the Ministry of Health and Family Welfare at the meeting of State Health Ministers in New Delhi on May 30.

The note admits that all efforts of the Health Ministry to find out the extent of abuse have falled. It says that the Ministry sent three outers — one each m 1977, 1982 and 1965 — to all State Health authorities directing them to take action under PC against anyone indulging in pre - natal sex determination test for sex-determination' but 'not a single case of sex-determined abortion was reported.' 'Nor was the massive machinery of the State Governments able to provide lists of clinics and doctors thriving on this pernicious practice, except from Maharashtra, Punjab and Haryana'

Maharashtra law: Maharashtra has since passed a law regulating sex-determination tests. Under this, sex-determination facilities will be available only on medical advice in government approved institutions. The Union Government wants other States to follow the Maharashtra model, and at the health Ministers' conferance a pointed reference was made to this. The State governments were urged to consider the 'desirability' of introducing the Maharashtra-type legislation In view of the 'sensitive' nature of the issue.

Officiate in the Ministry of health and family welfare any that for quite some time the Government has been concerned about the wide spread abuse of sex-determination tests, and In February 1967 It set up a committee to suggest steps to check this. The committee, which to yet to give Its final report, is expected to come up wan guidelines for preparing legislation on the subject It has also been asked to suggest norms for setting up genetic clinics, and for giving approval to a clinic for conducting pre - natal tests.

Flourishing business: A meeting of medical experts, administrators, legal experts end representatives of voluntary organisations, called by the Government some time ago, had suggested a ban on aminiocentesis tests, and said that these should be allowed only on medical advice and in-institutions specifically licensed for the purpose. It had also suggested that advertising facilities for such tests should be made a 'penal offence.' However, little seems to have been done to follow up these suggestions, and sex-determination tests continue to be a flourishing business.

In Delhi alone, there are several clinics which openly advertise that they conduct sex-determination tests, and some make no bones about the fact that the idea is to help people get rid of the foetus if it happens to be female', says an angry activist of a women's organization. She says that the Government is 'quibbling' when it says that it cannot do anything because there is not sufficient proof to proceed, against the culprit The moment you call a test a sex-determination test It to obvious what it entails. There are people who openly admit that they underwent such a test because they did not want to have another daughter. What is needed is the will to check the scanned, she points out.

DOUBLESPEAK ON SEX TESTS

The maharashtra regulation of Use of Pre-natal diagnostic Techinques Bill is a classic example of how 'progressive' legislation can fall short of its stated objectives. The Bill, passed by both Houses of the State Legislature this session, nearly two years after health and women's activists launched their campaign against the widespread misuse of amniocentesis by gynaecologists for the detection, and subsequent abortion, of female fetuses, is seen by many as only a pyrrhic victory because it establishes a principle but cannot put on end to a terrible practice.

Essentially, the Bill seeks to 'regulate the use of pre-natal diagnostic procedures like amniocentesis or any other present or future techniques' for the purpose of detecting genetic disorders or congenital abnormalities and to 'prevent the misuse of such techniques for pre-natal sex determination leading to female foeticide.'

It proposes to do this by the constitution of state appropriate authorities and vigilance committees to monitor the centers providing this facility and by the imposition of penalties, including the withdrawal of the erring doctor's licence.

A major drawback, say critics of the Bill, is the fact that the gigantic task of monitoring the clinics and centers-in Bombay alone, more than 85 per cent of gynecologists perform amniocentesis for the purpose of sex determination, while 'SD clinics' have protiferated even in small towns like Dhule–has been let to authorities which simply cannot cope with it.

Says Dr Amar Jesani, medical researcher with the Foundation for Research in Community Health (FRCH). "The nature of the regulation is such that it involves a lot of paperwork and supervision and control. It is a massive task and impossible to accomplish through the use of just the existing stay."

Despite the promise of people's, especially women's groups' participation, the appropriate authority and the vigilance committees are packed with 'official' members. Only two representatives of voluntary organizations have been allowed on those bodies, without specifying the nature of the voluntary organization, or whether or one of them has to be a women's organizations, points out Prakash, assistant aditor of The Economic and Political Weekly, "What we are asking for is a far wider representation of voluntary and women's groups," she adds.

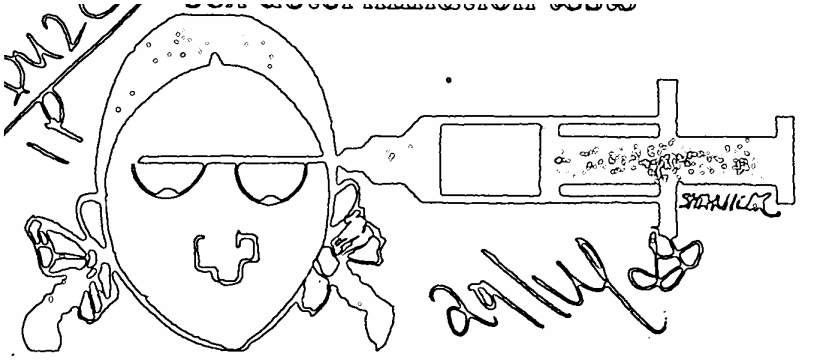
Apart from these administrative lacunae, the Bill's apparent capitulation to the medical community has alarmed activists. An important clause sought to be included by activists at the draft stage, but later dropped, is that a geneticist and a paediatrician should ratify a gynaecologist's decision to perform amniocentesis or chorionic villibiopsy for the purpose of sex determination.

"The government has obviously dropped this clause because of pressure from the medical fraternity, since it is difficult for a gynaecologist to have his/her decision seconded by two doctors from different disciplines." Says Jesani.

Thanks to this omission, he says, a woman has merely to cite abortions in the first trimester, which are so common that they are never investigated anyway as the reason for undergoing a sex determination test. Gynaecologists misusing these tests have simply to explain to their patients that this is the way to get the test done and, with specialist opinion made unnecessary, they are free to function with impunity.

A key area in which the government appears to have succumbed to the 'medical mafia' is in the imposition of penalties. Section 19(1) prescribes rigorous imprisionment of up to three years and a fine of up to Rs 5,000 to doctors, owners and employees of centers who contravene the

provisions of the Hill. Sub-sections (2) prescribes similar RI and a fine of up to Rs 3,000 for those who seek the aid of these centers for a sex-determination test, and sub-section (3) three months' RI for 'whoever contravenes the provisions of the Act.'



Bharati Sadasivam talks to feminists and doctors about the new Bill passed by the Maharashtra Assembly to ban sex determination tests

But the fine prints in Section 20, which says that 'every offence punishable under sub-section (2) or (3) of Section 19 shall be cognizable, non-bail-able and non-compoundable.' Thus, the doctors indulging in malpractices cannot be arrested and held without bail, while those who seek their services can, says Jesani. The minimum fine of Rs 1,000 is also too low to be an effective deterrent.

Section 21(3) in the chapter dealing with offences and penalties is another manifestation of the Bill's 'doublespeak,' adds Jesani. It empowers the court, 'for adequate and special reasons,' to impose a sentence less than the minimum prescribed uncer the Bill.

Similarly, while the Bill presumes that the woman has been compelled to take the test, it nullifies this positive feature by imposing a fine of Rs 50 on her for doing so. Also meaningless is the clause–Section 4(4)–specifying that the female patient's written consent should be obtained 'after all the possible side-effects and after-effects are explained to her.' "Even gynaecologists don't know enough about the side and after–effects-so what can patients he expected to know?" asks Prakash. It would be far more constructive, says Dr Satish Threwala, a practicing gynaecologist, if all the known consequences of the techniques are printed in regional languages and given to each of the centres which offer the facility.

But, according to RP Ravindra, a lecturer and health researcher who was a member of the committee appointed by the state government to study the problem of female foeticide and suggest a draft legislation, several of these failings will be taken care of when the rules are formulated. "The loophole in Section 4(2)(iii), which says that one condition for taking the test is a 'history of exposure to drugs, radiation, infection or hazardous chemicals,' has been plugged by amending it to read 'potentially teratogenic (harmful to the foetus) drugs…' so that a woman cannot say she wants to take the test because she has had viral fever, for instance."

The rules will also state that a woman submit documentary evidence of the condition/s requiring her to take the test: that a gynaecologist's decision to this effect is seconded, within the four weeks that amniocentesis can be performed, by two other doctors; and, most important, that the sex of the foetus should not be revealed even when the test is performed by a licensed person for a licensed purpose in a licensed place.

The government decided to drop its original proposal to permit the test only in government-run centres to pre-empt private practitioners likely to challenge the ban as an infringement on their right to practise medicine. In which event the Act can be stayed or struck down by the courts.

"The Act will not totally stop the misuse of these techniques, but will give the government licensing powers." Says Ravindra. "It has been a difficult and frustrating task to pass this Bill, protecting the interests of women who genuinely need to take the test and preventing malpractices by doctors. It is only a beginning: but a good beginning

Ravindra, Who is also a member of the eight-member central committee on amniocentesis and sex determination, stresses the need for immediate central legislation on the issue. Referring to Minister of State for Health Saroj Khaparde's statement to this effect in Parliament today, he says the government has already lost a lot of time – the then health minister S Krishna Kumar's announcement to pass a law two years ago was not followed up a cabinet decision. "How is the time to act, before SD cliates come up in Rajasthan, Uttar pradesh and Bihar, where the sex ratios are dangerously low."

CAMPAIGN AGAINST SEX TESTS PAYS

By Teesta Setalvad

The Maharashtra Government move in introducing the Maharashtra Regulation of Pre-natal Diagnostic Techniques Bill, 1988 and this having sailed through the Vidhan Parishad yesterday, follows nearly five years of intensive campaigning by women and other voluntary groups.

The Bill, will now come up before the State Assembly on April 16 for discussion, before it is sent to the Capital to gain Presidential assent and becomes a law.

Despite the Central Government's repeated assurances of a country-wide legislation to regulate the use of pre-natal diagnostic techniques in a bid to control the alarming rate of the (selective) abortion of female fetuses, this legislation will be restricted to Maharashtra alone.

This limitation could seriously hamper the effective implementation of the proposed law. The easy availability of these tests, even for the selective abortion of female foetuses in neighbouring States like Gujarat, apart from large numbers of clinics mushrooming in Punjab, Haryana and New Delhi, could make violations of the proposed Act even simpler.

Under the bill, the registration with State Appropriate Authority (SAA) of any clinic, providing the facility of pre-natal diagnostic tests is a must. Both medicines and the clinics providing tests that disclose the sex of the foetus are culpable under the Act. The onus of proof, under the Act is on the husband of the woman and his family. If, in a specific case, it is proved that the woman participated in the decision to abort, a penalty of Rs. 50 on her, as abetter to the offence, has been provided.

The statement of objects and reasons of the Bill tersely sums up the main difficulty likely to emerge in the implementation of this law, apart from inherent loopholes already existing under the Medical Termination of Pregnancy Act, 1971 (MIP Act).

These aims and objectives state that many a medical practitioner in breach of professional ethics and unduly tempted by the lucrative business possible indulge in the indiscriminate termination of pregnancy.

The public debate that preceded reflected, as strongly as ever, the pathetic neutrality of the medical profession on the issue. Whereas more "glamorous" questions like euthanasia drew the most eminent into the pros and cons of the debate, the selective abortion of female fetuses which claimed at least 78,000 female fetuses between 1983 and 1986 left top medicos unmoved.

Pre-natal diagnostic tests, being carried out for the abortion of female 'foetuses alone reaped in income for the medical profession. Even at Rs. 500 per sample taken, even in remote rural areas, the tests had become a lucrative commercial proposition.

Under the proposed Bill, three years rigorous imprisonment and Rs. 3,000 in fine is the penalty for any guilty medical practitioner. Once such a complaint against medicos and the clinic or laboratory is investigated by the SAA (following vigilance by Vigilance Committees or individuals), a criminal case before a Metropolitan or Judicial Magistrate need be filed for eliciting this penalty. Thereafter. i.e., after canceling the registration of the clinic etc., the SAA can through a letter to the Maharashtra Medical Council, urge cancellation of the registration of the particular medical practitioner himself.

Even though the culpability of the medical profession has been clearly outlined in the proposed legislation, loopholes that already exist in the MIP Act, 1971, enabling a woman to have an abortion under certain conditions, could be exploited with the result that the abhorrent practice continues unabated.

If effective vigilance is not mentioned and these tests continue to be available at underground centres for the explicit purpose of sex determination, it is virtually impossible for the offence to be detected at the stage at which a woman comes in for the medical termination of pregnancy, that is abortion. Under section three of the MTP Act, wherein a woman can undergo an abortion for 'failure of contraception' it could be easily misused by unscrupulous medical practitioners in league with family members of the woman, who have already managed to get a prenatal test, revealing the sex of the foetus, done.

Under the proposed legislation itself, unscrupulous medical practitioners could misuse some of the conditions necessary before performance of a pre-natal diagnostic test and instead detect the sex of the foetus. The requisite conditions are: the age of the pregnant woman be above 35 years; history of two or more abortions or foetal loss; history of exposure to drugs, radiation, infection or hazardous chemicals, family history of mental retardation or physical deformities such as spastic, deaf-mute child; any other condition as approved by the Appropriate Authority.

Any one of these conditions could be misused by members of the public, in connivance with the medical practitioner when the actual aim is the detection of the foetus.

Another lacuna exists that can be blatantly misused by medical practitioners to escape the clutches of the law. This was revealed during the proceedings of case filed by the Mahila Dakshita Samiti in the Bombay High Court in October 1986 (but which has lain in cold storage since) after 28 year-old Sunita Chaturvedi, mother of two girls, died as a result of an abortion that followed a sex-determination test. The victim's husband and two doctors are respondents.

Besides Making a strong case against the misuse of sex-determination tests, this case reveals how section eight of the MTP Act, that provides that no suit or any other legal proceedings can lie against any medical practitioners for any damage caused by any action 'in good faith', can be used as an effective shield for their unscrupulous acts by the medical profession.

Abortion, followed by illegal prenatal sex-determination tests, though carried out in the second trimester of pregnancy of the woman which is inherently dangerous, may have a doctor untouched it this section remains.

Any progressive legislation of this nature, in a patriachial society where male attitude and values dominate, must necessarily be backed up with Government schemes that encourage the existence of girl child families.

In the initial stages, the stress at every level must be on vigilance. Vigilance by women and voluntary groups, vigilance by local and state level Vigilance Committees that ensure a curtailment of this trend. Representatives of women and voluntary organizations will be given a place on the Vigilance Committees, and the SAA, enabling them to be part of the implementation of this proposed legislation. Strict enforcement of penalties – husband and his family – and on the medical profession is the prerequisite.

A provision in the Bill, likely to raise some controversy, is the one allowing for a fine of Rs. 50 on a woman as abettor to the offence, only if it is proved in a specific once that she participated in either having this test performed on her for sex determination or for getting an abortion done.

