

## **Interventions to Balance Sex Ratio at Birth in Rural China**

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### **Background**

Almost all parents have preference to the number and sex of children, somebody like boy more and somebody like girl more. The ideal sex composition of children to most couples in China is to have one boy and one girl (Zheng, 2004), which was also true in China for the last two thousand years. If there were no limit to number of children, and if a couple had very strong sex preference of children, they would give birth one after another until they achieve the ideal sex structure of their children. However, there is hardly such a case in modern days since the higher cost of an “extra” child is not affordable to most families, the costs include economic, social, opportunity, and political. A couple under the double pressure of strong sex preference and limited number of children affordable may choose to select sex of a fetus in an unnatural way—if there is a way, that is the situation in some part of China today, and in some other Asian countries such as India.

The sex ratio at birth (SRB) has been rising since late 1980s in some rural areas. Existing researches and investigations show that the direct causes of higher SRB are underreporting or misreporting of newborn girls and sex selected induced abortion, as well as some infant abandonment and occasionally infanticide. Numerous researches have been published in the last decade on boy preference in rural China. Although the state and local government have taken specific measures such as education and prohibition of sex selection screening and induced abortion in higher trimester, the rising SRB has been worse in some areas. In spite of the debate on the degree of seriousness, the higher SRB in most areas has raised common concern. The continuous abnormally high SRB (or, reported SRB) is a fact and need to be dealt with urgently.

Discrimination to girl is not a new issue in China. There was a higher girl infant mortality in history, and the discrimination could be observed from the first two censuses in China during the early 1950s and early 1960s (see figure 1). While the sex ratio of infant

was quite balanced in each census, it increased with age in 1953 census population, implies a consistent girl discrimination which caused a higher girl child mortality. In 1964 census the situation improved a little. The imbalanced sex ratio at age 0 has been observed since the late 1980s. The 2000 National Census shows a strong discrimination toward female fetus rather than girl child.

[Figure 1 is about here]

The imbalanced SRB was believed a consequence of underreport or misreport of girl child and sex selected induced abortion mainly in the 1990s (Zeng, et al, 1993), however, it is found that even more boys were underreported during the 2000 Census, which tells that the imbalanced SRB is quite real (Yu, 2003). Although son preference is the first reason to be blamed, the issue is not that simple. Preference for boy and discrimination to girl has a long tradition in China, which is a bad tradition indeed. However, such a preference is also a conscious choice of parents. Preference to boy is related to traditional family role of boy and girl, such a tradition changes very slow compare to social and economic development. The gender role in most society is also favor in male not female. Although women's rights and benefits has always been protected by written laws and regulations, they are often violated and neglected in practice. Women were found often in disadvantaged position in education, employment, promotion, marriage, family responsibility, land distribution, and in heritage. The national principle of "men and women are equal" remains an abstract slogan in some occasions, and negatively impacted women's status and development. The parents are well aware of the inequity of men and women hence expect that a son would have better future and therefore a higher payback. Furthermore, the traditional responsibility of old age care is taken by son and daughter-in-law in most part of China, especially in rural area, where family support is almost the sole depend of elderly. Therefore, the higher SRB is a consequences of combined social problems and caused by multiple factors, the problem is need to be solved in a comprehensive way by all sectors' combined efforts.

The response to imbalanced SRB published by 2000 National Census seem miss the mark, most discussions in media even in academic field focuses on the possible consequences of higher SRB, such as marriage squeeze in the future, and even with a certain large number of men in the future may not find a wife. Furthermore, the responsibility of balancing the SRB seems to be on population and family planning sectors, and the department responsible to the job is IEC under the National Population and Family Planning Commission.

There are mainly two strategies in balancing the SRB, one is strictly prohibiting identification of fetal sex for non-medical purposes and prohibiting sex-selective abortions, another one is a nationwide campaign on "Care for Girls."

The imbalanced sex ratio at birth is a complicated social issue, and it could not be solved only by administrative measures. The changes to a more favorable social economic environment, changes in people's mind and practice also need to happen simultaneously. Hence there is a great and urgent need to review and assess existing intervention measures, study and develop more specific, more comprehensive, and more

effective intervention strategies.

