



**NEGATIVE
POPULATION
GROWTH**

**THE NPG
FORUM**

The Second Great Wall Of China: Evolution of a Successful Policy of Population Control

by **J. Mayone Stycos**

J. Mayone Stycos is Director of the Cornell University Population and Development Program, and the author of books and papers on population problems in Latin America and the Middle East.

Flushed with his victory over the Chinese nationalists, Mao proclaimed in 1949 that "Of all things in the world people are the most precious." On the eve of the formation of the People's Republic, he forecast a China rich in both people and material goods, explicitly attacked the pessimism of Malthus, and reaffirmed the classical Marxist theme that under communism no problem of overpopulation could ever occur. On the contrary, since labor was the basic source of wealth, more people coupled with socialist organization could only mean more wealth and power. How does it happen that less than three decades later China unveiled the most radical program of population control the world has ever seen? And in the light of the program's success, what lessons does it have for other nations struggling with problems of population?

Marx Versus Malthus

The Chinese have managed to be remarkably flexible about ideology, without losing the great advantages to the state that ideology offers. In the political sphere Marxist orthodoxy has not impeded the see-sawing of relations with Moscow; and in the economic arena, the Chinese have been willing to try everything from back yard steel smelting and collectivization to free enterprise. This same pragmatic spirit has characterized their stance on population. Current Malthusian policies have been renamed as socialist but with a Chinese twist. According to a rhetorical question raised by the Vice-President of the Chinese Academy of Social Sciences in 1987, "In a society of public ownership where the production of material wealth is carried out according to plan, can there be anarchy in population?"

During a visit last summer I asked a number of Chinese family planning officials how the current Malthusian ideology could

be justified in a Marxist regime. One official said that Marx lived in different times and had never dreamed that population density or growth could reach such levels. Another argued that economic development under socialism had not been as rapid as Marx had predicted and that these unanticipated circumstances demanded new policies. Virtually all persons I spoke with stressed the consistency of socialist planning with family or population planning, in the sense that neither production nor reproduction was a matter that could be left entirely to individuals. Still others essentially replied with a shrug. All of the replies seemed to be saying that when push comes to shove the ideology is bent but not discarded.

The Winding Demographic Trail

Current policies are the outcome of a long and tortuous ideological controversy and crude population experiments that were themselves products of broader political and economic shifts in the People's Republic. Also influential in the development of policy has been the steady improvement in contraceptive technology.

The optimism that followed the 1949 revolution was soon dissipated by the failure of socialism to prevent food shortages, and by a 1953 census that showed there were 100,000,000 more people than had been supposed. As a consequence, local health departments were quietly ordered to set up family planning clinics, but the technology was both crude and controversial. Condoms, diaphragms, and jellies were known, but in short supply. Abortion, though theoretically favored as a socialist approach to the liberation of women, required medical expertise and septic conditions. Moreover, it was frowned on by the medical profession and, until 1957, permitted only under stringent conditions. Female sterilization was even more expen-

sive than abortion, and required an abdominal operation. Perhaps desperate to offer the people something in the way of contraception, even folk methods (such as swallowing spring tadpoles) and acupuncture were recommended.

This campaign probably had no impact on national birth rates, and, in any event, came to a halt in 1958 with the launching of the Great Leap Forward. For the next few years, although family planning facilities, such as they were, were not removed, the promotional efforts ceased. Instead, the Great Leap produced a return of optimism concerning the benefits of socialist planning. "Surpass Britain and catch up with America" was a key slogan for the period, and attacks were renewed on pessimistic Malthusian views. People were again viewed as capital, and massive public works were organized utilizing tens of millions of laborers. The first secretary of the Communist Youth League boasted that "The force of 600 million liberated people is tens of thousands of times stronger than a nuclear explosion. Such a force is capable of creating wonders which our enemies cannot even imagine." (Cited by Aird).