The SAA, under the bill, has also been entrusted with the job of cresting public awareness against the practice of female foeticide.

An internal code of medical either or specific provisions under general criminal law must hold medical practitioners specifically guilty of offences under this Act. If not, benefits that this legislation might otherwise give may be lost in the invitations legal wrangles that follow.

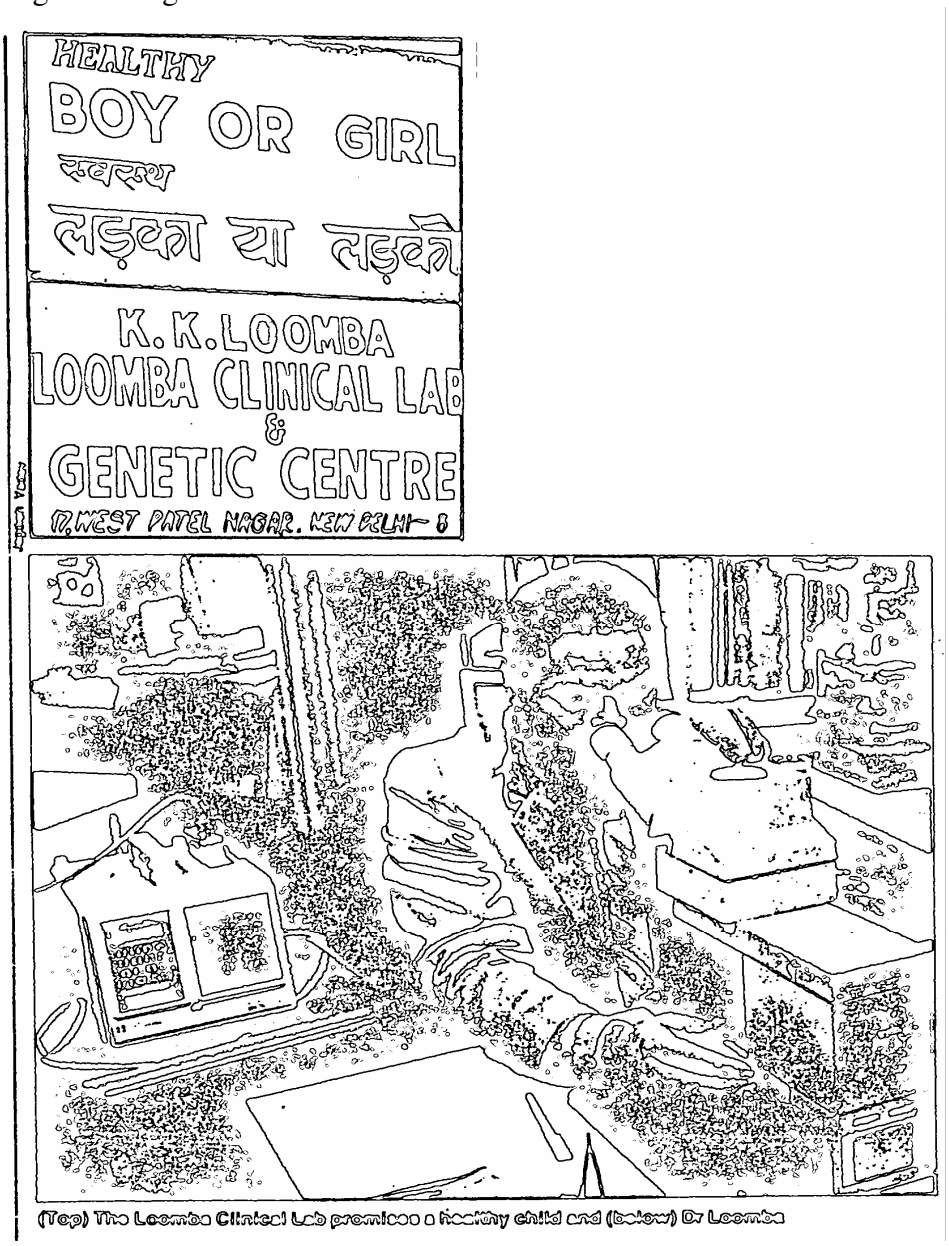
SPECIAL REPORT

Boy or girl?

The craze for a male offspring has led to a proliferation of sex-determination clinics throughout the country and a high rate of female foeticide. What can the state agencies do to prevent such clinics from flourishing?

Rama Agarwal had come with her husband from Agra, like she had two years ago, to get her pregnancy "checked". Only this time she had decided to undergo an abortion if she was carrying a baby girl. "My husband is an only child and my mother-in-law has told me they will adopt a boy if I do not give birth to one ," says the 35-year-old housewife. Last time, the result of the sex-determination test was negative but Rama could not muster enough courage to have a second-trimester abortion. The fifth child which she was carrying just had to be a boy.

While his wife sat quietly beside him, Razi Ahmed voiced strong views in favour of a test to find out the sex of an unborn child. The Ahmed couple had come from Patns on hearing that a scientific technique had made sex determination simple and safe in the capital. This was their fourth issue and Ahmed sorry his wife had not taken the test earlier; they could then have planned their family and not have had unwanted daughters. "In Bihar, people pity me because I only have daughters. The shock of having another daughter will be far greater than the shock of my wife having to undergo an abortion."



(Top) The Loomba Clinical Lab premises a healthy child and (below) Dr Loomba

The Loamba Genetic Centre in Delhi is a haunt for parents anxiously waiting to learn the sex of their unborn children. I Relaxing on rexine sofas for a test might be the daughter of a Union minister, wife of an IAS officer or even a practising gynaecologist. This morning Dr K.K. Loomba, who has migrated from Amritsar to be the first to start a sex-determination center in the capital, is late in arriving at the clinic. The patients are told he is at the site of the new clinic he is construcint in south Delhi. At around noon the bio-chemist walks into the waiting room. "Congratulations, you have a boy," he says, extending his hand to a Sikh merchant who has come from Faridabad to collect the report of his wife's test. The doctor also has a word with an income-tax official who has brought his wife to Delhi after two "unsuccessful" tests in their hometown, Hissar, in Haryana.

He then walks into his laboratory to hold consultations with a genetic expert on the sex of the 15-week-old foetus Mrs Kama Agarwal is carrying. The Patient has already been shown the register, where "boy" has been marked against her name. 'But an assistant says that Dr Loomba requires a second opinion on the case. Mr Agarwal, an accountant in a Birla company, anxiously awaits the expert's opinion, worried that the child might not be a son after all.Inside the laboratory, Mrs Agarwal takes the ultrasound test for the second time as the two doctors peer at the throbbing picture on the screen. The curled limbs of the baby and its genitalia come into focus. The couple return to Agra on the same day, assured that their fifth child is finally a boy.

Since sex determination was first introduced as a means of detecting congenital malformations in fetuses in 1984, amniocentesis and the lesser known chorion biopsy have become ready methods adopted by desperate parents who demand a "boy-or-girl" Answer for a price. Amniocentesis was first tried at the All India institute of Medical Sciences (AIIMS) to detect around 150 genetic disorgers in unborn children but some quick-thinking parents realized that the spin-off held greater value. The success of detection was around 95 per cent and under the 1971 Medical Termination of Pregnancy (MTP) Act, the abortion of an unwanted foetus was legal and safe. In one of the early surveys carried cat at the AIIMS, 48 of the 50 mothers who opted for abortions after amniocentesis did so after they were informed that they were carrying a female child.

The misuse of sex determination spread quickly through private practitioners. The first to capitalise on the technique of womb-tapping was Dr Prithipal Singh Bhandari who advertised his first sex-determination clinic in Amritsar. The Bhandaris had no qualms about propagating the advantages of sex by Choice. "Invest Rs 500 now and save Rs 50,000 later," was what they advertised. The blatant message that abortion of a female child would save parents thousands of rupees by way of dowry found a ready audience in Amritsar. Subsequently, sonologists (amniocentesis is supposed to be performed under the guidance of an ultrasound expert) tapped parents in other cities.

Acceptance of amniocentesis as a sex-determining technique spread from Punjab to other parts of the country within months. A decade later, what had initially been called a northern and, therefore, Punjabi penchant for male children caught on in Maharashtra and Gujarat. In Delhi, Dr Loomba, who was earlier an assistant to Dr Bhandari set up his own shop and began inserting cleverly worded advertisements in national dailies as well. Today, the facility is available in a sophisticated genetic centre in South Delhi's Hauz Khas as well as in a clinic meant for the lower classes, run by a retired army colonel in Shadipur depot. Astonishingly, by the early Eighties, doctors in small cities in Maharashtra and Udaipur in Rajasthan, for instance, began the test and sent samples of the amniotic fluid for testing through daily courier service to either Delhi or Bombay.

Women's groups and state health departments who began monitoring the effects of the sex-determination phenomenon have floundered on figures of misuse, but agree that it is Bombay which has emerged as the country's sex determination capital. Said Vibhuti Patel, who has been agitating against misuse of sex determination tests since they gained ground among the middle classes in Bombay and is now the spokesperson for the Forum Against Sex-determination and Sex-pre-selection, formed in 1986: "Earlier we had easy access to statistics but once the doctors realised we had mounted an anti-sex determination campaign, they clamped down." Patel said that despite the knowledge that prominent private hospitals in the metropolis had a flourishing business, they realised they might have a national problem on hand when they came to know that sex determination had started in the suburbs and the chawls of Bombay. Buttressed by the demand for these tests, sex determination centres sprung up in the slums of Vile Parle and Vikhroli. Posters advertising amniocentesis were pasted in local trains and BEST buses. There were reports too that pregnant slum-dwellers were borrowing from money lenders to pat for the tests.

During the course of a decade-long debate on the benefits and fallout of sex determination tests, various sets of figures have been circulated, most of them collected by voluntary groups. Amniocentesis, it is obvious from these figures, was being converted into a double-edged medical breakthrough in India. A technique which was indigenised to check one malformed child being born every 50 seconds is being used almost exclusively for female foeticide through selective shortlona. The most commonly quoted survey is one conduced in 1978-82 which reveals that 78,000 foetuses were shorted after amniocentesists tests in various parts of the country.

In the absence of an organised courtrywide drive against sex determination, social groups led by the Women's Centre branched out to Bombay and its suburbs to bring home the dangers of large-scale sex determination tests. The result of one such effort in a single hospital were enough to force the state health ministry into action. Run by a Jain trust, the Harkishandas Hospital was the first to organize a separate out-patient department for sex determination in Bombay. The findings by the women's Centre showed that 11,000 selective abortions had taken place in the hospital since 1978. In 1985, Harkishandas Hospital amniocentesists clamed to have performed 2,767 tests at an average of 25 tests per day. At another prominent sex detection clinio, Pearl Centre, run by Dr Dutta Pai, a retired director of family planning in Bombay Municipal Corporation 15,425 tests had been conducted between 1984-85. If the number of sex test centers on Bombay city alone was around 200, the extent of Selective abortions was surely a cause for concern.

In February 1987, the Foundation for Research in Community Health initiated a survey supported by the Maharashtra government which revealed that almost half a lakh female fetuses were aborted every year in Bombay. With such startling figures, the maharashtra government could no longer wish away the fact that Bombay had become the center for the callous practice of female foeticide. Commented D.T. Joseph, who took Over as the state's health secretary in November 1985 and has been campaigning against sex determination tests since" "Even as we began our work against sex-prediction we realized that we were tacking a problem in the free sector. We were not attacking a numerical but a sociological problem."

In the first week of this year the Maharashtra health ministry pre-empted a move for a nationwide ban on sex tests and declared that a Bill would be passed in the March budget session of the Assembly against these tests. The proposed Bill restrains the test from being carried out for any other purpose besides genetic check-up and makes sex-determination a cognizable

offence. Amniocentesis, Chorion Biopsy or any other method of detection would be practiced at government institutes like the Indian Council of Medical Research (ICMR) and licenced private clinics for women who have crossed the age of 35 years—after which chances of giving birth to a malformed child are greater.

With the ban, the Maharashtra health department has the task of setting up a monitoring machinery to regulate these tests in licensed centers. Commented D.T. Joseph who was himself seen protesting against aminocentesis on the streets of Bombay during a massive dharna staged on 14 November last year. “The ban took time in coming because it is difficult to prove the nexus between a sex-determination test and an abortion since both are conducted at different places. “Not everyone agrees with the ban. Declares Dr Pai of Pearl Centre: “The ban took time in coming because a sex-determination test and an abortion since both are conducted at different places. “Not everyone agrees with the ban. Declares Dr Pai of Pearl Centre: “Enforcement will make this the biggest form of quackery. By making it illegal, the government will, in fact, permit the business to become unsafe and be run like a racket.” Commented Dr J.B. Goel, an opthamologist who runs the widely advertised Goel Sex Determination Centre with the assistance of gynaecologists in Andheri: “The option of abortion which women have been exercising here is a very personal one. Male dominance in our society cannot vanish and once one channel is blocked, other channels will come up. The ban will give rise to more malpractices.”

That techniques of sex-detection had already been sold out to unprofessionals and unqualified persons is precisely one of the points raised against the tests. The Bhandari Centre in Amritsar first came in for criticism because wrong detections had taken place and in several cases woman had to undergo spontaneous abortions or developed complications after amniocentesis. In Amritsar the Bhandaris used to extract the VM (amniotic fluid) form the abdominal sac without the guidance of an ultrasound machine and the consequences were disastrous. Bypassing the ultrasound machine was taken up by hundreds of others as the popularity of the tests spread and the charges even dropped to Rs 100 in some clinics.

With the first step against sex-determination having been taken by the Maharashtra government, the comfortable camouflage of doctors who run sex-determination clinics has to be ripped off. In both Delhi and Bombay, practitioners have got away by cleverly inserting a line, “Know the health of your unborn child” in newspaper advertisements. The inference is obvious. In fact, quite a number of them are fly-by-right laboratory assistants and technicians who have not bothered to invest in ultrasound equipment. A common microscope and other instruments required for laboratory tests are transplanted overnight in ramshackle one-room clinics which have spring up in the slums of Bombay and in west Delhi. Vibhuti Patel complained that while all sex-testers boasted 95 per cent accuracy in the tests, a trial-and-error method was being resorted to by some quacks: “Boys have been born with needle markes in chawls because of careless pricking. The standards at some of centers in Bombay is shocking and suicidal for the mother and the baby.