This paper will review the current measures to balancing the high SRB, and discuss possible

## **Research Framework**

According to existing research results, the direct causes of a higher SRB may be: (1) son preference of couples; (2) easily accessible methods of fetus sex identification; and (3) medical or family planning service capable on higher trimester induced abortion. The most popular method for fetus sex identification is the use of ultrasonic device, such a device is widely available in public and private clinics of every county in China, both urban and rural people can easily have the service with an affordable amount of cost. For example, some news reported that the cost for fetus sex identification is only 50 RMB yuan in Guangdong rural area. According to the family planning technical service protocol of China, only hospitals or family planning service stations at county level or higher are certified for higher trimester pregnancy termination, for medical reasons. However, the implementation of the protocol and the management of pregnancy termination for non-medical reasons are relatively poor in some areas, which made possible sex selective induced abortions. Although the government has a strong desire to control the practice of fetus sex identification and sex selective induced abortion, couple's desire to have a son is even stronger in some areas. The son preference is affected by other factors combined together, such as local traditions, social-economic status, related policies, et al.

Figure 2 is a research framework about the determinants of higher SRB. This paper will be structured as the framework, to investigate each factor and discuss the current measures taken and possibility of further intervention. There are six parts in the figure, say, social environment, economic development, family needs, individual opinion, administrative strength, and technical capability. The six parts not only play independent roles in SRB, but also interconnected with each other, and the independent variables as well as their interactions affect the outcome variable in our study, the sex ratio at birth. The last two sets of factors, administrative/management factors and technical factors are actually the intervention measure at the end of line, and they are the parts that most intervention actions take place in China, they will not be the focus of this paper.

[Figure 2 is about here]

## **Social Environment**

Women's rights and benefits are all well-defined in related national laws and policies; however, the enforcement of those laws and policies still need to be monitored to ensure the rights and benefits. Some experts suggested that existing laws and policies need to be improved for gender equity; for example, the legal retirement age for government employee is 60 for men and 55 for women. Some local policies intend to in favor of families with only girls (mostly in land distribution), but still some other policies are not.

Although educational attainment for women has been improved in the last several

decades, women's average year of education is still less than that of men (Zheng and Lian, 2004), which is one result of lower economic status and lower political participation of women.

It is also found that there is a wage difference between female and male workers. The wage gap due to the difference in sector occupation is small; most of the wage difference between females and males is caused by discrimination, especially among the less prestigious occupations (Zhang, 2004). Empirical research also found that the threshold for women to enter labor market is higher than that of men, and women exit (retire) from formal employment earlier than men (Cai, 2002, pp245-286).

Tradition role of women in family and the marriage custom also put women in a disadvantaged position. In most places of rural China, wife lives with the family of her husband and women is only responsible to household works within the family. The traditional practice does not encourage parents to invest much on a girl's education since she is going to be married out to other family, and women is less likely to participate in village public affairs. In some counties of Hubei Province where son preference is not strong, there is a tradition of husband living with wife's family and daughter is responsible to take care of elderly. It is found that SRB had been always normal in these areas.

The public image of women is also often stereotyped by media and in textbooks. Women are often portrayed as a good wife, or in a vulnerable position to be protected. The way that media addresses the problem of imbalanced sex ratio is to assume the shortage of women or shortage of potential wives for MEN. Such comments and assumptions are somehow misleading the public (Bu, 2004).

## **Economic Development**

Researches found that the relationship between SRB and economic development are mixed and complicated. A higher SRB was observed in eastern coastal area in China around late 1980s and early 1990s, but not necessarily universal. For example, Zhejiang Province had a relatively higher SRB in 1990 Census, but three counties inside Zhejiang kept a quite balanced SRB. The situation has been improving during the last decade in most part of Zhejiang, given the economy there is still growing.

According to the data provided by 2000 National Census, sex ratios at birth are higher in eastern and southern China and it is found not correlated with economic factors at provincial level (Wang and Huang, 2004).

Economic development was found affect son preference in different ways: (1) a community with a better economic situation is able to setup old age security/support system so local people do not expect to depend on son providing support when they become older; (2) a developed local economy increases local employment, especially some labor intensive enterprises prefer recruit young women workers, which increased the proportion of rural women who work in a paid job, and sometimes lead to an improvement in women's status inside and outside the family; (3) family with more income could afford to seek sex-identification techniques so sex-selected induced abortion could be more popular; (4) where private business is booming, a rich family desperately need a son to take over the family business.

It is commonly agreed that economic development does not solve the problem of SRB imbalance naturally, but may play an indirect positive role.