The wonders were short lived. Agricultural production plummeted, famine ensued, and birth rates dropped precipitously — not because of family planning, but because the unsettled conditions delayed and disrupted marriages. The painfully obvious failure of the new socialist policies led the government to step up both the birth control program and its promotion in 1962. A mission was quietly dispatched to Japan to discover how the Japanese had been so successful in curbing their birth rates, and in a 1964 interview with journalist Edgar Snow, Premier Zhou Enlai expressed his admiration for their achievements. Around this time two major contraceptive breakthroughs occurred. IUDs had been successfully introduced in a number of countries and a safe and simple method of inducing an early abortion, the vacuum pump, had been developed and simplified in China. Thus, two effective and relatively inexpensive methods became available for the first time. Urban fertility began to decline, dropping from about six children per woman in 1963 to about three by the late 1960s. (In the rural areas, comprising about 80 percent of the population, fertility did not begin to decline until the 1970s.) However, during the Cultural Revolution in the late 1960s the program was again suspended, and then reactivated with full force in the early 1970s when a 1971 State Council Directive announced that "comrades at every level must strengthen leadership and conduct penetrating propaganda and education, so that late marriage and birth planning become voluntary behavior." To expedite the policy, paramedics in the cities and rural midwives and barefoot doctors in the country had "planned births" added to their responsibilities. Volunteer health workers began the detailed supervision of contraception at a neighborhood level that much later came under attack as "coercive." Ruth Sidel, who was permitted to visit China in the early 1970s, described the procedure used in Hangchow neighborhoods: "Each month the health workers go from door to door to determine what method of birth control each woman in the block is using. A chart is kept on the wall of the health center indicating how many women use what kind of contraception."

The politicization of birth control became a major characteristic of this and subsequent campaigns. Family planning was now rationalized less in terms of the health of mothers and children, and more in terms of political goals — small families would speed world revolution, consolidate the dictatorship of the proletariat and facilitate preparation for war. The "gang of four," including Mao's wife, was accused of anti-family planning intentions later in the decade, a sure sign that family planning had achieved the highest priority.

A number of provinces began to introduce demographic targets for their cities and counties, followed by communes, brigades and production teams, many of whom created public charts of the targets, as well as lists of those who were to have births in the following year. At each of the many levels of organization family planning was introduced via "thought work" or "study." At these meetings, testimonials would be given by those who had married too early or had too many children, and the evils of the old ways of thinking would be exposed. Group leaders would highlight new thinking and tell with pride of their own contraceptive efforts. These were standard techniques for political indoctrination and for innovating whatever economic reform was current. The Chinese have always emphasized the importance of persuading, not compelling, and these techniques, though heavy handed and smacking of "brain washing" to Westerners, were simply adapted to a new theme. By the late 1970s contraceptive pills had been certified, a simpler technique for female sterilization (mini-laparotomy) was introduced, and a relatively autonomous system of service delivery was created — in contrast to the integration of family planning with other health services, the organizational form favored by international agencies.

New Targets For The '80s

By the end of the decade about 70 percent of the couples of childbearing age were using effective methods of birth control, and the abortion rate (318 per 1,000 live births) was substantial. The Chinese were now confident enough to announce to the world in 1979 that they would try to stop population growth by the end of the century, and their public rationale for the program was unabashedly Malthusian. *The New York Times* cited the Deputy Prime-Minister as saying that raising a child to the age of 16 cost \$1,000 in rural areas and nearly \$4,500 in big cities. "Therefore, she said, both the people and the state could save a fortune by cutting the birth rate." (August 13, 1979).

Western spokesmen may have talked this way, but rarely put their money where their mouths were. That is, they supported family planning, but not population planning. The former implies that couples decide the number they want, while government helps them to achieve that number, regardless of the demographic consequences. Population planning, on the other hand, implies not only the setting of national demographic targets, but a concrete program to achieve them. In China this means inducing couples to have the number of children the government wants them to have. By the end of the 1970s, the Chinese had taken the tough decision that this number was *one*, and put into motion an unprecedented system of local target setting, grass roots monitoring, financial and social incentives and disincentives, meticulous monitoring of conformity, and massive educational campaigns.

As early as 1981, the now famous "one-child certificates" — contracts by couples with 0-1 children, who agree to have no more than one — had been signed by 57 percent of 20 million eligible couples. By 1982 China became the first nation in the world to build population planning into its Constitution: "The State promotes family planning so that population growth may fit the plan for economic and social development." It also stipulates that "both husband and wife have the duty to practice family planning." In the developed countries, family planning had had a long history of battling to make family planning a human right. The Chinese moved past this, and in their new Constitution explicitly made it a *duty*.