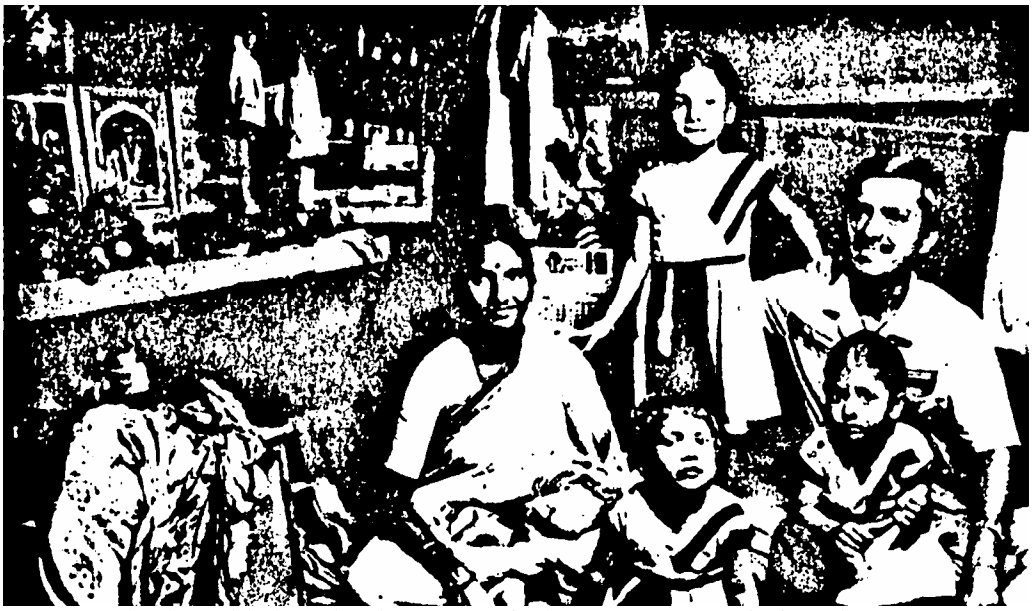
In Delhi, the Maharashtra ban created a ripple effect and for a start well-known amniocentesists disregarded the usefulness of the ban. Dr jaiswal, who runs a sophisticated Chorion Biopsy clinic in Haus Khas and also performs amniocentesis came up with a defence for sex determination tests for purposes of family planning: “It is only a wanted child which makes a planned family. My reply to people who talk about an imbalanced male-female ratio is that it will be good if fewer girls are born in this country. If there is a shortage of Women—all problems like dowry and bride-burning will finish.” South Delhi’s best-known sextester has

practiced ultrasonography for 17 years in America and Europe before coming to Delhi to introduce Chorion Biopsy as an option to amniocentesis. “If they ban the test in Delhi I will stop doing it but the whole business will go underground into the hands of unscrueous doctors,” he warned.

Such doctors cite cases of malecosessed parents to prove how harmful technical qualifications of sex-determining practitioners—but certainly those that meet the requirements are few and hard to find. Dr Hema Purandare of the Birth Defects Centre informed that while a complete genetic test of a foetus demands a three-week laboratory procedure, the result of a sex-determination test was given to patients the same day. “This is a super-specialised branch of medicine which is being grossly misused. Once the government imposes stipulations of qualified doctors and purchase of equipment, I am sure 95 per cent of these doctors will down their shutters.” Shiela Mehra, a reputed gynaecologistof the capital, said that ever since the tests had become common practice, cases of infected foetuses had come to her. “What is even more unethical is that qualified and practicing doctors are conducting these tests. In my opinion the licences of all such doctors should be cancelled.”

The Maharashtra ban on sex-determination is likely to be followed up by similar Bills being adopted by other affected states.

A sound followup action plan needs to be mounted simultaneously. “The onus of going in for the tests must rest on the parents first. The responsibility must not be that of the doctors alone.” suggested Dr Purandare.



Chouhan with three daughters: craze for boys(Inset): Dr. Poi of Pearl Centre

Said Dr Pai, “This is not a simple yes and no situation where you can change the attitude of the people overnight. It is the fear of insecurity among the women and not the tests which have to be got rid of.” Though a beginning has been made to curb the malpractices arising out of uncontrolled sex-determination tests, the social bias and discrimination against women continue, to dog the problem. In Bombay, there has been a shift of acceptance for these tests from the upwardly mobile to the rural poor. Traditional discrimination against female births is inextricable. Take for instance, a family like the one living in Dharawi, the largest slum of India. Narain Dutt Chauhan is a shoe-seller from the chawl and his craving for a son has not diminished after the births of four daughters: “In every house there must be a son. After my daughters leave the house I will be a lonely man.” The slum-dweller had not heard about the sex-detection tests as yet.

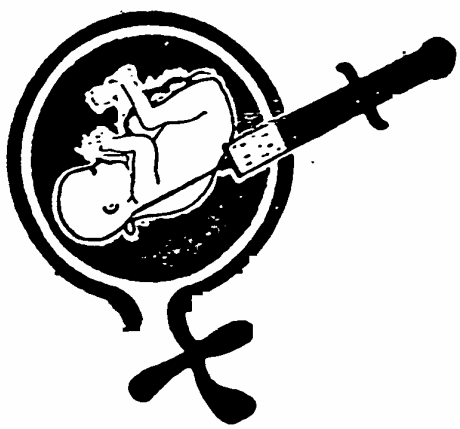
A DESU worker living in Narela, on the outskirts of Delhi, faces a similar problem of having four female children He had, however, heard of the option of abortion after detection. When his wife had her third pregnancy he had taken her to the Amrit Clinic on the G.T. Kamal Road and Dr Amrit Garg. Had reported that she was carrying a female foetus. The husband prevailed upon his wife to undergo an abortion but visits to local vaids had convinced her of a male child . When the baby was born, Dr Amrit Garg’s analysis proved accurate. Exactly after one year the DESU electrician was a would-be father waiting to take his wife to Dr Garg again. What if his wife refused to take an abortion this time, too? Prompt came the electrician’s reply: “Every time she cannot get away, with it This time I will make sure she has an abortion if it is a girl.”

What would such people do if sex tests are banned throughout the country and the murky business were to go underground? Most of the practitioners today feel that an underground network will be built up and the single immediate effect would be that the tests would become more expensive. Also, since ultrasound technology is being used today in various fields of medicine, it is feared many doctors who are practice amniocentesis and Chorion Biopsy will switch to detection exclusively through sonography. “How will you monitor the use of ultrasound throughout the coutrv? A machine with a good resolution can detect the sex of the foetus after 18 weeks. This will be the easiest way out” said a practising gynaecologist. For some

who are determined to ding on to the controversial test it may well be. Dr K.K. Loomba did not hesitate to build up a post-ban scenario for himself. “I am already training my eyes to recognise the foetus on the scan. Amniocentesis can become redundant technology.”

THE LEADER OF THE PACK

A senior doctor in a government hospital in Amritsar has an interesting story to tell. Last year, the state government, as part of a family planning incentive scheme, offered Rs 500 to every couple who had two children to come forward and be sterilised. There was a phenomenal response from one particular block in Amritsar. Subsequently, an official survey revealed that 80 per cent of those who had claimed the sum had more than two children. Why did they lie? “The others are daughters We don’t count them as children,’’ argued one of the beneficiaries obstinately.



Dr Kanan Bhandari frankly admits that she was bitterly disappointed when she had two daughters in a row. She felt that she had made a mistake

The story is illustrative of the obsession with a male child in north India. The obsession cuts across social barriers. Rich, poor or middle class, the birth of a boy is considered a matter of great joy while that of a girl, a time for sadness. Amritsar provides an interesting example because it is this once-bustling town in Punjab which gave a headstart to sex-determination tests in north India. It was a doctor couple from Amritsar—Dr Prithipal Singh Bhandari and his gynaecologist wife Dr Kanan Bhandari—who began performing amniocentesis. The clinic, New Bhandari Hospital, is where it started seven years ago: in a congested pocket of Amritsar near the Golden Temple.

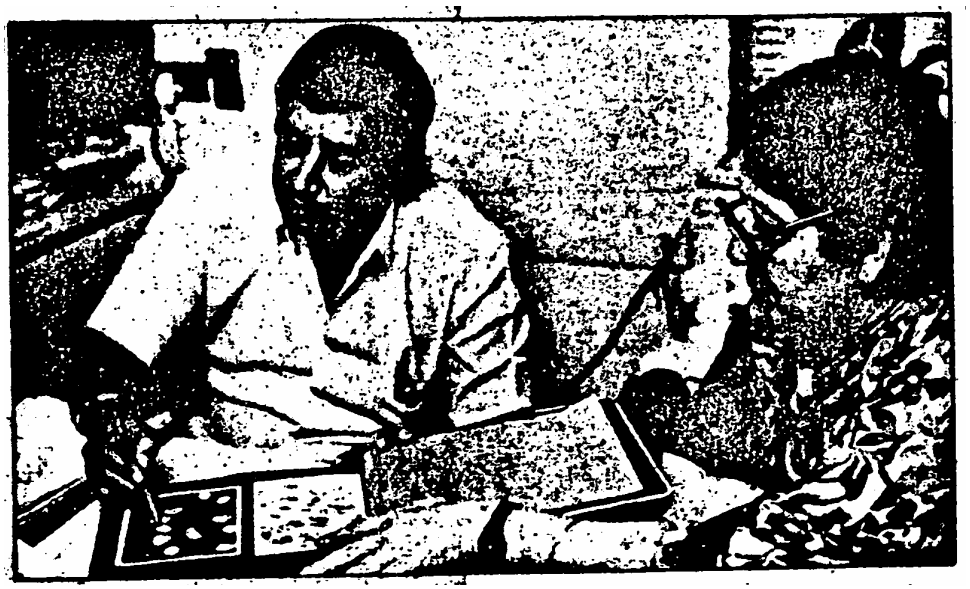
The idea of setting up a sex-determination dink came to the Bhandaris when they had two daughters in a row. Dr Kanan Bhandari frankly admits that she, as well as her husband (who is an MD from the Amritsar Medical College, one of the oldest centres of medical education in India) were bitterly disappointed and she felt that she had made a mistake by not going for a sex-determination test during her second pregnancy.

The clinic is a roaring success. Sex-determination is such a growing industry that many more clinics have sprouted in Amritsar and elsewhere. The Bhandaris are obviously gearing up for competition. Along with pictures of Hindu gods and Sikh gurus, a notice is prominently displayed on the walls in the waiting room outside the consulting chamber of Dr Kanan Bhandari

which offers 'free' ultrasound scan tests along with chromosomal studies aimed at figuring out the sex of the foetus. The notice is in English, Punjabi and Hindi to cater to the varied clientele. Addressed to the woman who wants to know whether she will have a boy or girl, the notice reads "...save Rs 400 and get ultrasound scan test (TV test) along with chromosomal studies..." The reason given is that ultrasound by itself is not dependable and at the age of four months the appearance of the foetus sex organs on ultrasound' can be 'deceptive' Hence amniocentesis and ultrasound do good business.

"We are Indians. We are not from the West where they think a son and a daughter are alike. If a couple wants a boy, who are we to advise them to the contrary," says Dr Kanan Bhandari bluntly. "Everyone has a right to have a complete family. If after having two daughters one does not want a third girl, what is wrong?" she asks. And then she cites her own example: "Any woman who is going to have a female child knows what to do. Her mind is made up irrespective of what anyone else may say. Even if she wants a girl, her husband or family may not want her. What use is a daughter after all? She does not stay with you. I am a doctor but I have not seen my parents for the last five years. If they want some medical help they may have to go to someone else."

Dr Bhandari obviously does not take kindly to her rivals and observes that while it costs "only Rs 600" to get an amniocentesis done in her dink, another doctor who itidentaly has been wooing away her clientele charges Rs 700 just for the scan. To top it all is the fact that scan centres which do sex-determination have sprung up id small towns and tehsils to Punjab.



In Amritsar itself there are five established scan centers which do sex-determination. The reasons are not far to seek as Dr.Arneja, the civil surgeon explained that the city has been one of the oldest centres of medical education in the country. Some of the best doctors in India hail from the Amritsar Medical College. The city has a large business community and there is a lot of money going around. Both the business as well as the landed classes who from a large segment of the Amritsar populace have a clear preference for the male child. Having a female child puts a woman at the receiving end of taunts from her family. Naturally, many women like to undergo a sex-determination test so that they can go in for an abortion in case of a female child.

Dr Tejinder Singh Dhillon, former head of the department of radiology, Amritsar Medical College, who set tip an ultrasound scan and research center three years ago in the city says that sex determination tests are done in his clinic. “selectively” -a contention which his rivals dispute. Sex-determination scans form a small percentage of his total work, Dr Dhillon observes, adding that personally be set was “sgainst natures”, “I have two daughters but at a Rotary club meeting two years back I was advised to start doing sex-determination tests in public is accept the equipment I have is one of the best and I have enough experience. Dr Dhillon says that his scanned is one of the best in the country that be has extersive of perpance and “this method ultrasound scanned was far safer and relable then amniocentesists women will go to if trained don’t do be argued The women’ organisations seem to have resigned themselves Five years ago a controversy about sex -determination tests and abortion of unborn girls exploded in Amritsar following three cases of errors in such tests by clinics in Bombay and Amritsar in quick succession. The matter went up to the courts but the clinics explained away the errors as “marginal cases”. As safeguards all he clinics today claim an accuracy between 90 to 98 per cent. New Bhandari Hospital which was in the centre of a storm clinics 98.2 per cent accuracy. The controversy soon over and women’s organisations in Amritar like the All India Woman’s conference plead that they have other more pressing problems as look and then women are educted nothing can be done. Even in Maharastra amniocentesists places the New Bhandari Hospital continue to thrfve. So problem New

PRE-SELECTION IS THE NAME OF THE GAME

With the prospect of the state ban putting a brake on their business, sex-test practioners in Bombay are already talking about switching to pre-selection techniques to see that the queues outside their clinics remain. “Even if sex-determination becomes illegal, how will you stop

people from opting for pre-selection?" demanded Dr Pai. There is more than one way of choosing the sex of the child before conception, he said. Everyone looks up to the British reproductive physiologist, Dr Ronald Ericsson, who is well-known for his pre-selection methods. In the 45 clinics franchised by him in Europe and America, he has claimed 70 per cent success.

According to available information, Ericsson kits which were earlier available for 350 dollars each, have been purchased by doctors in Bombay for around 110 dollars. The pre-selection involves the separation of X and Y chromosomes and the fertilization of the require chromosome in the over. Since the choice at sex is made before fertilization there is no need of an abortion and anti-abortionists can also used the method. The first no indigertise the Ericsson technique in Bombay was Dr H.R. Mehrs of the City Clinic, but as the state's health secretary informed, pre-selection there ran into technical problems.

METHODS OF SEX-DETECTION

- Amniocentesis: A method by which the amniotic fluid (which envelopes the foetus) of a pregnant woman is extracted and then subjected to tests. It is meant to be used for detecting birth defects but because a chromosomal study also reveals the sex of the child, is used for. sex-determination.
- Chorion Villers Biopsy: A more modern technique in which cells are extracted from the tissues surrounding the foetus through the cervix for a six chromatin study. This can be conducted between eight to 14 weeks of pregnancy (earlier than amniocentesis) but is only 70 per cent reliable.
- Ultrasound: A method of using waves to generate a picture of the foetus. A skilful doctor can judge visually whether the child is male or female.