Labor force migration is another social/demographic change that could have positive effect on SRB balance. The migration from rural to urban may change the opinion of rural couples and assimilate rural people, especial youth, with urban life styles, including the fertility desire (You and Zheng, 2002), therefore weaken the son preference. Migration also creates an opportunity for rural women to work and earn salary, which in turns re-value the role of woman in a family. A study took place in rural of Sichuan and Anhui in 2000 found that comparing to women who never migrated, returned migrant women were more open minded about gender relationships and more confident in negotiating with husbands; they hold a less “traditional” attitude toward the husband/wife relationship, have more knowledge and awareness about reproductive health, and tend to desire later marriage and fewer children. The research found that migration experience has served as catalyst to have a positive and pronounced impact on women’s empowerment, sometimes directly and sometimes through the increased income that women’s migration brings to the rural family. Many of the quantitative findings of the study have shown that the effect of migration is significant when other variables are controlled (Zheng and Gu, 2004).

## **Family Needs**

As mentioned earlier, the need for a son is often a conscious decision of couples, after balancing the cost and benefit of children in their life. Since the role of children in a family is often clearly defined, preference of a son is quite reasonable for those who still depend on son(s) to provide support in old age, to work in farm or in family business, to deal with family affairs, and carry on the family name (Xie, 2002). Although agricultural modernization is on the way, in some rural area a son or sons are still needed for heavy labor, for example, in less developed mountainous areas.

Numerous journal articles and discussions emphasize the importance of a son to a family: son(s) as the key for old age support, as the head of the family, as an honor of the family, and as one kind of goods that every family has. Son preference is also related to family’s status. It is found that couples are more desperate in need of a son if the family has lower social status in the village. As the management on controlling of sex selective abortion is often put burden on the pregnant woman, woman are in double jeopardy—subjects of controlling the sex selective induced abortion and pressure to give a male birth within a family. In some rural area, a woman could be divorced if she could not give birth to a son.

An anthropological study in Zhejiang village explained that the family needs often were put on the top of individual’s need among rural residents (Li and Chen, 1993). The deeply rooted family need and culture regarding to roles of son and daughter are very difficult to be removed in a short period of time; they would far behind any social and economic development. By reviewing all surveys about fertility desire, one of the conclusions is that the desire for number of children has been changed during the last two decades, but the preference for the sex composition of children has not changed too much (Feng and Zhang, 2002).

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Some of the needs of sons could be simply blamed as an old tradition, but some of the needs are quite practical and reasonable. Unless the society and the government solve the problems of old age support and to reform the agriculture structure, some needs of sons will sustain regardless all the campaigns and IEC activities.

## **Interventions to balance sex ratio at birth**

The serious imbalanced sex ratio at birth has raised concern of the Chinese government. The national leader Hu Jintao emphasized the importance of a normal SRB and suggested a goal to stop the rising SRB in the next three to five years. The issue is also included in the “Suggestions to Develop 11<sup>th</sup> Five Year Plan for Economic and Social Development” by the Central Committee of CCP (The 5<sup>th</sup> Meeting of 16<sup>th</sup> CCP, 2005), which identifies that bringing SRB back to normal range as one of the major tasks in the next five years.

### **(1) Legal intervention**

In fact, the issue had raised attention of the government back to late 1980s. Ministry of Health and State Family Planning Commission jointly distributed a regulation by Beijing Family Planning Commission and Bureau of Health on “Prohibition of fetus sex identification for non-medical purposes” in 1986. Ministry of Health distributed an urgent notice on “Strictly prohibition of medical practice on fetus sex identification and abuse of techniques of artificial insemination” in 1989. Another joint notice issued by the Ministry of Health and the State Family Planning Commission was distributed in 1993 on “Restatement on the prohibition of fetus sex identification practice.” The Supreme Court and the Supreme Procuratorate issued a notice on “Punishment according to the law on criminals against family planning.” Law of Maternal and Child Health implemented in 1995 is the first law states that fetus sex identification is strictly prohibited.

Article 22 in the Law of Population and Family Planning states that “Discrimination against and maltreatment of women who give births to baby girls or who suffer from infertility are prohibited. Discrimination against, maltreatment, and abandonment of baby girls are prohibited.” Article 35 in the law again states that the “Use of ultrasonography or other techniques to identify gender of fetus for non-medical purposes is strictly prohibited. Sex-selective pregnancy termination for non-medical purposes is strictly prohibited.”