That the program is working hardly seems in question. Nearly one-half of the births in 1981 were first births, as compared with one-fifth in 1970. In the latter year the average woman finished childbearing having had six births, but by the mid-1980s between two and three births was the average. A higher proportion of couples in China than in the USA are using modern family planning methods. These are incredible achievements for a huge and underdeveloped country. But what is the price, and is the payoff sufficient to justify that price?

The Chinese think the stakes are huge. Their general goals for economic development have been set high, and they are fiercely determined to achieve them. Since the revolution they have been highly successful in reducing mortality and raising educational levels, and have redistributed the nation's wealth in a highly equitable fashion. But their social program has had more dramatic successes than their economic, though by international standards growth in GNP since the revolution has been high. In 1978, just a year before the one-child policy was announced, the Chinese specified long range economic plans that were ambitious but more realistic than earlier ones. No longer trying to "catch up to America" by the end of this century, their new targets were a quadrupling of the gross national product and a tripling of the per-capita product. To do this they unleashed programs that accelerated private initiative on the one hand, and tightened up on population growth on the other. Chinese demographers calculated that if the annual population growth rate of 1.5 percent continued until the end of the century they would have 116 million more people than the 1.2 billion they targeted for the year 2,000. 116 million is the population of Bangladesh today.

The 1982 census, with heavy technical and financial assistance from the United Nations, proved beyond any doubt that China had been the world's first nation to achieve a population of one billion. Since the census, about 13 million persons — roughly the population of Afghanistan — have been added each year. The massiveness of these population figures seem to have sunk in at the highest levels, and are used to justify the tough population policies. As China's Foreign Minister put it recently, "If the United States population were five times its current size, it would be fairly easy for members of Congress to agree on China's family planning policy" (*The New York Times*, March 28, 1989).

Why "members of Congress" don't agree has to do with what critics such as Nick Eberstadt term the "grave and obvious human rights abuses" (*The New York Times*, February 22, 1984), or what Julian Simon calls Chinese "arm-twisting," (*Asian Wall Street Journal*, February 24, 1988). However, the Chinese are used to arm twisting — they have experienced it with respect to production quotas, health practices, political activity and ideology. In all of these areas they are accustomed to government programs and targets that use the many administrative layers and political groupings to bring pressure for conformity. Although it is now clear that an iron fist lies under every silk glove, dissenters have traditionally been brought into line not by coercion but by peer pressure and education. "One of the proud boasts of China (has been) that even 'counter-revolutionaries' were dealt with in an allegedly humane way, by 'educating' them . . ." (Richard Bernstein, *The New York Times*, June 6, 1989). While this may not justify the peer pressure methods used in the case of family planning, in the Chinese setting the practice is far less extraordinary than it would be elsewhere.

A Visit To The Provinces

Once national guidelines and demographic targets are set,

provinces, cities, counties, villages, and even smaller units negotiate their own targets and devise their own ways of persuading lower administrative groups and individuals to conform. The Chinese allow considerable flexibility at each administrative level and carefully monitor the results. By encouraging competition and innovation (within narrow limits), in effect they release a multitude of trial balloons that help them determine what works and what does not. Successes are rewarded with public praise and material benefits. Failures are variously penalized.

To carry out a national guideline such as a target number of births for the coming year requires thousands of lower level decisions and a precise control of demographic statistics. This kind of statistical control is often lacking or slipshod in other countries, and its fidelity in China in no small way accounts for a successful program.

An example can be given from Sichuan, a province with over 100 million inhabitants. The provincial program director showed me their overall birth targets, which had been negotiated with the National Office of Family Planning. They were shooting for a birth rate of 18 per thousand population in the current five-year plan (1986-90), and 16 for the 1996-2000 period. To translate such targets into behavior, late marriage (at least 23 for women and 25 for men) is encouraged by cash bonuses and extended honeymoon leaves. After marriage first births are generally uncontrolled, but a number of attractive incentives are put into effect if the couple signs a one-child contract. In any event the woman is expected to have an IUD inserted following the first birth. Second births are permitted only under specified conditions, which vary with geographic area and individual circumstances. The fine for an unplanned second birth is 10 percent of family income charged for a period of seven years. An unplanned third birth can increase the fine to 20 percent. Abortion is available and encouraged as a remedy for unplanned pregnancies, as is sterilization after two births.