FEMALE FOETICIDE

The author talks to doctors and women activists about the pros and cons of amniocentesis.

A SURVEY DONE IN 1982 BY THE WOMEN'S Centre, Bombay, revealed that out of 8000 abortions done in six city hospitals, 7000 foetuses were female. This is no accident of nature. The figure reveal a conscious decision taken by a large number of men and women; a decision that shows a distinct prejudice against the female of the species. There has always bean a sexist bias against women down the centuries, what is disturbing is that now the discrimination begins m the womb itself.

This alarming tendency to destroy female foetuses is becoming an ever-growing phenomenon thanks to the misuse of a medical breakthrough whose original purpose was to detect genetic deformities. Amniocentesis was first used or clinical purposes in 1969 in the US. It is a test designed to examine the cells of an unborn child, a few months after conception. The process involves withdrawing 15 to 20 cc. of the amniotic fluid surrounding the foetus in the 16th or 17th week of pregnancy for chromosomal analysis.

Although the basic purpose of this examination is to rule out abnormalities such as mongolism, it is now being used primarily to detect the gender of the unborn baby, particularly in India and other Asian countries. Gender determination is a much simpler process than the one for detecting abnormalities. All that the doctor has to find out is the combination of chromosomes. If there is a combination of X and Y Chromosomes — X from the Female and Y from the male — the baby is a boy. If the X of the female egg combines with the X in the sperm you get a girl. A simple examination of the body cells in the amniotic fluid, therefore, enables a doctor to I reveal the sex of the child.

As Vibhuti Patel of the Women's Centre points out, "A perverse use of modem technology is encouraged and boosted by money-minded private practitioners who are out to make a woman a male-producing machine." Amniocentesis for purposes of sex determination has become big business in India with an ever-expanding clientele mat is not restricted to the cities alone. Opportunities to do this test are available in the villages of seven of the states. In Maharashtra, for instance, places in the interior like Dhule and Jalgaon have clinics conducting the test.

The supporters of sex determination clinics, of course, accept the status quo of women being inferior to me. Justifying female foeticide, they come up with arguments like: "An unwanted female child is crippled — emotionally starved and economically disadvantaged." Advertisements advise: "Tay Rs 500 now and save Rs 5000 later."

Taking such arguments to their logical end amounts to the virtual wiping out of the female species. Though this may sound like an exaggeration, it is not so. For we have before us examples like Seoul, where thanks to selective abortions of female foetuses, the ratio of men and women has become severely lopsided, with frightening repercussions. Girls are being booked by parents for their sons while they are still in their diapers. Child marriages and polyandry are on the increase.

Closer home, statistics show that in states like UP where men outnumber women, there is a higher rate of rape, abduction, prostitution and polyandry. Dr. B.N. Purendare, a much-respected gynaecologist of Bombay, states that to view amniocentesis as an easy way to get rid of a female child is wrong. "The balance between male and female must be maintained in the population. If the female ratio decreases, it has a bad effect on the human race — we could become extinct." he warns.

But what Dr. Purandare considers a danger is looked upon as an advantage by crusaders of population control. Our national family planning programme aims to reduce the number of women, so that the means of producing babies is reduced! They hope that every woman will produce only one fertile female. This is despite the fact that India is one of the four countries in the world where women are in adverse ratio to men. The 1981 census shows 933 females to 1000 males.

Leading figures of the medical fraternity tout amniocentesis as a desirable method of population control. Says Sudha Limaye, head of the Obstetric and Gynaecology department at the Bokaro General Hospital in Bihar, "The one priority is population control by any means. Amniocentesis should be used as a method of family planning and made available to every one at a minimum cost or even free."

Echoing a similar point of view is Dr. D.N. Pai whose name is synonymous with abortion in Bombay. All commuters of local trains in this city are familiar with the name of his family welfare clinic Pearl Centre, almost every compartment of every train carries an advertisement of its Rs 70 per abortion scheme."It is a crime." he bellows, "to produce an unwanted baby. It is a crime against the child, the nation and the gloins which has only limited resources."

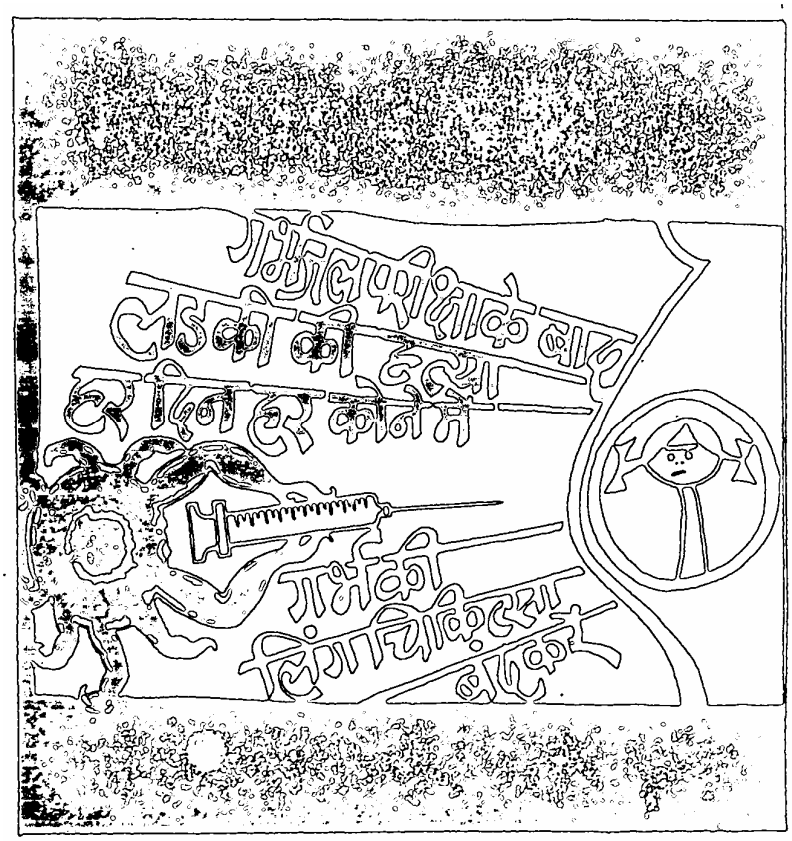
Dr. Pai, who has been a family planning consultant to the government of Maharashtra as well as the Government of India and is proud of the fact that he has won every possible award for his family planning drives, says. " By talking against sex determination tests you are destabilizing the population control programme. For a small gain you are giving up a big gain. You are sacrificing planning at the alter of morality." Dr. Pai goes further, "you are taking away the right of a women to decide on motherhood. You are tying her up in shackles of pregnancy once again."

By going in for amniocentesis, is a woman really exercising a choice? Or is she bowing down to social pressures and trying to do what her husband, in-laws and Indian society at large expect her to do — produce a son to carry forth the name of the family and thereby reinforce the patriarchal pattern of society?

Female foeticide is, in fact, another form of dowry death, another assertion of a woman's secondary position in a male dominated society. By creating a situation which forces her to strive for a sun, society is only making sure the status quo remains as it is.

According to Dr. Pai, When you tell couples to have only two children, you must also help them to have two children of their choice. He claims that no couple ever came to him for a sex-detection test in a first pregnancy. The ones who came to his clinic generally had one or two daughters, and wanted to balance this with a son. This might be true, but do couples ever think of balancing the ratio by hankering for a daughter? Has any women ever aborted a male foetus even after two, three or four sons? The fact that the Women's Centre found only one such case as against 7000 of female foeticide should be sufficient proof that it is not so much a concern for well-planned families as much as a deep-rooted prejudices against women.

Doctors advocating sex-determination tests and subsequent abortions would, of course like to think they are doing womankind a favour by offering such facilities. The handout of a Bombay hospital, Hankisondas, declares the test as "human and beneficial" Otherwise propagating vegetarian, non-violent habits, the management of this hospital finds nothing wrong in doing these anti-natal sex determination tests. To calm its conscience, however, it refrains from carrying out abortions: it only recommends other hospitals where these can be done, and asks the patients to bring back the fetuses for "research purposes".



In an emotion-choked voice Dr. Pal observes, “You have no idea what a woman goes through if she produces daughters one after the other. Should I let a women suffer because I have an opinion? I love women, I would like them to enjoy an equal status in society. How can I allow them to suffer?” On the one hand, there is this expression of concern, and on the other, the encouragement of a practice that will make the achievement of equality so much more difficult.

Vibhuti patel, who along with other activists had formed the Forum Against Sex Determination and Sex Pre-selection Technique, says, “ We see this test as a major stumbling block in our movement for liberation. If we don’t do something about checking it, it will soon get accepted like pregnancy tests. We have to create an awareness, make people realize how regressive it is. We must make these tests acquire a stigma so that doctors, who like to look upon them selves as messiahs of society, will get worried about their reputation and refrain from conducting them.”

Thanks to the efforts of this forum which has been exploiting every possible avenue to bring about public awareness of the true nature of sex-determination tests, Dr. Pat, who is easily one of its strongest proponents, has discontinued the “facility” at pearl Center. Of course, he still supports the concepts. But the adverse publicity his center was getting, persuaded him to give up the practice.

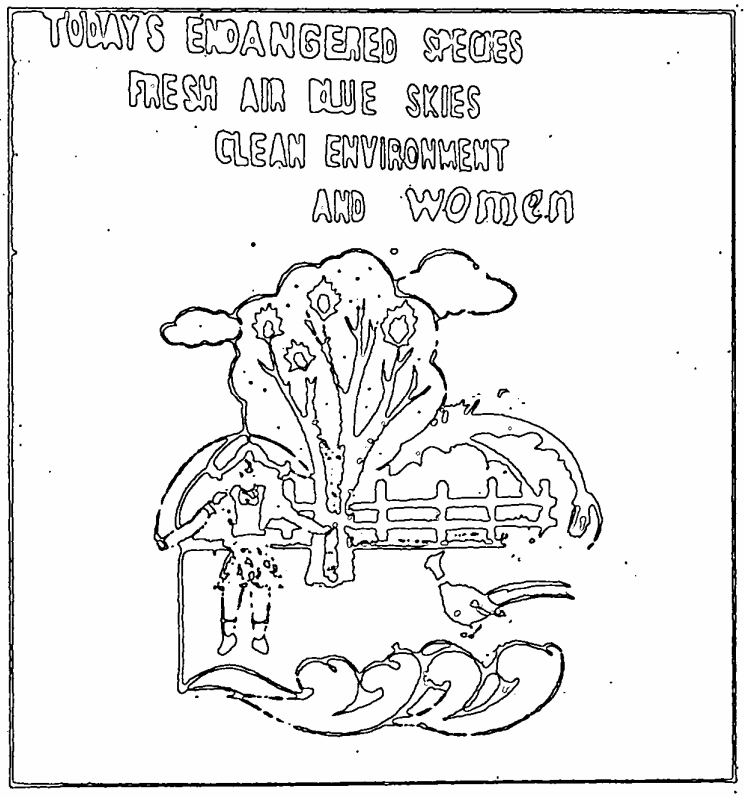
“These women,” he laments, “have done irreparable damage to motherhood by making me give up the amniocentesis test. I used to offer them the facility at an unheard price of Rs 70 per case which used to even cover the risk factor. For instance, if there was a need for blood transfusion I would do it at my cost. Now women will have to spend Rs 1000. If legislation is introduced against sex-determination tests, the whole thing will go underground. What was a service will become a racket which is as good as saying that there should be no leave against anything in this country as they will only encourage all forms of crime to be committed on the sly.

Many people — especially men — desire at least one son and feel this should not be denied to them. Fine, but to there any formula for producing sons (except through monitored insemination)? It is a fallacy to think amniocentesis will help couples achieve their desire of having a son. All it does is reveal the gender. What happens if repeated pregnancies and repeated tests show the foetus to he female? Is the mother expected to keep an trying and keep on aborting till the much desired son comes along? Advertisements promoting amniocentesis mislead people into thinking it is in their hands now to produce a son. Ads appearing in leading Gujarati papers (a state where maximum actrocities against women are committed) blatantly claim that couples can now have only sons.

Ignorant couples keep trying for a son, much to the detriment of the woman’s health. Most Indian women are anaemic and the effect of repeated abortions of their health can be disastrous. Rekha Patel, a 34-year-old Bombay house-wife, for instance, has yet to recover from an abortion she underwent after she discovered she was expecting a girl. Apart from a gradual loss of weight (she is now only 35 kilos) she is constantly tired and bleeds heavily during periods. This so almost three years after she went through the traumatic experience. And to think she had been advised to do the amniocentesis test by her family physician! As one editorial in *The Times of India* observed, the marriage of advanced medical technology and backward social values creates many a horrifying offspring.

It is ironical that the onus of producing a son should be on the woman because in reality it is the father who is responsible for the gender of the child. The gender of the baby depends on which chromosome from the sperm fertilises the female egg. Doctors like Pai, who are on

national family planning forums and who claim they would like to see the status of women elevated, should urge the government to publicise this fact in a major way, through television, radio, sports and hordings. For when the responsibility is shifted to the right shoulders, women will automatically not be forced to suffer pangs of guilt and insecurity if they don't produce sons.



At present women are the targets for most family planning programmes. After the adverse reaction to the vasectomy drives of the emergency, more emphasis is now given to contraceptive measures for women, with little concern for the effect they have on a woman's health. As Vibhuti Patel points out. "The harmful effects of pregnancy tests, contraceptive kills, anti-pregnancy injections, camps for mass sterilization (which are inevitably unhygienic), are always over-looked by enthusiasts of the family planning policy. Most population control research is conducted on women with-out giving any consideration to the harm caused by the research to the women concerned."

Patel objects vehemently to the woman's body being treated like a laboratory for technological advances. As she rightly observes, the psychological effects, apart from the physical hazards of these technical invasions are never considered.

Fortunately, because of the loud protests from activist groups and the focus in the media on the dangerous implications of amniocentesis, the government is showing some keenness to introduce legislation banning the use of the test for sex determination purposes. A high power committee comprising lawyers, doctors and activists has been set up to recommend the nature of the legislation. Although Dr. D.N. Pai is also on this committee, all the others on it are in favour of banning sex-determination tests.

Representing the Forum Against Sex Determination and Resolution Technique which has been carrying on a relentless campaign on various fronts for the abolition of sex determination clinics is R.P. Ravindra, a lecturer in the Pharmacy College of SNDT University, Bombay. Among other things he will be pressing for the following safeguards against the misuse of amniocentesis: Amniocentesis facilities should only be allowed in research institutions and private practitioners should not be allowed to carry out the test; only those mothers who are either above 35 years in age or those cases where there is a family background of abnormalities, or women who have had miscarriages earlier or produced still-born children or have been exposed to radiation or harmful drugs should be allowed to undergo the test (since such cases are few in number, any hospital that carries out too many amniocentesis tests will immediately come into focus); penalty for misuse of the test should be imposed on the doctor and not on the woman or her family.