In year of 2002, National Population and Family Planning Commission, Ministry of Health, and State Food and Drug Administration jointly issued a “Regulation of Prohibition of Fetus Sex Identification and Sex Selective Pregnancy Termination for Non-Medical Reasons (referred as the Prohibition Regulation later in this report).”

In 1998 and 2002, National Population and Family Planning Commission jointly issued documents to intervene imbalanced SRB comprehensively with other 11 ministries. The documents defined responsibilities of each ministry/sectors to keep the SRB at normal level.

There are mainly five legal ways to stop fetus sex identification and sex selective

induced abortion.

- 1) Definition of legal fetus sex identification practice  
As defined by the laws (Maternal and Child Health, Population and Family Planning), fetus sex identification and sex selective induced abortion for non-medical purposes are illegal, and any violation of the law will subject to criminal sanction and confiscation of license.
- 2) Prohibition of sex selective pregnancy termination  
The punishments for non-medical purpose of sex selective pregnancy termination are: confiscating earnings from services, fine, license cancellation, and even criminal sanction.
- 3) Control the distribution of abortion pills  
Abortion pills should be only available at certified health and family planning institutions and should not be sold in any retail drugstore or by any individual.
- 4) Infant death report system  
Medical institutions should provide death certificate for newborn death in the institution, and inform local family planning department about the event. Parents should report newborn death within 48 hours to local government and family planning department, if the death happens outside medical institution. Any practice of making fake death certification is criminal.

Amendment of Law of Protection on Women's Right and Benefit (took place in 2005) should be helpful in solving the problem of son preference in an indirect way. Changes in other Laws and regulations even take longer time, but some laws and regulations in the process of initiation and modification have considered gender equity issues, such as the draft of Labor and Employment Law stated that sex discrimination in employment is illegal.

## **(2) "Care for Girls" campaign**

The National Population and Family Planning started a pilot intervention project, Care for Girls, in March 2003. The short-term goal of the project is to create a favorable environment nationwide for girls' development and reverse the trend of increasing high SRB through integrated measures in the next three to five years. The long-term goals are: (1) to create an incentive mechanism nationwide for girls' development and for families practiced birth control with only female children; (2) to change the fertility ideology of public regarding sex preference; and (3) to balance SRB by year of 2010 (NPFPC, 2005). The project has been implemented in 11 provinces with most serious high level of SRB, and one county with highest SRB was selected as pilot county in each province. The project activities including advocacy and publicity through media and other IEC approaches, to help girls stay in school and complete nine-year education, to help the families in poverty with only daughters, and to encourage newly married couples reverse the tradition of living arrangement. The project also emphasizes on administrative measures to crack down on fetal sex identification practices and sex selective induced abortion, and to eliminate female infanticide or girl baby abandonment. However, the effect of such a campaign has never been formally assessed, and tradition may not

change in such a short time.

### **(3) Other related activities**

There are other governmental activities played a role to balance the SRB, though not initiated for the purpose.

The Publicity Department of CCP and NPFPC initiated a campaign in early 1999 called “**new notion of marriage and childbearing into ten thousand families**,” and the campaign will continue for the next five years. This campaign aims at changing the traditional customs on marriage and childbearing. The slogans of the campaign include “men and women should be equal,” “sons and daughters are both blessings to the family,” “daughter should also carry on the family name,” “husband should be responsible to family planning.” Gradually the campaign integrated with “Care for Girls” IEC activities.

The **Program of Happiness**, a project especially set up to help impoverished mothers, has helped them to improve their life quality, not only lending them money but also paving the way to self-support. Launched a decade ago in Beijing by non-profit organizations, China Population Welfare Foundation, the China Family Planning Association and the China Population Daily, the program has funded about 150,000 impoverished mothers with an accumulative 260 million yuan (US\$32.1 million) in 341 counties throughout the country by the end of 2004. As a result, some 600,000 people have benefited from the program.

Another program piloted in year of 2004 in some mid-western rural areas to support only child or two-daughter families by a subsidize of 600 RMB Yuan annually to each parent who is age 60 or older through the rest of their life. It is called “The System of Social Support for Some Rural Families Practicing Family Planning (**Social Support System**).” This system is an incentive or reward to those who practiced family planning according to the local family planning regulations. Although the amount of money is not very large, it is still useful for elderly in less developed rural areas. It also serves as a message of government support, especially to couples who do not have a son. At the same time, the central government encouraged the eastern provinces to initiate local pilot programs of social support with their own fund. In the state-designated and locally initiated pilot sites, this system has benefited 310,000 and 500,000 rural residents respectively, involving a total of 1.8 million people in families that practiced birth control (Pan, 2005).