To carry out the program the province spent about 122 million yen (about \$43 million in 1987), mainly on salaries for a not-so-small army of professionals and volunteers: over 600 provincial level professionals, 22,000 full-time personnel at the county, city and township level (including 5,536 who spend full-time at information and education activities), 75,000 part-time workers at the village level, and 570,000 part-time volunteers.¹

A visit to a township level family planning center serving an agricultural population of 20,000 revealed how the policies are carried out at a local level. The staff (a secondary level doctor and two assistants) seemed well aware of local conditions and alert to adapting the provincial policies to them: how a market every other day facilitates staff contact with the women, how family planning workers cooperate with agricultural extension workers, and how the new profit initiatives have motivated women to have fewer children. Without resorting to notes the doctor informed me that of the 3,946 women of reproductive age, 3,586 were practicing contraception and most of the remaining women were either just married or infertile. Fifty-five percent of the women were using IUDs and about one third were sterilized. Last year there were 137 abortions and 318 births, of which all but 33 were first births and none of which were third or higher order births. In comparative context these statistics are little short of amazing. This agricultural town in the heart of China has less than 16 births per 1,000 population, a rate not achieved by the United States until the mid-1970s.² It has a contraceptive prevalence rate that exceeds that of American women, while its abortion ratio (43 per 100 births) was well below that of the State of New York.³

The Will Of The People

“Coercion” means compelling people to do something that they do not want to do. Is it the case that the traditionally familistic Chinese, really want big families, but are being forced to have small ones? In fact, the Chinese prefer very small families — under two in urban areas and about two in rural areas.⁴ This is to be contrasted with the preferences of women in Asia and Latin America who want about four, or women in Southern African nations who want between six and eight (World Fertility Survey).

In one survey of 1,100 cases in Danjiang County, Hubei in 1986, the subjects were asked for the advantages and disadvantages of having more than one or two children. The expensiveness of children was seen as the major disadvantage, while economic assistance to their elderly parents was viewed as the main advantage. These financial concerns seem very plausible in the light of the last decade’s economic changes, and lend credibility to the statements of desired family size. Of special interest, however, were the high proportions who cited a concern for “overpopulation” as a disadvantage in having more children: 52 percent in the urban and 24 percent in the rural area. In most countries, family planning campaigns have de-emphasized its benefits to the nation and stressed its advantages for parents and children. The major thrust of the private family planning movement in the West has been maternal and child health and reproductive rights for women. The socialist countries of Europe have emphasized its contributions to female liberation, while the Catholic countries of Latin America stress it as an antidote for illegal abortions. China has been unusual in insisting that family planning is a patriotic duty that will accelerate the nation’s economic development.

This is nowhere clearer than in the opinions of the younger generation — those who have not yet begun their reproductive lives. I visited a secondary school in Sichuan that had introduced an experimental course in population education, with assistance from the United Nations Fund for Population. The teachers were proud of their efforts, and one of them had written out his strategy, which was mainly directed at getting students to make the connection between their individual behavior and the national welfare.

“Our students must be taught the basic views of Marxist population theory, ecologic balance and population control. . . . At first they thought this subject had nothing to do with them. . . . Many think that giving birth to a child is a person’s private affair. So we teach that carrying out family planning is important to the construction of socialist spiritual civilization. The students ideological problem was one of putting the state’s welfare before their own. Our population education is really a subject that can teach them patriotism.”

I was given translations of about a dozen essays written by the eleventh grade students at the conclusion of the course. We can assume that these essays were among the better ones, stylistically and ideologically, but one would have a hard time finding anything remotely resembling them in any other country. The examples below bear no trace of Western family planning’s emphasis on family welfare. Instead, they illustrate how the national interest requires personal sacrifices that the citizen should be proud to make:

***My country relatives told us about their neighbor who secretly had a second child. He was fined 2,000 yuan but he told others “In the future I’ll be rich because I have two children.” I think that is absurd and one-sided. A person is a producer for part of his life but a consumer all his life. If there are too many consumers to support, it will influence the improvement of our living standards.