The Bill to curb the misuse of amniocentesis was introduced in Parliament last year but till today it has not been taken up for discussion. It is scheduled for this monsoon session but in all likelihood will get postponed to the winter session, judging by the kind of time being taken up by political controversies one of kind or other.

In the meanwhile, ever effort continues to be made by activist groups to warn the people about the dangers of a practice that encourages them to think of women as second class citizens. Picketing outside clinics doing the test, morchas, discussions at various public forums and media coverage are some of the ways by which these groups have been building up public opinion against the test. In Pune, where the nurses unions are part of the women's movement, the picketing method has been particularly successful. In Bombay, a morcha was organised at which even small girls participated carrying placards which said "We won't differentiate between sons and daughters".

There are many who believe that what will finally put an end to this shocking practice of female foeticide is an overall change of attitude towards women. But does that mean that we sit back and wait for such a miracle to take place? After all, such a change of attitude can only be brought about by campaigns against specific forms of discrimination. Discrimination does not take place in a vacuum. And it's no use shrugging off the whole problem of female foeticide with generalised statements like, "Emancipate women, and such practices will automatically stop."

AMNIOCENTESIS: FOR AND AGAINST

Dr D.N. Pai and Vibhuti Patel present the two sides of the debate.

Dr. D.N. PAI WHO IS A LECTURER AT K.E.M. Medical College, Bombay, was at one time a director of family planning at the Bombay Municipal corporation. He has also been a consultant to the government of Maharashtra and the Government of India in the same field. He takes pride in the fact in 1984 when he was given charge of the family planning programme for Bombay, he achieved in 10 months 10 times what his predecessors had done in the last 10 years.

A staunch promotor of population control, Dr. Pai introduced sex determination tests through amniocentesis in his well-known clinic Pearl Centre in 1977. He stopped the tests in 1966 because of the "adverse publicity" he was getting courtesy women's groups protesting against the tests. Excerpts from as interview:

GENTLEMAN: Why has your clinic, pearl Centre, become synonymous with abortions?

DR. PAI: My clinic is a family planning clinic. We don't only do abortions. We have a counseling cell that gives advice to couples. We also help those who are unable to have a child. We study their problem and help the wives to conceive if it is possible. We also help unmarried girls who come to us at an advanced stage of pregnancy when abortion is not possible. I have a guest house for them in Nerel where they stay for the last three months of their pregnancy and after their delivery we arrange for the adoption of their children.

But yes, I'm absolutely against unwanted or enforced pregonsoncies. There is absolutely no room in this country for unwanted babies.

The Population of India today is 770 million. We eat ourselves various goals in population control but we rarely come close to achieving them because we lack conviction.

But don't you think that you encouraged discrimination against woman whom you claim to love by doing amniocentesis for determining the gender of the child?

PAI: Ensure that boys and girls are really equal before theorizing. Their equality will remain a paper concept till the time women are not given equal pay, equal opportunity.

Why do parents want at least one son? Because in India girls are expected to look after their in-laws while a son is expected to look after his parents. If you provide old age benefits and security, parents will feel less insecure and the demand for sons will decrease. You cannot look at sex determination tests in isolation. You have to consider it in the total socio-economic

context. Try to imagine the plight of a mother in a social environment where the birth of a daughter is looked upon as a calamity. As you will see form the form I made them fill up before doing the test, everything is clearly explained. All the risks involved plus the fact that our Constitution guarantees equality to both sexes is clearly mentioned. If despite all this a woman wants to do the test, it means that she would really suffer mental anguish if she had another daughter. Though I am all for the liberation of woman I am also a pragmatic person.

By making me give up the amniocentesis test these women activists have done a lot of damage to women.

When you carried out the tests how many did you do per day and how many abortions did you carry out subsequently?

PAI: Only two cases per day, Which shows that those without any other option come to me.

Don't you think repeated attempts at producing a son and repeated abortions are hazardous for the mother?

PAI: I do not know of any case when a patient has come to me a second time. So the question of repeated abortions does not arise. The problem has been inflated beyond proportion, made more sinister than it is.

Why do you think nobody came again? Did they go elsewhere or do they try it out only once?

PAI: I do not know.

As a member of various committees for family planning, why don't you initiate measures whereby it is publicized that the father is responsible for the gender of the child and not the mother and that today the daughter is also expected legally to take care of her parents?

PAI: Earlier there used to be more spots on TV for the Maharashtra state lottery than for family planning. Due to my efforts, the situation has improved a little but it isn't so simple. Laws may be there but how much of that is actually put into practice? How many women take advantage of the existing laws that are in their favour?

Does that mean you encourage these outdated practices?

PAI: To Put legislation in to practice you must educate the people. Communication is very important. No change can be brought about without removing ignorance. Child labour is illegal but how many people take action against it? Our country employs the largest number of children in the world. Marriage of minor girls is illegal, do we object to it? If your aunt were to get her 16-year-old daughter married, would you object? No, you would go to the wedding armed with a present, congratulate the couple, eat icecream and come back home. I have gone to such marriages and kicked up a fuss.

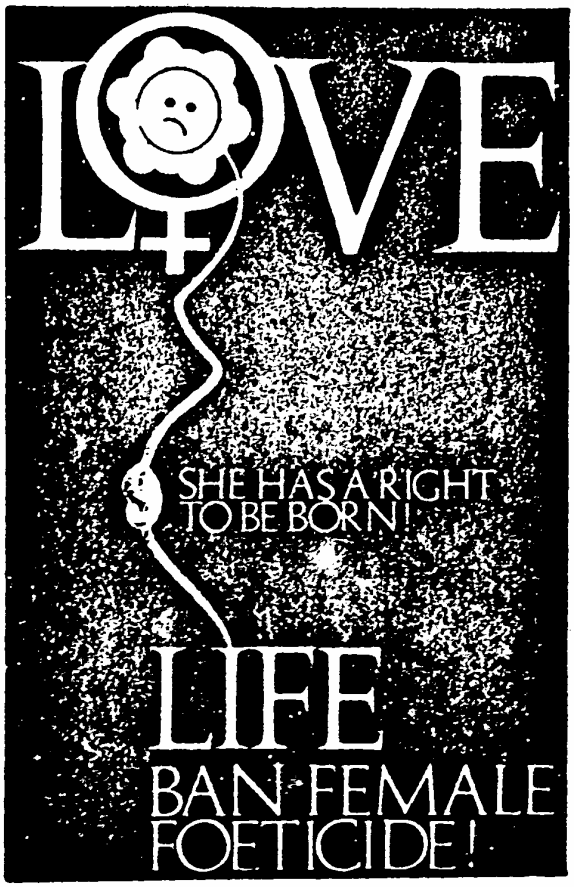
If you feel so strongly that sex determination tests are valid why did you discontinue them?

PAI: Because I am a member of the high power committees appointed by the government to study the issue and I didn't think it would be right on my part to be involved in any controversy. Also, all the other members are in favour of legislation banning it so I should abide by the law. But I sincerely feel we are making a mistake. These witchhunters are doing a great disservice to mothers, children and old people.

BAN FEMALE FOETICIDE

SUNITA Chaturved was 21 when she became pregnant for the third time Already 'burdened' with two daughters, aged three-and-a-half and one-and-a-half her husband Girdhari, and her in-laws were anodous to know the sex of the third child. It certainly was not going to be a girl again, they had made up their minds. It would have to be a boy this time. If, unfortunately, It turned out to be female, they would get rid of It, they told a bewildered Sunita.

Having heard of the flourishing trade in amniocentesis in Bombay, they decided to come here from Mathura, where they lived, to find out the sex of the the unborn child. They arrived in June '88, when Sunita was about four-and-a-half months pregnant, and consulted Dr. Meenaxi Merchant at an Opera House nursing home. Dr. Merchant perfomed the, amniocentesis test and on finding that the foetus was female, advised Sunita to undergo abortion under the Medical Termination of Pregnancy (MTP) act



The abortion was done on July 15 by the suction method or dilatation and evacuation method. Sunita was discharged the same evening and was advised to take ampicillin and pain Miters.

Sunita returned to Andheri where she was staying with some relatives. The following day, she developed pain. On July 17, Dr. Merchant was informed of the incessant pain and she advised Sunita to continue with the pein-Idillers. That night, Sunita's condition became worse. She suffered from breathlessness, palpitation, severe pein and general weakness.

The following morning (July 18), both Dr. Merchant and Dr. Rajani Arya in whose Clinic the abortion was performed, were contacted and they asked She relatives to bring Sunita over to the clinic

Sunita and her relatives immediately left in a load, but on the way Sunita became unconscious. The frightened relatives took her to the nearest hospital, (Nanavati) where she was admitted.

Sunita died on the 19th. The cause of the death was given as penetration or blunt injuries to the abdomen associated with post-operative rupture in that region or due to the injury while doing amniocentesis.

Consequently, Mahila Dakshata Samiti has filed a writ petition in the Bombay High Court seeking to prohibit amniocentesis or any other sex determination test from being carried out and the selective abortion of the female foetus. The petition, filed as a public interest litigation, also seeks to punish those who had indulged in the illegal practice resulting in the death of Sunita.

The petition raises some vital questions. It points out that under the MTP Act, while one medical practitioner to allowed to give an opinion in favour of abortion, if the pregnancy Is less than 12 weeks, two medical practitioners must give their opinion if the pregnancy is more than 12 weeks but less than 20 weeks. The rules also provide that while abortion before 12 weeks can be performed by dilatation and evacuation or suction method, abortion between 12 and 20 weeks must be done by other safer methods.

A 21-year-old woman died recently after undergoing the amniocentesis test and abortion to get rid of a female foetus. Mahila Dakshata Samiti, a charitable organisation, has now filed a writ petition In the Bombay High Court seeking to prohibit amniocentesis or any other sex determination test from being carried out and the selective abortion of the female foetus. It also seeing to punish those who had indulged in the illegal practice, resulting in the death of the young woman. In a society obsessed with male children, the Samiti says, women are forced to undergo abortions when the foetus is found to be female. The government has failed to take stern action despite several appeals to forbid the test from being used for this barbaric practice. The petition has been filed to prevent recurrence of such gruesome crimes. SAROJ NATARAJAN reports

Yet, the petitioners point out, the abortion on Sunita, who was over 20 weeks pregnant, was performed by the suction method, which is unethical and constitutes grave negligence on the part of the medical practitioners. Sunita's discharge the same evening they add, was an act of further negligence.

The petition urges that all relevant documents and reports at the nursing home relating to amniocentesis and abortion and papers and death register at Nanavati hospital, where she died, be seized. The petition also prays for a directive to the Maharashtra Medical Council and the Indian Medical Council to enquire into the matter of the death of Sunita as well as the doctors conducting the sex tests, especially Meenaxi Merchant and Rajani Arya, and debar such unscrupulous doctors for encouraging such practice of eliminating a female foetus.

The petition has also sought by way of interim relief, prohibition of amniocentesis or any other sex determination test from being carried out pending the final order. But the court has not granted It because the government counsel promised to produce the relevant documents.

"Amniocentesis, a method used to detect genetic abnormalities or deformities, is being misused to find out the sex of the foetus, leading to selective abortion of the female foetus,

leading to selection abortion of the female foetus," says Sudha Varde of the Mahila Dakshata Samiti. "Though the test should be performed only after 16 weeks of pregnancy, doctors making capital of the obsession for a male child, exploit the weakness in society, thus perpetuating the gruesome practice of killing female babies even before their birth," she adds.

Moreover, she points out, termination of pregnancy is to be done under certain circumstances to save the life and health of the pregnant woman or child. 'However, the" provision of the act is misused by many unscrupulous doctors and misguided members of society to eliminate a female foetus by using sex determination tests," she points out in the petition.

The MTP Act does not aim at abortions for getting rid of female foetuses, she avers, adding that notwithstanding the provisons of the act, no person has a right to take away the life on the basis of sex and it is discriminating and violative of Article 14 of the constitution.

Meanwhile, a bill has been introduced in the state assembly by Mrinal Gore (Janata), Shyam Wankhede and Sharayu Thakur (both Cong.) seeking a ban on amniocentesis leading to selective abortion of the female foetus. A similar bill has also been introduced in the Lok Sabha by Sharad Dighe (Cong.). It seeks to amend and MTP Act to prevent abortions being done with a view to eliminate female foetuses.

The state government has also appointed a committee to examine the legal implications of the existing provisions like the MTP Act, the IPC and the Cr. P.C., their adequacy and recommend additional safeguards if necessary. It will also examine the present physical provisions (like the number of clinics, hospitals) available for performing amniocentesis, if this test could be regulated, and if so, how. The committee' will also suggest a way of educating people on the medical and social Ms existing in society.

Asked why Or. Pai, who biatantly promotes she test, was also taken on the committee, an official of the health department said the Objective was to include people with different shades of opinion on the committee.

It is interesting to note that the Foundation for Research in immunity Health, a city- based voluntary organisation, which has been asked by the government to collect data on this, had earlier sent circulars to the government and civic health departments to find out the number of public hospitals conducting the test Ironically, the replies sent said 'amniocentesis facilities are available, in all the hospitals'.

25 REASONS TO BAN AMNIOCENTESIS

Amniocentesis or the sex determination test has become big business in Third World countries, where there is a marked preference for male children. But it is not a 'simple, easy and scientitic way' of doing away with unwanted births, as is commonly believed, RADHAKRISHNA RAO denounces sexual discrimination and female foeticide.

(1) Contrary to the widely prevalent view that a women is, responsible for the sex of the child, it is the chromosome in the man's sperm which determines the sex of in unborn baby. As it is, there is only an 'X' chromosome in the female ovary. On the other hand, a man's sperm has both 'X' and Y chromosomes. If the 'X' chromosome from the man's sperm enters into the female ovary, the resultant child will be female, while the Y chromosome from the man's sperm gives rise to a male foetus.

(2) Already 70 per cent of the women in India, a majority of them from rural backgrounds, suffer from severe malnutrition and acute anaemia. No wonder

fia has me second highest maternal mortality rate in the world: 400-500 per one lakh births. Against this backdrop, the possibility of women from the weaker sections of society going in for repeated abortions after sex determination tests is fraught with dangerous consequences

(3) Only in Kerala, which has the highest literacy rate in the country, there are 1,032 females for every 1,000 men. And in the industrially advanced and agriculturally progressive states like Punjab Haryana and Maharashtra the ratio of women to men has been declining steadily over the years in the country as a whole, there are 933 women for every. 1,000 men.

(4) A couple of yean ago, male mortality in the country was 60 per cent higher than that of males in the age group of upto five years. Today one finds that the same mortality ratio exists upto the age of nine years.