### **(4) Administrative management**

All provinces/autonomous region/municipalities have defined administrative review and approve procedure for induced abortion beyond 14-16 weeks of pregnancy, and all regulations modified according to the Law of Population and Family Planning also have defined that the practice of fetus sex identification and sex selective induced abortion are illegal. Some provincial regulations have detailed definition and punishment to any violation. For example, the Regulation of Family Planning of Hebei Province states that couples had induced abortion beyond 14 weeks of the pregnancy (second parity) without approve by county family planning department cannot get official approval for another

pregnancy.

Regulations also applied to the operation of ultra-sound scan machine. For example, it required that two technicians should be presence at the time of use of ultra-sound machines for maternal check-up, to prevent any possible sex-identification practice of individuals.

Up to date, the campaign against discrimination to female fetus and to baby girls have mainly implemented by National Population and Family Planning Commission as well as All China Women's Federation, there is still need a joint force from other governmental departments and from civil society organizations. Furthermore, the participation of local people is very important to the intervention, it will strengthen the positive effect.

### **Discussion: intervention in combined effort and with a clear target**

The ongoing interventions, if well designed and implemented, will have some short term and long term effects. The prohibition of fetal sex identification would have been stopped the practice temporarily, but the effectiveness in the long run is questionable, if the causes of girl discrimination were not eliminated. Some local regulation eliminate induced abortion in higher trimester to only medical need, which may force such a practice go underground, and make the practice more harmful to the women. Meanwhile, study and formulate socioeconomic policies and social security systems favorable for girls' growth and for families with only female children would be more effective in the long run, but the process needs time. Any expectation on immediate impact is not practical. If the main efforts were put on the short-term effect intervention, more opportunity and more time will be lost.

Not all couples in childbearing age have an intension to select the sex of fetus, the practice is quite limited and has clear local patterns. The right target group need to be identified to work with. The pilot program of "Care for Girls" has been carried out in 11 county/cities where the SRB at 2000 was found more higher, this could be seen as a way of targeting. On the other side, the opinion and need of target group should also be identified to design specific interventions. Up to date there is no publication mentioned any needs assessment in a standard way. None of the pilot program has been assessed on the impact yet.

The interventions, or activities/programs that were not initiated for the purpose but have a significant contribution, can be classified into three categories: incentives, advocacy, and legal/administrative management. Based on results from a research supported by China/UNFPA country project (2005), the characteristics of and comments for the three approaches are summarized in Table 1. Advocacy is necessary and somewhat effective but the targeting population should be redefined or adjusted. Legal/administrative management intervention may have an immediate effect but need to be reviewed and assessed from different perspectives. Incentive/social support programs should be strongly recommended for achieving a long-term effect.

[Table 1 is about here]

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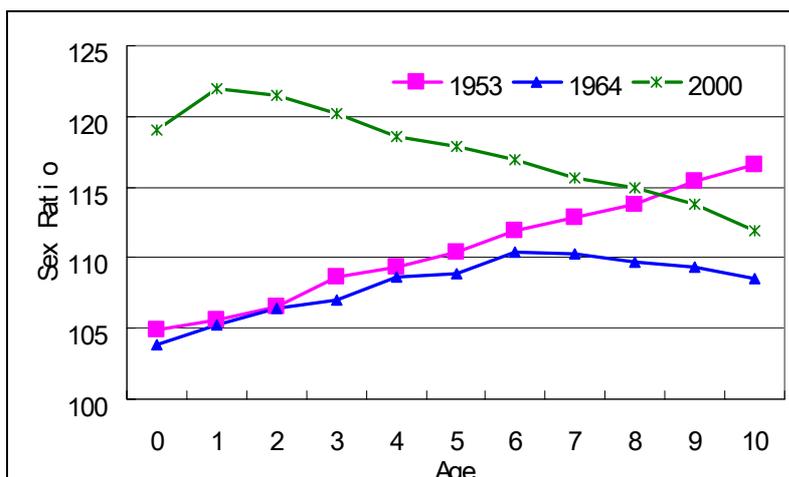


Figure 1 Sex ratio of age 0-10 population, 1953, 1964, and 2000

Source: the census data of 1953, 1964, and 2000.