***We love our country. . . . A large population is a big obstacle to our four modernizations. Being the inheritors of our country we must carry out its population policy. This is the glorious duty of every citizen and it reflects one’s patriotic spirit.

***(Before) I never thought that a large population would do great harm or that population growth was closely connected with the realization of our socialist modernizations. . . . it is very necessary for young people to have only one child. . . . I will have only one.

***When my aunt gave birth to a girl my uncle told my grandmother he could afford to have a son even if he would be fined. . . . I told granny that uncle was wrong to ‘buy’ a son. . . . If all the peasants try to have more children, our future life will be destroyed. I told her everything I had learned in class. Then my grandma criticized my uncle and made him give up the strange idea. I feel a little proud because I have done something for my country.

This kind of zeal may be revolutionary, but is not new in China. As early as 1972 Ruth Sidel observed that “planned birth is a direct contribution that every young couple can make to the building to China. Limiting one’s family becomes a gain for society, not an individual loss, and some of the zeal attached to other revolutionary values such as working to prevent famine or studying Mao’s works rubs off on the issue of birth control.” Although special programs of population education will probably now be extended to all schools, the essential message seems to have been absorbed already. This is shown in a 1988 survey of 6,000 Sichuan high school students carried out by the Cornell Population and Development Program, in collaboration with the China Population Information Center. Nine-tenths of them correctly identified the size of world population on a multiple choice question.⁵ (When we asked the same question to similar national samples in Peru, Costa Rica and Colombia, in the best of the three countries only 15 percent of the students answered correctly.) Asked about the ideal number of children for a Chinese family, 57 percent said one child or no children, 39 percent said two, and only 4 percent said three or more. While considerably smaller than the preferences of adolescents in other countries, the students were not merely parroting the “party line”, which, in 1988, essentially supported the one-child family. These general ideals make their own intentions even more dramatic. Asked how many children that they think they will have, six percent of the 6,000 students said none and 78 percent said one. In short, the ideal of a small family (no more than two) is clearly preferred, but an even smaller family — one child — is what they expect to have. The difference, I believe, is due to the students’ willingness to make sacrifices in their nation’s welfare.⁶ Thus, when given a multiple choice question concerning the most important reason for having a small family, two-thirds said it was for the welfare of the nation or community, while only one-third said it was for the welfare of either parents or children.

Conclusions

Since the revolution of 1949, the Chinese have followed a long and tortuous path toward effective population control, arriving at their present policy only after a great deal of controversy, trial, and error. The policy has shifted with the political winds and details of it are still under discussion; e.g., whether the population should be held at 1.2 billion, allowed to grow somewhat, or rolled back to 600 or 700 million; whether a two-child norm with longer birth intervals should be substituted for the one-child policy; whether education should be stressed over fines and disincentives.⁷ No one, however, is debating the need to limit population, and no one contests that it is the business of the state to control it.

What can other countries learn from all of this? First, is the importance of technology. Even the Chinese could not make a go of the program before adequate contraceptives became available. For countries with lower motivational levels than the Chinese, technology that makes contraception even easier is still needed, and international efforts to develop a wider range of male and female methods need to be reinforced. We can also see the importance of good organization that reaches down to the village and neighborhood with contraceptive supplies, accompanied by mass media and person to person communication and monitoring. Few countries have the deeply penetrating political organization that makes such a program workable, but certain aspects of

Chinese organization deserve experimental programs in less authoritarian nations; e.g., an independent Ministry of Family Planning, incentives and disincentives to groups and organizations as well as to individuals, the negotiation of annual population targets at all administrative levels, and the massive use of volunteers. Other countries could also learn much from how the Chinese use program statistics for motivating staffs and for continually relating achievements to goals. Finally, we have seen the importance of ideology and the linking of personal family behavior with patriotic goals. This is a lesson that all nations concerned about rapid population growth should study carefully.

What the developed nations might learn would be more tolerance toward systems unlike their own, especially systems that work. There are thin lines between information, education, persuasion, arm twisting, and coercion; and the placement of the lines varies from culture to culture. The Reagan administration's decision to stop all contributions to the UNFPA because of Chinese "coercive abortion"⁸ punishes all developing countries because of China's alleged sin. The price for such lofty ethics is high. The economic and environmental interdependence of the peoples of the world has never been so critical. We are all in the same fragile boat, and one out of every five passengers is Chinese. The other passengers should be grateful to their traveling companions for their unusual and successful efforts to curb population growth. China should be rewarded, not punished.

