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Subject: H2 Geography (Human)

Topic: Population

Question Source: Post Prelims Revision Lectures

*Suggest reasons why the concept of a population ceiling may be of limited usefulness in reality.*

The concept of a population ceiling is an upper limit to population that should not be exceeded, either to ensure maximal economic returns or a high average standard of living, or prevent environmental degradation. The concept is not well defined as it depends on the aims of those setting such a 'limit' and is highly dynamic, thus not particularly useful in reality.

A population ceiling is used usually by population policy-makers as a target for population control and is based on their estimates for the resources to be consumed and available, as well as projected infrastructural capacity. Beijing has recently set a population ceiling for the city and authorities aim to keep the population within the ceiling through controls on migration. It is only useful as a guide for the 'carry capacity' of the location and the concept makes an implicit assumption of a figure for the maximum population a place can hold.

In reality, the carrying capacity is a function of the level of technology, the lifestyle of the residents, the resource base, the pollution-absorbing capacity of the environment and many other variables that are interwoven with nature and man. As such, the population ceiling is a dynamic concept that cannot be easily quantified even within a specific period of time. As more resources or technology to exploit resources more efficiently are discovered, the effective resource base of a location increases and so the population it can hold naturally increases.

Technology can also impact on the figure negatively as it brings about pollution that brings about degradation to the environment, lowering its carrying capacity (sometimes irreversibly). Lifestyle of the population also plays a part as extravagant use of resources would necessitate a lower population ceiling relative to an identical resource base holding a population leading less extravagant lifestyles. Natural disasters also alter the environment radically and can change the population ceiling.

In addition to the fact that population ceiling is dictated by too many variables than can be accounted for, these variables share complex relationships and are not independent on each other. The rising population itself may bring about more innovations to increase the carrying capacity of a location just as limited land space have driven residential structures in Singapore into the sky. Lifestyle may change with technology - improvements in technology that makes use of resources more efficiently may encourage people to be more extravagant and this leads to more waste that offset any rise in population ceiling the technology may contribute.

*With reference to examples, assess the success of attempts at reducing birth rates in ELDCs.*

Population control in ELDCs is inevitably linked to reduction of birth rates through anti-natal policies. Demographic transition experience of the developed economies and the emerging economies have encouraged ELDCs governments to push their country into stage three of the Demographic Transition in order to create the demographic structure that facilitates rapid economic growth and development. In general, the attempts at reducing birth rates have shown varying success in different countries, depending on the implementation of the policies, the enforcement power of the authorities and the cultural features where these policies are deployed. Often, success at reducing birth rates comes at a cost, with unintended negative

consequences in long run despite being able to address the problems with overpopulation within the country in short run.

Attempts at reducing birth rates in most ELDCs of the world with direct policy tools have not been too successful in most of these countries mainly because of the weak planning authority and the cultural factors that plays an extremely strong role in these countries. India, which has long tried to influence its demography, is having difficulty reducing birth rates in most regions due to cultural mindsets as well as inherent problems with the population policy that focus only on sterilization. So far, in India, only wealthier provinces featuring high rates of literacy have managed the social advancement that pushed down fertility rates. These provinces include Kerala and Tamil Nadu, where female education and rising affluence helped to reduce birth rates. The lack of economic growth in most parts of India leaves families with the traditional mindset and more regions suffer from excess survivor syndrome after medical access improved.

Successes in reducing birth rates have been achieved in countries where government exercises greater control over the population like in Singapore and China. The China's One Child Policy is seen as the most draconian population policy ever implemented - its initial aim is to force down total fertility rate of the country to one. China's OCP dealt with all aspects of the individuals lives in order to get their population policy to work. Marriages and births require official permission, social monitoring networks are in place to look out for illegal pregnancies, employers are rewarded for making sure employees keep to one child, villages are punished for not keeping to the policy and second child suffers from lack of education and healthcare subsidies. While the policy's inflexibility led to rampant violation in the rural regions that eventually resulted in the relaxation of the initial policy stance, it was generally considered a successful policy and China has kept within its population targets even before economic growth becomes an important force in lowering fertility.

Singapore, on the other hand, was less forceful in enforcement of the population policy to 'Stop@Two' but has campaigned very aggressively for the two-child norm through public education. Government provided both incentives for sterilization and keeping to two children as well as disincentives for further expansion of the family. Housing policies that involved building small affordable flats implicitly restricts family size. The success is in part contributed by the social advancement and the economic development experienced by Singapore during the same period. This has helped result in the rapid decline in fertility that pushed Singapore from Stage two to Stage four of the DTM within a single generation.

In general, attempts with reducing birth rates in ELDCs only achieve success when the policies tools tackle the problem from multiple dimensions and with strong governments. Economic growth accompanied by female education and social advancement provides another push to reduce fertility rates in ELDCs.