(5) "Let daughters be born elsewhere, but let sons be born here itself" is a sentiment that is as old as the Vedas. This primitive Irrational urge in conjunction with modern medical technology has given birth to the perilous disease of female foeticide.

(6) In the West a woman undergoing amniocentesis is told of the risks involved beforehand. But here in India, ads and bill boards proclaim amniocentesis as a 'simple, easy and scientific' way of doing, away with unwanted births.

(7) Amniocentesis is known to cause damage to the foetus and placenta, resulting in spontaneous abortions and premature labour. It can also create problems like hip dislocations and respiratory complications. There is also the risk of infection in the reproductive tract if antiseptic practices are not strictly followed during incision and the piercing of the amniotic sac. A study of ZAZ cases undertaken by the Voluntary Health Association of India (VHAI) states that the chances of premature delivery are four per cent

(8) One argument in favour of sex-test linked abortions is that it can reduce, the number of unwanted and neglected female children. Further, an adverse sex ratio, according to the law of demand and supply will elevate women's status in society by eliminating evils tike dowry and bride burning. However, sociologist Leela Dubey says that societies which have an adverse female sex ratio can give rise to customs like polyandry and sharing of a woman as well as the increased incidence of rape and prostitution.

(9) A recent survey by the World Health Organisation (WHO) in the Third World countries points out that the preference for a son determines the quality of parental care and the extent of investment in the child's development and that the neglect of girls is a conditional response to a situation of scarcity. The results are excess female mortality and in some cases, a lower female life expectancy.

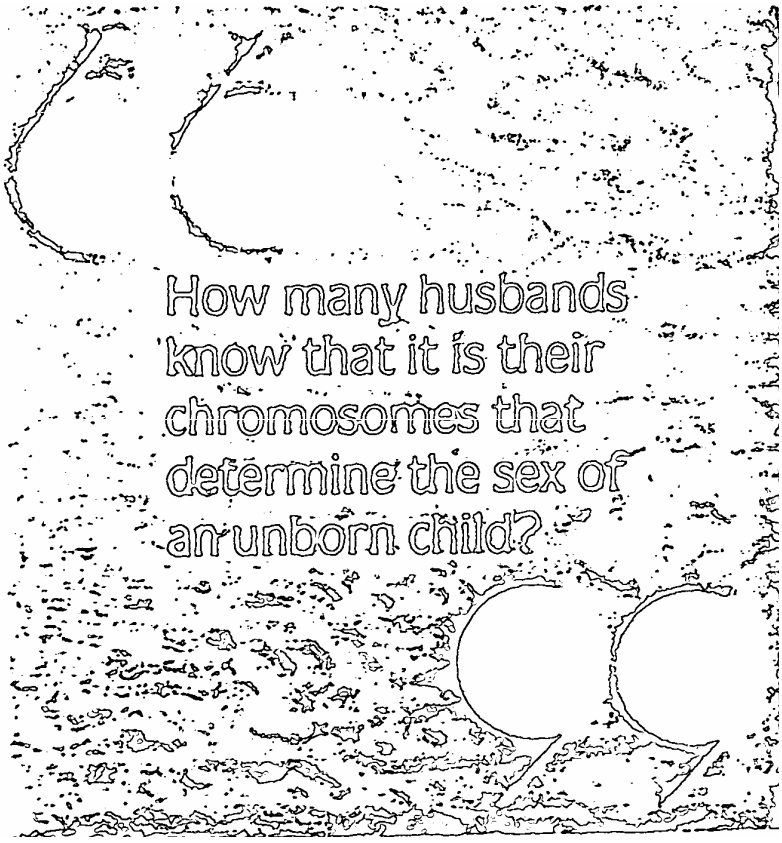
(10) A favourite justification for the continuing practice of female foeticide after sex tests is that it can serve as an effective tool of family planning. In fact it is this belief that has led the

government and other authorities to turn a Nelsons eye to the malpractices and hazards associated with sex determination tests. But many field surveys have shown that sex tests can only ensure multiple abortions with perilous consequences to women's health.

(11) Dr. Malini Karkal, head of the department of public health and mortality in the International Institute of Population Sciences at Deonar in Bombay observes that "if foreign rulers could help eradicate customs of eliminating widows through Sati, there is no in why sex-selected abortions should not be severely punished?"

(12) According to the World Fertility Survey published by the Netherlands-based International Statistical Institute, India, Bangladesh, Jordan, Nepal, Pakistan, Syria and S. Korea have the strongest preference for boys.

(13) Lack of food, clean drinking water, economic insecurity are safe clinical facilities have lad to a situation where a woman has to have over six children to ensure one surviving male child.



(14) After a number of sociological studies of school children in Seoul in the early 80s revealed a progressive dacline in the number of girls, the S. Korean government enacted a legislation banning sex determination and resultant abortions, However, woman with genetic complications and disorders that make birth a complicated process are allowed to undergo these tests under strict medical supervision.

(15) No comprehensive survey pertaining to the magnitude and operations of the so called sex test clinics has yet benn undertaken in India. For many of these clinics operate under the guise of maternity homes. Clinical labs and family health centers. However, the Maharashtra State Health Dept believes that there are 248 such clinics spread all over the state. But this seems to be a gross

underestimation. In recent months, these clinics have spring up in such moffusil areas as Dhule and jalgaon.

(16) According to Mr. R. P. Ravindra, an academician-cum-women's activist actual sex testing is done in about 15 labs in Bombay: the numerous clinics which advertise this can only remove a sample of the amniotic fluid.

(17) Sex determination is fast becoming big business. In the rural areas, they pay not only for taking the sample and chromosomal analysis but also for other expenses incurred. The view is that "it is cheaper to spend Rs. 500 now than spend thousands for years later".

(18) Mr. Ravindra points out the disturbing trend of illiterate women in the slums of Bombay borrowing money at exorbitant interest rates to defray the expenses connected with sex determination tests and subsequent abortions.

(19) An analysis of 118 cases from sex-test clinics in Bombay showed that 12 per cent of the women had one living son and 10 per cent of the women had not more than one living daughter.

(20) Many Tamil dailies have reported on the widely prevalent female infanticide among the two lakh-strong Kallar community in the Usilampatti sub-division of Madurai dist The Society for Integrated Rural Development led by Mr. Vasudevan is trying to dissuade Kalians from continuing with the practice of female infanticide.

(21) In the Maharashtra Assembly. Ms. Mrinal Core has introduced a bill seeking a ban on all types of sex determination and sex pre-selection techniques. The bill seeks that the tests be done only in govt hospitals on pregnant women, over 35 years with a case history of genetic disorders.

(22) The Women's Centre in Bombay has already appealed to the prime minister for speeding up the legal ban not only on sex determination tests but also on sex pre-selection techniques, Mr. Ravindra is now in touch with the Union Health Ministry on the formulation of a comprehensive bill for prohibiting these practices.

(23) A survey of 8.000 women in Bombay who underwent amniocentesis tests showed that 7,999 of them went in for abortions after foetuses were found to be female.

(24) Amniocentesis is slowly being pushed into the background by the more advanced Chorionic villi technique which involves the removal of the elongated cells of Chorion (tissues around the foetus) through the cervix. This enables sex determination even as early as the sixth week of pregnancy.

(25) The Medical Termination of Pregnancy (MTP) Act of 1971 holds that an abortion can be had if the foetus is less than 12 weeks only on women for whom the continuation of pregnancy may involve a risk to the life.

A recent sample survey by the Family Planning Association of India (FPAI) has come to the conclusion that the craving for a male child, religious considerations and Illiteracy are among the vital factors slowing down the progress of family planning in India. An Intense obsession for a male child, says the survey, has been mainly responsible for a couple with daughters going in for the next child over and again till they get a son. This applies roughly to about 25-30 per cent of the couples in reproductive group in the country. As in China, in India too, a large number of female children, especially in rural areas, are done to death immediately after birth. However, reliable facts and figures pertaining to female infanticide in India are yet to be compiled. There is no official pressure on the couples in India—in distinct contrast to the Chinese situation—to go in for one child.

Moreover. India has the second highest maternal mortality rate in the world: about 400-500 per one lakh births. Of the 12 million girls born in India every year, more than a million will not see their first birthday, while 85.000 will die prematurely and one third of the susceptible

survivors will face malnutrition. Added to this, an unspecified number of newly wedded women are killed In what are termed, “dowry deaths”.

Amniocentesis is also becoming popular among the urban poor and the rural rich. In less than five years, what began as an esoteric and largely unknown technique of chromosomal analysis to detect genetic abnormalities has now become a big business with an ever expanding clientele. To keep track of the accurate record of sex determination clinics, by the mid 80s, the cost fell down to Rs. 200 thus attracting poorer segments of society as well. And today, abortions can be had for as less as Rs. 80. The logic is simple—spend Rs. 80 now and save at least Rs. 8.000 later.

A research note on female infanticide and amniocentesis prepared by Roger Jeffery, Patricia Jeffery and Andrew Lyn concludes that “Our understanding of the Indian situation suggests that it would not be able to enforce a ban on amniocentesis as is currently being urged. But in our view, any further reduction in the sex ratio in Northern India would signify a continuing decline in the relative status of women and it would be unlikely to offer any benefits to one women who survive.”

Dr. Ravindra. an academician turned women’s activist poses a question: Should a male-dominated society exercise control over female conception, the timing and sex of the unborn baby? Similarly., there is the related question of who would decide the relevance of scientific research into the areas of reproduction. Given women’s status as the second sex’ it is not surprising that research into the hormonal contraception has been directed towards changing the hormonal balance in women as a means of manipulating the entire process of reproduction.

The early June announcement In Tokyo of a new technique which allows the parents to select the sex of their children has not gone unnoticed.in India. Indeed millions of Indians are waiting for the day when they can choose the sex of their offsprings.

It is again women who are the special target of the family planning drive in India. Female sterilisations account for 80 per cent of the family planning operations in India. The argument put forth by the authorities is that women, themselves, want tubectomy. In a conference on vasectomy held in Colombo in 1982. it was stated that although vasectomy is much easier, safer and simpler than tubectomy. it remains a largely ignored procedure having lost its popularity even in the countries where it was earlier widely popular. One recent survey found that women opt for tubectomy because they believe that vasectomy will render their husbands incapable of hard work or activities like cycling. Such fears are greater when husbands are the only breadwinners.

SHARE A SECRET

DECEMBER 1977: We had just moved into our own flat in Bandra. and I was looking forward to celebrating Christmas in royal style, in our new home.

However, on December 10th, a tiny lump was discovered in my breast And to my dismay, I realised that I would be spending the hectic but thoroughly exciting weeks before X’mas in a hospital ward. The surgeon assured me that it seemed a benign tumour and I was certain I would be back home in good time for the X’mas festivities.

Scarcely had I moved into the new house when I was admitted into the Bombay Hospital, for a couple of days. The operation was performed, and to my dismay and horror, the biopsy proved that the tumour was malignant. It became imperative that I undergo a mastectomy.

I broke down completely. My faith in god was completely shattered. I had prayed earnestly for the tumour to be benign. Now I was certain I would be hospitalised even during X’mas week.

I prayed that a miracle would somehow make it possible for me to attend the midnight mass back home.

But the 24th dawned, and I resigned myself to spending X'mas for the first time away from my family—not in the warm, friendly atmosphere of a home, but within the strange antiseptic walls of a hospital ward. Throughout that dreary X'mas, however, I was spiritually present with my family. At midnight on the 24th, I said a silent prayer and fell into a drugged sleep.

X'mas mom, happily, brought its own share of joys. At 9 am, my husband and children, in festive attire, trooped into the ward to wish me, followed by my mother.

The nicest part, however, was yet to come. To my delight, my husband walked into the ward once again at lunch time with a hamper containing the royal repast I had visualised myself enjoying with the family.

With him at my bedside, we shared our first X'mas lunch away from home and the children. My children dined with my sister's family who was holding the fort during this traumatic period. I was truly touched by my husband's thoughtfulness in wanting to lunch with me on that special day. It was this magic touch which completed that unique X'mas for both of us.

Though in pain and in the hospital, this was the most treasured X'mas I recall—made real by my husband's simple gesture of shared devotion.

-EDITH D'SOUZA

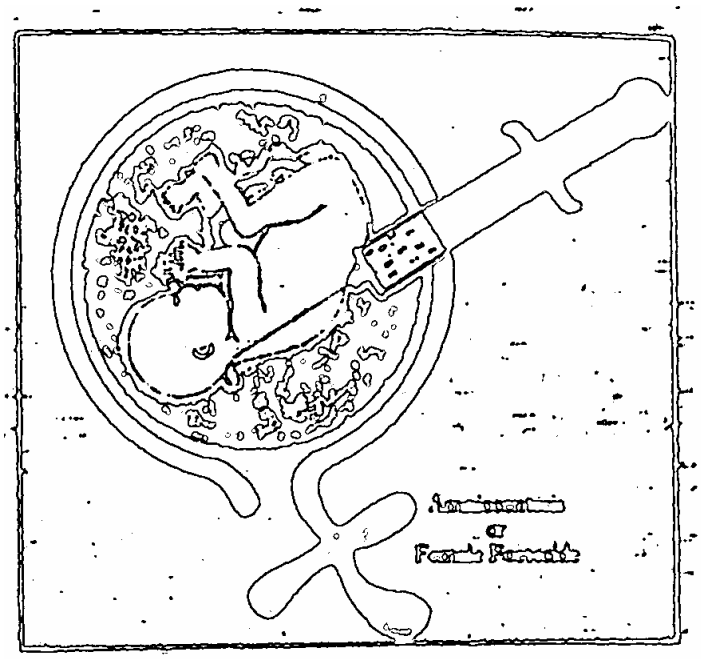
AMNIOCENTESIS PETITION ADMITTED

Deepti Gopinath reports one recect petition admitted in the Bombay HighCourt Seeking to out law sex determination tests.

Twenty one old sunita chaturvedi was married and had two girl children. She lived in Mathura with her husband Girdhari chaturvedi, his parents, and the children. Early this year Sunita conceived for the 3rd time. She was persuaded by her husband and in-laws to go to Bombay and have an amniocentesis test performed, so they could know the sex of unborn child

Sunita was 4 1/2 months pregnant. She consulted Dr. Meenakshi-Merchant who carried out an amniocentesis test. The test revealed that the foetus was female. Sunita was advised to have an abortion.

The abortion was performed by the suction method. She was sent home after being prescribed amplicillin and pain killers. The next day she developed slight pains, and so consulted Dr. Rajaben Arya who advised her to continue the same medication. As the day were on Sunita became worse. She complained of breathlessness, palpitation, severe pain and weakness.



On the next day a relative of sunita's contacted either Dr. Merchant Dr. Arva or both, who advised her to bring sunita to their clinic. Sunita and her relative immediately left Andheri in a taxi. On the way Sunita became Unconscious. Alarmed, her relative admitted her to Nanavati Hospital which was the closest.