¹ The volunteer effort is another phenomenal aspect of the Chinese program, an aspect that dwarfs the efforts of private family planning organizations in the West or in other LDCs. Half the nation's 2,300 counties and 115,000 of the nation's 970,000 villages have Family Planning Associations, with nearly six million members. The volunteers do everything from agricultural extension (combined with a family planning message) to distributing pills and condoms. The plan is to have one volunteer for each half dozen couples by 1990, and a membership of 40 million. The Association has 2,500 full-time and 36,000 part-time paid workers. See *People*, 16, 1, 1989.

² The US birth rate was 30 as late as 1910, dropped to 19 during the height of the depression, peaked at 25 in 1955, and has leveled out at about 15 since the 1970s.

³ For China as a whole the abortion ratio was 48 per 100 births in 1987. In the State of New York it was 75 in 1985, and 43 for the U.S.A. (*Statistical Abstract of the United States*, 1988: 69.)

⁴ A review of 16 such studies carried out between 1983 and 1985 found the mean preferred number to range from 1.2 to 1.8 in six urban surveys, and from 1.6 to 2.5 in ten rural surveys. (Whyte and Gu, 1987: 475.)

⁵ The current generation of Sichuan high school students is within easy reach of the mass media: 81 percent of their homes have radios, and 71 percent have television sets.

⁶ A survey conducted in a traditional fishing village asked an adult sample how many children they would want if the present government policy did not exist. Nearly nine out of every ten said they would want three or more. (Freedman and Guo, 1988: 133)

⁷ The new head of the National Family Planning Commission, Peng Peiyun, said recently that "a much greater reliance . . . must be placed on 'education' in family planning activities . . . to convince the masses of the need to control population growth in macro-economic terms."

⁸ The number of abortions per 100 live births has declined from 59 in 1985 to 48 in 1987, not far from the US rate of 42. (*Outlook*, 1989: 2)

References

The following references have been quoted or have been especially helpful:

- John S. Aird. 1972. "Population Policy and Demographic Prospects in the People's Republic of China" National Institutes of Health.
- R. Freedman and Shenyang Guo. 1988. "Response of a Traditional Fishing Community to China's Family Planning Program." *International Family Planning Perspectives*, 131-36.
- Guoguang Liu, et al. 1987. *China's Economy in 2,000*. Beijing: New World Press.
- Ruth Sidel. 1973. *Women and Child Care in China: A Firsthand Report*. Penguin Books.
- H. Yuan Tien. 1983. "China: Demographic Billionaire." *Population Bulletin* Vol. 38, No. 2.
- World Fertility Survey. 1984. *Fertility in the Developing World*.
- M. K. Whyte and S. J. Gu. 1987. "Popular Responses to China's Fertility Transition." *Population and Development Review* 471-93.

Comments by Donald Mann, President, NPG, Inc.

In his most interesting and informative paper, Dr. Stycos brings out many important points with regard to China's population policies - "the most radical program of population control the world has ever seen."

I agree whole-heartedly with his concluding sentences: "The economic and environmental interdependence of the peoples of the world has never been so critical. We are all in the same fragile boat, and one out of every five passengers is Chinese. The other passengers should be grateful to their travelling companions for their unusual and successful efforts to curb population growth. China should be rewarded, not punished."

The principal features of the Chinese population program should be adopted by other less developed countries. They must move beyond reliance on mere family planning (which asserts the absolute right of couples to decide the number of children they have, regardless of the demographic consequences) to population planning, with emphasis on family limitation and small families (one child, or two at most).

Failure to move beyond family planning will almost certainly result in economic and ecological catastrophe, as the populations of this already greatly overpopulated group of countries continue to grow to perhaps three or four times their present size.

That being said, I would like to examine briefly what China has accomplished until now, and what still remains to be done, if that huge country is to be ultimately successful in achieving a population size that is both ecologically sound and economically sustainable.