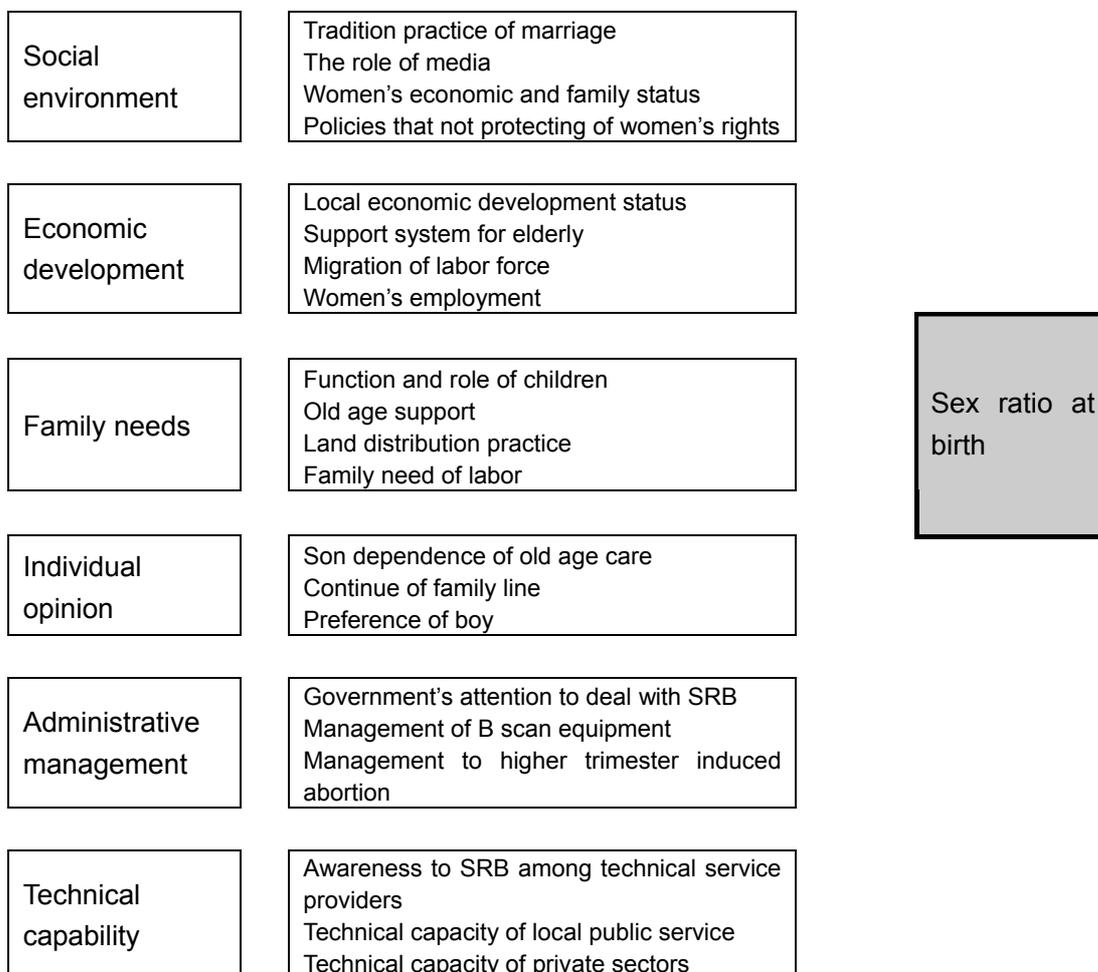


Figure 2 An analytic framework of SRB determinants

**Table 1 A summary of current interventions on high SRB**

Activity/program	Target population	Long term effect	Short term effect	Comments
Social support system	Rural parents ≥ age 60 with 1 child or 2 daughters	Encouraging	Unclear yet	Need to convince people that it is not a temporary policy
Family planning incentive regulation or activities	One-child or two-daughter families and the children	Encouraging	Some effect observed	Some incentives depend on local gov. finance
Advocacy campaign/IEC	Couples of childbearing age and all people	Encouraging	Observable effect	Should develop advocacy strategy targeting leaders
Management of fetus sex identification	Couples who are eager or curious to know the sex of fetus	?	Somewhat effective	Need awareness and fully cooperation of public and private sectors as well as effective strategies
Management of sex selective induced abortion	Couples with strong desire to have a son	?	Somewhat effective	Difficult in full control; may lead to some ethical problems