Sunita died the next day at the Nanavati Hospital. Her death was Caused by secondary peritonitis which occurred due to penetration or blunt injuries to the abdomen which is associated with post-operative rupture in that region or due to injury while performing an amniocentesis test.

This is used by parents and unscrupulous doctors to get rid of unwanted female fetuses. However amniocentesis is ordinarily performed in the 16th week of pregnancy which renders it

illegal under the Medical Termination of Pregnancy (MTP) Act, 1971 (See the Lawyers, March 1986 Amniocentesis or female foeticide)

The Mahila Dakshita Samiti Trustfiled a with petition in the Bombay High Court, which seeks to prevent prenatal Amniocentesis or any other sex-determination tests, and selective abortions on the basis of the sex of the foetus. The petition also seeks to punish those who had participated in such illegal practices which resulted in Sunita's death. The petitioners submitted that such sex determination tests and selective abortions are violative of Article 14 and 21 of the constitution, as they take away life and liberty without any reasonable procedure laid down by law.

While it is possible to argue that selective abortions of a female foetus is an offence under section 312, 315 and Lively dangerous to suggest that an unborn-child has a right to life guaranteed by Article 21.

The Petitioners have also requested the Court to direct by a mandatory injunction the prohibition of any Amniocentesis test or any other sex determination test to be carried out by any medical practitioner.

On 20th October 1986, the petition was admitted by justice Jahagirdar of the Bombay High Court. However no interim relief was granted as the State made a-statement that they will produce the relevant records. Meanwhile, a Bill has been introduced in the Lok Sabha by Shri Sharad Dighe Seeking to amend the MTP Act. It seeks to Prevent the Performing of an abortion by any registered practitioner if he or she had reason to belive that the pregnancy is being terminated with intention to commit female foeticide after having determined the sex of the unborn child.

A Bill has also been introduced in the Maharashtra State Assembly by Mrinal Gore, Sharayu Thakoor and Shri Shyam Wankhede, Seeking a total ban on tests of pre-natal sex determination within the state of Maharashtra. It seeks to prohibit any medical authority from carrying out an amniocentesis tests or any other biotechnological test or medical techniques Which may be developed in the future in order to career out selective abortion of female foetuses. The Bill requires all sex determination tests to be carried out only by approved Medical Centres and, such practitioners should keep exact and clear records to be maintainded for a period of 5 years, and be available for production to authorities when required. The Bill also provides that patients only be permitted to take the test after being informed of all possible side effects. The Bill also recommenends stringent action against defaulters which includes rigorous imprisonment, up to a period ten years with a fine. It also recommends revoking the practitioners licence for five years granted for the purpose of the Act.

In response to the controversy, the Public Health Department of the Government of Maharashtra appointed a committee. To study the different laws governing the issue and the magnitude of the problem and to make recommendations for amendments to the existing legal provisions under relevant Acts, or suggest new legislation.

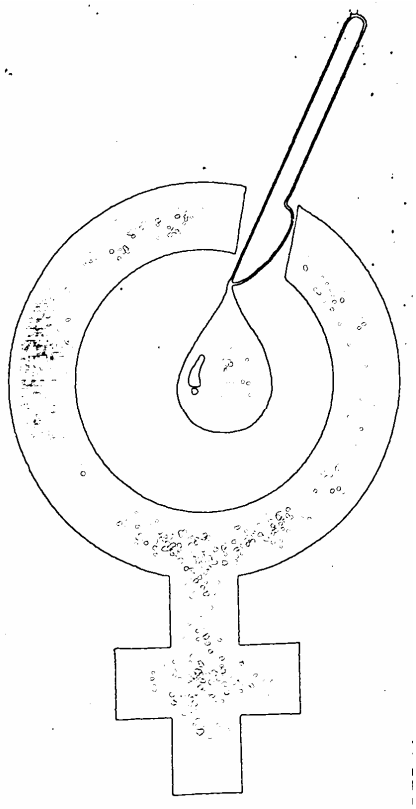
Though the setting up of this committee by the State Government seems a step in the right direction, one wonders how Dr. Pai (of the Pearl Centre) Who is a self confessed performer of Amniocentesis for the purpose of sex determination and who even publicly defends it (The Lawyers, March 1986 as having legal sanction, has found his way on this Committee.

The Committee has been given a denote line of November to present its report.

PLANNING FOR FEMALE FETICIDE

Female feticide is in-built in our sixth and Seventh Five Year Plans. People fail to realize this. We may know that amniocentesis for determining the sex of the unborn baby followed by abortion of the female fetus has become a common practice, and we may raise our voices against it. But we are unaware that the downgrading and elimination of women in stages as early as the embryonic is a systemic development of the Indian family planning programme.

The Sixth and Seventh Plans have an objective of net reproductive rate (NRR). This means a mother is replaced by a daughter. A Study of the plans reveals that she can have more than one son because they advocate 2.3 children per couple (230 children per hundred couples). The biological sex ratio at birth is 1.04 to1.06 boys for 1.00 girl (that is, 104 or 106 boys are born for every 100 girls born). Therefore, to attain a family size of 2.30 the extra children allowed will have to be boys. How can this number be attained if not by aborting female embryos?



If anyone has moral .objections to the elimination of female fetuses, scientists are finding ways of bypassing them. Dr Steven Taylor of the Fertility Institute, New Orleans, USA, says that-the Institute has produced a boy baby by selecting male producing sperm for in-vitro fertilization. Ronald Ericsson, another American reproductive physiologist, claims he has-developed a technique for selecting the sex of a child before conception. He has tated his technique and has floated a company called Gametrica Limited, with 46 branches across the world to universalize his technique. It is significant that Ericsson's technique cannot be used for female sex selection. Since it has a 75 percent success rate, it cannot guarantee male births either. So how does a couple make sure it is among the "lucky" 75 per cent? By sex determination tests

and aborting females, obviously. It as important to note that Ericsson's clinics are doing brisk business in Asian countries where an overwhelming bias for male children exists.

Most Asian societies, including Indian society, have had this male-oriented bias for centuries. While a man is glorified for his macho image even at an advanced age, a childless woman faces the threat off divorce or abandonment. A women has no choice in determining the size of her family, even though surveys show that women ' prefer smaller families. Women are forced to be subservient to the men-folk—father, brother, husband and son — of the family. A widowed woman with a minor son faces having her share of property misappropriated by her husband's male relatives. She must therefore bear sons, and bear them early if they are to be old enough to take, control when the need arises.

Our constitution guarantees equal rights to both sexes and the five-year plans are drafted with the aim off removing any social discrimination that may exist. But the status off women in the country has not improved in terms of their education, employment, health etc; in fact, it has deteriorated. While the census of 1901 showed that there were 504 working women for every 1000 such men, a figure which rose to 516 by 1921, only 253 women per 1000 men were economically active in 1981, a drastic decline.o

'At the root off this entire issue is the social and cultural bias which refuses to recognize women as equal partners. In the ultimate analysis this bias is reflected even in the plans and government programmes. This is abundantly proved by the government's family planning policy and its implementation.

During the pre-Independence period, women, who are biologically stronger than men, had lower death rates compared to those of men, at all ages except during their reproductive years. Now, during the post Independence years, the death rate of women is higher from the age off one to the end of their reproductive span. If female babies under the age of one have lower death rates, it is only because the biologically weaker male as more likely to die in this early period of his life. On the other hand, the reason that there are lower death rates among women after the completion of their reproductive span is because only the extremely strong ones among them have made it that far.

The First Five Year Plan, drafted scorn after Independence, showed concern for the loss of women's lives through maternity. The plan therefore accepted fertility regulation as a national policy. Spacing and limiting births, to improve the health and welfare of women and children j. wear accepted.

India was the first country to accept fertility control as a national policy. With this objective in mind, the planners named the programme "family planning". At the international level, the "birth control" movement had originated as a. part of the suffrage movement. Clinics established under the sponsorship off the International Planned Parenthood Federation (IPPF) were advising women to use the diaphragm and spermicidal jellies to "protect" themselves from pregnancy, whereas the Indian family planning programme was aimed at counselling both women and men about fertility control in the interest of the welfare of the family. In the absence of a model, the . Indian programme soon adopted the "clinic approach" of the IPPF, negating the positive approach of family welfare planning.

The census figures of 1961 were a jolt to planners. The population had grown far beyond all the projected figures. It was argued that the growing population was negating the fruits of economic growth. In its anxiety to reduce the size of the population the Fourth Five Year Plan (1966-71) saw a clear shift in the family planning programme - from a programme for health and welfare to one of population control. Its objective was to reduce the birth rate in a given period

of time. The family planning programme became “target oriented” and time-bound. It came to be evaluated in terms of births averted and how much the birth rate has been reduced by.

The major victims of this target-oriented and time-bound approach were of course the women, the tribals and the weaker section of the urban and rural population.

The plan had a target of covering 28 million couples; the expected number of births to be averted was 18 million. With the blasshifting towards “averting births”, the programme began to emphasize the one time motivation method — sterilization. The programme was launched in the mid 1960s with the mass camp approach — conducting a large number of vasectomies in special camps, particularly in rural areas. The focus soon shifted from men to women. The number of tubectomy operations showed a marked increase. At that time, tubectomics could only be performed after delivery, thus imposing a definite limit on the number of sterilizations which could be done. But medical technologist were not to be left behind. They developed simpler procedures for tubectomics which could be performed at any time vasectomy camps were soon supplemented with tubectomy camps in different parts of the country. Tubectomy camps were however more frequent.

A search was also made for a simple inexpensive and effective method for couples with fewer children. The Indian Council of Medical Research (ICMR) conducted an exhaustive, nationwide investigation on intra-uterine devices (IUDs) for women. Though the method prevented pregnancies, the ICMR study found that many women could not retain the IUD and many others

suffered several side-effects. In spite of these findings, a massive campaign was launched and a very large number of women were fitted with IUDs.

In its anxiety to control population, the government also decided to liberalize the law on abortion. The experience with liberalized abortion in Japan and Eastern Europe had shown that even with better nutrition, health and medical services, the women suffered several health problems as a consequence of abortions. Furthermore, the committee appointed by the Government of India to look into the Situation stated that "there did not exist or will no exist in the foreseeable future, either the doctors or the medical facilities to support and extensive abortion programme. Yet the law to liberalize abortions-the Medical Termination of Pregnancy (MTP) Act-was passed in 1971 and came into force from April 1972.

Why was it never pointed out that the Japanese experiment could not be easily duplicated elsewhere? The fact that Japan had halves its birth rate in ten years was due to several unique factors In a Japanese cultural set-up a fetus is not recognized as having a life: abortions entailed no individual or social trauma. Besides, the Eugenic Protection Law that was passed in 1948 to make abortions freely available was passed with the major motivation of preventing Japanese women from having babies lathered by American soldiers. Though the Japanese Government had provided to pay the doctors performing abortions there were hardly any who asked to be paid—a situation unthinkable in India.

The passing of the MTP Act was proposed by some but supported by many Among the supporters were those who argued that the law would prevent septic abortions caused by untrained persons and unhygienic conditions. The feminists too supported the Act. They argued that a women herself ought to have the right to decide on matters concerning he body and that a pregnant women should be permitted to terminate a pregnancy was seen as a step up in women's status. But can the average Indian women exercise this right when she has no power to demand? She has no option whether be wants to marry and, once married its completely under the control of her husband and the in-laws. This is clear from the cases of bride burning that are so often reported.

The Act has not been able to stop illegal abortions either. Before the Act came into force, there were an estimated 3.9 million abortions every year in the country. But the astounding fact is that between April 1972 and March 1984 the number of abortions registered under the Act was a more 3,442,282, against an estimated figure of 46.8 million. It is clear that women continued conceiving unwanted pregnancies which they were forced to terminate illegally, at great risk to their health and their lives. It man also be pointed out that maternal mortality rates in India, estimated at between 460 to 800 per 100,000 child births, are extremely high compared to neighboring developing countries like Sri Lanka and Singapore which report figures of 15 to 20 per 100,000 child births. There significant is the fact that as many as 15 to 20 per cent of the deaths, result from abortions.

Before the MTP Act was passed, Minoru Koya, a well-known demographer from Japan, had written an article in an Indian newspaper warning against the consequences of liberalizing abortion laws. Koya had pointed out that the laws are liberalized. In other words, women are exposed to greater chances of unwanted conceptions. Data from Bombay show that the city has a relatively low birth rate. The annual number of births is around 200,000 white the estimated abortions are twice that figure. There is also evidence that the incidence of gynaecological and obstetric problems among Bombay women is quite high. Even when the city has 542 maternity homes and almost 99 per cent of the deliveries take place in these institutions.

The target of the birth rate laid down in the plans has never been achieved and the censuses continue to show relatively high growth rates. So the Indian family planning programme has come to rely heavily on sterilization. Figures show that over 90 per cent of the contraceptors are couples who have accepted sterilization, and that over 85 per cent of the sterilizations are tubectomies. The percentage is higher in states that claim greater achievements in the programme. Even among other contraception methods, the female methods such as IUDs and the oral pill are the most common.

There are other ways in which the government programme promotes the biases of our society. Large sums of money are spent on developing newer contraceptives, Nearly all of them female methods — injectables, implants, newer IUDs etc. Clinical trials and the promotion of these methods continue in spite of adverse reports from developed countries and even when they are banned there.

The Sixth and Seventh Plans emphasize the promotion of laparoscopic sterilization despite the fact that and international group of endoscopists had pointed out at a meeting in Bombay that such sterilizations have a high incidence of complications and a high failure rate in India. The major health problems that ensue and the death figures are also much higher than the internationally accepted figures. The endoscopists had categorically recommended a ban on mass camps for this procedure. In the light of this commendation by experts. The promotion of this method is blantantly unfair and dangerous to women.

Child mortality continues to be high in the country. *The Year Book on Family Planning*, an official publication of the Ministry of Health and Family Welfare, clearly states that child and

infant mortality has to be reduces because it is known that couples have more children if many of them are expected to die. The obvious logic underlying the acceptance of family planning is that assuring that survival of children motivates couples to limit the size of their families. The annual report of the Ministry of Health and Family Welfare mentions that "the acceptance of small family norm is dependent on the confidence among the parents about the chances of survival of their children". For women, high, IMR rates mean more present figure of 114 per 1000 births to 60 per 1000 births by 2000 AD.

Maternal mortality, Which is and index of the health of women, has also received little attention in the population policy of the plans. The actual maternal mortality rates are not available. Estimates vary from 460 to 800 deaths for every 100,000 child births. In the plan, the maternal mortality target for 2000 AD is 200 for 100,000 births.

The Indian Experience shows that in spite of the reduction in the overall death rate, the death rates for women and children continue to be high. Among the measures suggested for bringing down the IMR are trained attendance at delivery and growth monitoring, oral rehydration, birth weight and immunization (GOBI). What is overlooked in these suggestions is the fact that for improving the health of children and ensuring their survival, the most important condition is health mothers. The Programme that needs urgent attention is the one that will assure better health and better survival rates for women of all ages.