China's present population size is slightly over 1.1 billion. It is increasing by about 14 million a year, and is projected to reach nearly 1.3 billion by the year 2000, and 1.523 billion by the year 2020. The latter figure would represent an increase of about 420 million in the space of 31 years. By way of comparison, the combined population of the U.S., Canada, Mexico and Central America is 390 million.

China's present total fertility rate (TFR) is about 2.4 (a completed family size of 2.4 children, on average). This in itself represents a remarkable achievement. By comparison, the TFR of the less developed countries excluding China is 4.1. Nevertheless, 2.4 is still far above the below replacement level TFR that will be necessary if China is to succeed in halting and then reversing its population growth.

Furthermore, while China's TFR dropped precipitously in the 1970's, the current rate is approximately equal to that in 1981. There have been, of course, fluctuations in the rate from year to year, but it would be fair to state that during the 1980's no progress has been made in lowering it.

What, in NPG's view, should be the goals of China's population policy at this time? We believe that China should consider as an eventual goal a population size that does not exceed 500 million, and that a TFR of about 1.5 should be the goal for the next several decades. To achieve those goals, we believe that China will need to renew and continue its emphasis on the one-child family.

In order to put those views in perspective, I should like to state briefly what NPG considers to be the essential elements of any national population policy, whether it be for China or for any other country.

1. The first is a specific goal for a stabilized population size, a

size that would be economically and ecologically sustainable for the very long term, and would permit an adequate standard of living for everyone. That goal could be expressed in terms of long-range carrying capacity, in terms of an optimum population size, or in terms of a maximum population size not to be exceeded. Since such a specific goal could never be determined with scientific precision, any given nation would have to decide, on the basis of the preponderance of present evidence, the goal to agree on. That goal, of course, should be subject to periodic review as new evidence comes to light. For example, the carrying capacity of any given nation is most likely to shrink over an extended period of time as the earth's resources, including fossil fuels, continue to be depleted.

Given the many imponderables, and our lack of understanding at present of our ecosystem, it would seem obvious that prudent planning would require a large margin of error in calculations of carrying capacity.

2. Second, what total fertility rate (TFR) would be needed in order to achieve the population size decided upon, and within what time frame?

3. Third, what population programs would be necessary in order to achieve the fertility rate decided upon?

With regard to China specifically, our recommendation above that it consider a goal of not over 500 million as an eventual stabilized population size is somewhat lower than the goal of 700 million already advocated by some Chinese environmental and population experts. To its great credit, China is the only less developed country that has considered actually reducing its population size.

In order to halt and then reverse its population growth as soon as it is humanely possible to do so, a TFR substantially below the long-term replacement rate would be necessary. Nothing short of that is sufficient to break the momentum of past population growth. Because of that momentum, the populations of most less developed countries would double even after replacement level fertility is reached, a doubling the world's environment might not withstand.

For the admittedly herculean task for China to achieve a TFR substantially below the long-term replacement rate, I see no alternative to a renewed and then continued emphasis on the one-child family. If about half of all couples had only one child, and half had two children, the resulting TFR would be around 1.5.

No one familiar with China's experience until now could underestimate the difficulties of implementing a one-child policy. Such a program must inevitably result in some personal sacrifice, and carry with it a considerable burden in social costs. We should bear in mind, however, that such a program would only need to last for several decades at most.

In addition, even the sacrifices and social costs involved with a one-child policy would be relatively minor when compared to the vast and probably permanent state of human suffering and misery that continued population growth would bring in its wake.

In trying to halt its population growth, China is faced with a gargantuan task. Great progress has already been made, but a great deal more remains to be done. It is very much in our own national interest, and in the interest of all nations, that China succeed in its efforts.

The United States, and all the other developed nations, should extend to China whatever technological and financial assistance is necessary in order to help it succeed.

Negative Population Growth, Inc.

210 The Plaza, P.O. Box 1206 • Teaneck, N.J. 07666-1206 • Telephone: (201) 837-3555

NPG, Inc., is a nonprofit organization founded in 1972. Annual dues are \$25, and are tax deductible to the extent the law allows. It publishes from time to time in the NPG Forum articles of particular interest on population, immigration, resources and the environment. The views expressed by the authors do not necessarily represent those of NPG.