The recent work in reproductive technology, such as artificial insemination, in-vitro fertilization etc dilute the efforts to give womanhood its dignity. Is women's worth dependant only on their reproductive capacity? Are we not at all bothered by what she goes through before the technician successfully ensures that see is pregnant?

Supporting amniocentesis and sex selective abortion as a population control measure, given society's preference for sons, is going to ridiculous extremes. If foreign rule could help eradicate the custom of eliminating widows though sati, there is no reason why sex selective abortions should not be severely punished.

The solution to the population problem is to raise the dignity of women so that they are recognized as human beings and are given a rightful place in society, not because they have to be tolerated for the needs of men and society. For the people to accept the government's population policy, it is necessary that the programme moves away from the present emphasis on the quantity of people towards thinking seriously about their quality.

MALINI KARKAI

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MEDICO FRIEND CIRCLE

The Medico Friend Circle (MFC) is a circle of friends with medical/non-medical backgrounds who share the common conviction that the present system of health services and medical education is lopsided in the interest of the privileged few and must be changed to serve the interests of the large majority, the poor. MFC fosters a 'thought current', upholding human values, people and community orientation of health care and medical education, demystification of medical science and a commitment to the guidance of medical interventions by people's needs and not commercial interests.

MFC offers a forum for dialogue/debate, sharing of experience and experiments with the aim of realizing the goals outlined above, and for taking up issues of common concern for action.

For further details regarding MFC—Women's Reproductive Health Bhopal Study, contact.

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[A detailed report of the study including background, objectives, materials and methods, observations and results, discussion, recommendations, important appendices including proformae and references and reading list is also available on request from the above address.]

ACKNOWLEDGEMENT

MFC is extremely grateful to the following organisations that participated in the survey viz: Sabla Sangh, Action India, Ankur, Saheli, Jagori, Prayas, Mahila Mukri Morcha Sewapuri, Sahiyar, Nari Atyachar Virodhi Manch and Search. Without their active participation and the help given by Ekalavys, Jona Swasthya Kendra, Bhopal, this survey could not have been completed successfully. We take this opportunity to express our heartfelt thanks and empathy to the gas affected women who gave overwhelming response to the sympathetic, concerned enquiries of the survey team.

EFFECT OF THE GAS LEAK ON WOMEN'S REPRODUCTIVE HEALTH IN BHOPAL

During the second half of March 1985, three months after the Bhopal gas disasies. MFC conducted an epidemiological associated survey on the effects of the toxic gas in the basic of Bhopal [1]. The study showed that between 50-70 per cent of the ambulatory population in the severely affected areas of Bhopal continued to have one or more serious symptoms implicating different body systems. Among women in the reproductive age group, a significant alteration in menstrual cycle had taken place. The alterations were mainly in the form of shortened cycles, abnormalities in the menstrual flow, dysmenorrhoea, (painful menstruation) and (white discharge). These findings were also supported by independent studies carried out by Drs Rani Bang and Mira Sadgopal on women attending gynae clinics in the affected basics [2]. This evidence of extensive damage to the different body systems especially to that of the reproductive system in the women added to the already growing concern over the effects on the developing foetus in pregnant women exposed to the gas. This concern had been voiced earlier in February '85 by a fact-finding team of doctors [3].

Unfortunately at the time MFC was not in a position to assess the risks to the foetus, since the socio-medical survey had covered only 50 families, a number too small to measure abortion rates. However, as months passed and no authentic information was available either on pregnancy outcomes, or on effect on women's reproductive system in general, MFC, despite its ever-present limitation of resources, decided to design and coordinate an independent survey on these two problems.

Letters requesting help were circulated to various women's groups and the overwhelming response of women activists indicated that the survey was a realistic and feasible proposition. However, the study was by many problems right from the start. To begin with, it was next to impossible to get any information from the medical establishment in Bhopal.

This conspiracy of secrecy was extended to such ridiculous lengths that even innocuous information such as the ICMR numbering and the maps of the basics was treated as classified documents. The situation worsened in June when in a sudden move the MP government arrested the doctors and the activists of the Jan Swasthya Kendra under preventive detention. This un-called for action of the government had the effect of terrorising the bastis people as well as the few previously helpful doctors from the Gandhi Medical College. That the study took place at all was a reflection of the conviction shared by the women activists participating in the survey and the affected women from the bastis on its absolute necessity

Methodology of Study

The survey was conducted in three of the affected bastis which were selected on the basis of the post-gas leak morbidity and/or mortality rare [4]. These were J P Nagar (mortality rate 65.3/1000, morbidity rate 66 per cent). Kazi Camp (mortality rate 46.7 per cent and mortality rate 54-60 per cent), and kenshi Chola (mortality rate 35.7 per cent and mortality rate 91.9 per cent). The selection of the area and the sample was also facilitated by the fact that the ICMR had already accomplished one important task fairly efficiently, namely the division of the bastis into 13 areas and numbering of all the houses providing the much-needed sampling frame

Based on studies done elsewhere [5] which showed abortion recall of 82 per cent accuracy even after a lapse of ten years, a '*historic control*' was decided upon. This was to be the status of

the study population in the year preceding the event of the gas disaster. Detailed information on the menstrual cycles and reproductive history gathered from the study population for the period from December 1983 to December 1984 (the year before the gas leak) was to be the control for the period after the gas leak. This method of using a historic control eliminated the problems of finding an identical population, even though it could have introduced an element of under-reporting due to memory lapse. The families were selected by 'random-sampling', taking into account a non-response rate of 25 per cent.

In many surveys of such nature, the quality of primary data, the information elicited from the study population, on which a number of sophisticated statistical, (sometimes computerised) tests are done, is not good. A lot of care was taken in this survey to ensure quality of work. For example, a lot of attention was paid to the proper *training of the survey team*. One aspect of this training was getting well-versed with the questionnaire The survey team consisted of two types of women; the majority belonged to the working class from the slums in Delhi dr. rural areas who had undergone training as health workers and were working as health workers for the last three yean; the other group consisted of middle class women activists with or without a medical background who had participated in other surveys during the course of their work. All the members were literate but most were conversant with only Hindi and, therefore, the proforma was prepared in Hindi. All the members had volunteered and were not paid any special remuneration for their participation in the survey. About a month prior to the survey, the proforma was explained in great detail to the health workers. At first the questionaire was greeted with some amount of scepticism as it seemed impossible that women would remember their menstrual history in such details. The questionnaire was, therefore, tested out on the health workers themselves, most of whom were women in *their* twenties and thirties, and as each one tried to answer the questions, it became apparent that memory recall was not such a problem after all. The health-workers became convinced that if they could remember their menstrual history of the last two years, given the fact that no conscious effort had been made in the past to store this memory, then surely women in Bhopal with the event of the gas leak acting as a spur for memory recall would remember the menstural disturbances they had gone through since the gas leak. The questionnaire was then administrered to some of the households in the slums of Delhi by the health workers. Based on the information collected the proforma was pruned and modified.

A) Pregnancy Outcome

A total population of 8.165 in 1,632 households was surveyed from the 22nd to 29th of September, 1985. Table 1 gives the Foetal Death Ratio* which indicates the toxic effect of the gas-leak on pregency.

Table 1:Facial Destis Ratio*

		•Before gas-leak	••After gas-leak
(1)	No of deliveries	255	253
(2)	No of spontaneous abortions	24	115
(3)	No of still births	1	13
(4)	Total no of conceptions (1+2+3)	280	381
(5)	Foetal Death Ratio•••	8.6	31.33

• This is the events during the control period i.e from January 1984 to the 2nd December, 1984 from now onto be referred to as BGL:

•• This is the events during the post gas leak period i.e. from the 3rd December '84 to the 29th September '85, from now on to be referred to as ACL:

••• FDR = 2 + 4 x 100.

The Foetal Death Ratio or the overall spontaneous abortion rate after gas leak is 31.33 which is significantly higher than the spontaneous abortion rate of 8.6 before the gas leak.

Table 2 compares the quarterly distribution of spontaneous races. The differences in the ratios between the quarters is statistically highly significant. Difference in the rates of abortion between the three quarters, la the period BGL and ACL are highly statistically significant.

Table 2: Quarterly Foetal Death Ratio Before and After Gas leak

Quarter :	LB + SB•	BGL No. aborted	FDR	LB + SB	AGLNo aborted	FDR
JAN MAR	42	4	8.69	6	27	26.21
APR-JUN	84	9	9.67	77	24	23.76
JUL-SEP	55	4	6.78	82	20	19.23
OCT-NOV	74	1	-	-	-	-
DEC	26	44	-	-	-	-

• LB = Live Births. SB = Still Births.

B) Effect on Menstruation

In the MFC study conducted in March 1985, it was observed that gas-affected women were suffering from short-ended menstural cycles, altered pattern of discharge, dysmenorrhoea (excessive pain during menstruation) and excessive white discharge. The difference was statistically significant [4]. In this study, an attempt has been made to study this change further.

It was found that out of the 571 women whose menstrual history was studied in detail, in 2.97 per cent (17 women) menstrual bleeding used to be for 8 or more days Before the Gas Leak (BGL). This proportion had gone upto 5.77 per cent (i e, 33 women) After the Gas teak (AGL) 142 women (i e, 23.87 per cent) reported change in the length of their menstrual cycle: 80 women (14.01 per cent) reported a shortening of menstrual cycle by seven days or more. Table 3 gives the distribution in the affected women of this change in the length of the menstrual cycle.

Menstrual histories also tried to ascertain the number of episodes of delayed and missed periods before and after gas leak in this population. The results are given in Table 4.

C) Other Gynaecological Disorders

In February and March 1985, a clinic was set up by a gynaecologist, Dr Rani Bang, with the help of Dr Mira Sadgopal, in one of the worst affected bastis in Bhopal to assess the damage done to the reproductive system of women. These two members of the Medico Friend Circle found that out of 218 women examined in this clinic, 90 per cent had excessive white discharge,

79 per cent had Pelvic Inflammatory Disease, 75 per cent had cervical crosion or endocervisitis (inflammation of the mouth of the uterus) and 31 per cent complained of increase in bleeding [6].

The women who come to such a clinic do not constitute a Tandom sample; and those who are suffering are more likely to come to a clinic. These figures, therefore, overestimate the incidence of the problem in the community. But these figures were much higher as compared to those found in a similar clinic in a basti ahour 10 km away and in absolute terms also these figures are so startlingly high that they assume great significance. Similar findings were reported by a study conducted by a group of voluntary organisations [7]. It was, therefore, decided to run a similar clinic again in the same basti, doctors, helped by a male gynaecologist, Dr Sanjeev Kulkarni.

During the five days of the clinic 159 pregnant and 184 non-pregnant women were cumined. Out of the 184 non-pregnant women, 21 (i e, 11.4 per cent) were suffering from Pelvic Inflammatory Disease; 26 (i e,14.8 per cent) had cervical crosion/endoservicitis; and as many as 45 (ie, 24.45 per cent) were suffering from inflammation of the vagins/white discharge. The discharge from the vagins was typically profuse thiek, whitish yellow, without any foul smell or local irritation, unlike any commonly found vaginal discharge of inefective origin.

Table 3: Percentage Alteration in Cyclo-length After Gas Leak

Remained same	:	75.19 (429)
Increased by 7 or more than 7 days	:	3.67 (21)
Decreased by 7 or more than 7 days	:	14.01 (80)
Irregular	:	5.95 (34)
Stopped	:	1.22 (7)

Table 4: Epiodes of Delayed and Missed Periods Before and After Gas Leak

		BGL	:	AGL
Delayed Period	:	16		64
Missed Periods	:	14		73

(Period periods-amenorrhom (lack of menstruction) from 5-8 weeks; Missed periods- of more than 8 weeks which was not reported as a spontaneous abortion by the woman.)

disorders have been caused by the pathological changes in the reproductive organs brought about by the poisoning of the body due to the gas leak.

Fortunately compared to February-March 1985, the proportion of women suffering from these gynaecological disorders has come down a lot in September 1985. But still this proportion, found 10 months AGL, is high as compared to a normal population. This fact further corroborates the argument that the gas leak has led to a continued generalised poisoning of the body of the affected populaion.

Recommendations

1) The gas affected women of Bhopal have silently suffered from the physical and psychological agony of abortions, menstrual disorders and inflammation of their internal reproductive organs. These sufferings are in addition to (he other health problems caused by the gas leak. These specific additional problems of women have not been properly studied and documented by bodies like ICMR. This survey, conducted by voluntary effort and planned and executed with meticulous regard for accuracy, has scientifically proved that the reproductive system of gas affected women has been seriously damaged. Further study with similar approach be urgently conducted by the official agencies on an extensive scale to assess the status of the reproductive system of each and every gas affected woman. On this basis adequate compensation should be given to those who have suffered from these problems.

2) The menstrual and other gynaecological disorders reported above should be kept in mind by all health personnel in Bhopal, white dealing with their patients. Women with these problems should be listened to with respect and proper treatment be given to them. If these problems continue to be attributed to “compensation-neurosis,” or to “usual bad hygiene of poor women.” these women would continue to suffer silently due to this neglect. At least now let there be a proper recognition of the fact of these gynaecological problems and their cause. Would this be too much to expect from the health authorities in Bhopal?

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ABORTION RATE AMONG GAS VICTIMS UP

The gas leak in Union Carbide's MIC plant in Bhopal in December 1984, has caused a four-fold increase in abortions, menstrual disorders and inflammation of reproductive organs among women, according to a survey conducted by the Medico Friends Circle (MFC).

The survey on the women in the gas-affected area of Bhopal was conducted in September 1985, by the M FC, a group comprising people with medical and non-medical backgrounds.

One of the most important findings of their report "effect of Bhopal gas leak on women's reproductive health", a summary of which was released here today, is the four-fold increase in spontaneous abortions since the gas leak, indicating a high likelihood of foetal abnormalities. Spontaneous abortion rates have been accepted the world over as crucial evidence in assessing the extent of toxic hazards to human health in at least two public controversies in the United States of America, relating to one of them the herbicide, agent orange.

The foetal death ratio or the overall spontaneous abortion rate after the gas leak has shot up to 31, 33 which is significantly higher than the rate of 8.6 before the leak.

The report said in an earlier study conducted by the MFC in March 1985 the affected women were suffering from short-ended menstrual cycles, altered patterns of discharge, dysmenorrhoea and excessive white discharge. In the some study, it was noticed among women in the reproductive age group, significant alteration in menstrual cycles.

In the present study, 23.87 per cent of the women reported change in length in menstrual cycles to add to the evidence that women's reproductive health in general was affected by the leak. About 14.01 per cent reported that their menstrual cycles were more frequent after the leak. These women are likely to develop anaemia.