

POPULATION CONTROL

Human population control is the practice of artificially altering the rate of growth of a human population. Historically, human population control has been implemented by limiting the population's birth rate, usually by government mandate, and has been undertaken as a response to factors including high or increasing levels of poverty, environmental concerns, religious reasons, and overpopulation. While population control can involve measures that improve people's lives by giving them greater control of their reproduction, some programs have exposed them to exploitation.

Population control is any methodology used to control the type, location and number of people that inhabit the earth. Public debate is strictly limited however to non-coercive means in achieving any one of these goals, especially with regards to population reduction. An important example of this would be allowing people the free choice on procreative matters. By using various methodologies both economic and administrative and educational to dissuade people from having more children than needed, a stable population base can be created. It should be noted here that the prevailing viewpoint of the world's decision makers is that Population control and environmental devastation are linked and the former contributes heavily to the latter. This view is foundational to understand the policies that are formulated to combat, what is viewed by policy makers as a runaway population explosion.

Population control may use one or more of the following practices although there are other methods as well;

- Contraception
- Abstinence
- Reducing infant mortality so that parents do not increase their family size to ensure at least some survive to adulthood
- Abortion
- Improving status of women causing departure from traditional sexual division of labour.
- Emigration

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- Immigration reduction
- Sterilization

The only socially and psychologically acceptable solution available to policy makers when discussing reducing the world's population is education.

Population education has several objectives:

- To impart knowledge on population characteristics and basic demographic concepts.
- To help learners understand the implications of population characteristics on the natural and socioeconomic environment
- To help learner develop skills to analyze population-related issues and problems
- To help learners develop skills to participate in population policy formulation
- To help learners develop responsible attitudes concerning family well being, population programs, use of natural resources as well as the improvement of the environment.

While other methods are debated they are rarely employed or even discussed with any real publicity. These include various methods of taxation and other forms of financial disincentives. These methods are important to note because barring success of the educational solution track, the financial/administrative disincentives administrative will probably become more likely as a method of reducing populations. However, this method is only really available where there is some degree of wealth and a fairly well developed governmental institutions capable of enforcing such a regimen. These are the regions that are the primary target of the so called population control agenda; remote, poor, economically underdeveloped regions of the world. Thus, if global policy makers are to have any success in their war on population (people), other methods must be employed.

Suggested Population Control Measures at Individual, National and International Levels

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Level of Control	Suggested Measures	Remarks
<p>Individual Level</p>	<ul style="list-style-type: none"> • Embracing family planning measures that include: <ul style="list-style-type: none"> ➤ Appropriate birth spacing, with emphasis on fewer children, 2-3 ➤ Tubal ligation for females ➤ Ovariohysterectomy for females ➤ Vasectomy for men ➤ Use of contraceptive pills ➤ Use of condoms in coitus ➤ Withdrawal technique during coitus 	<ul style="list-style-type: none"> • Measures must be accompanied by corresponding improved child and maternal health care services to reduce infant and child mortalities which is a major incentive for high birth rate in less developed countries • Some measures e.g. vasectomy in men although very effective are punitive and permanent, with negative connotation on male ego, hence shunned
	<ul style="list-style-type: none"> • Empowering people, especially women through education. • Abandon retrogressive cultural practices e.g. disregard for the girl child, in favor of boys 	<ul style="list-style-type: none"> • Educated women tend to focus on their careers and have little time for bearing many children. Infant and child mortality rates are lower among educated households hence less motivation for large number

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	<ul style="list-style-type: none"> • Delayed marriages • Sensitization on small family sizes through peer and role model influence 	<p>of children to enhance survival rates of children</p> <ul style="list-style-type: none"> • The belief that a household must have a boy child for inheritance and lineage maintenance has led many families to have several children and they seek chance for the boy child. • Career minded individuals often marry late; with less motivation to sire many children • Peer pressure strongly influences behavioral changes in society, both positively and negatively.
<p>National Level</p>	<ul style="list-style-type: none"> • National government can roll out a country wide family planning program as a policy • National governments may also introduce incentives for small family sizes and penalties for big family sizes. For instance, tax relief measures based 	<ul style="list-style-type: none"> • A major campaign in the late early 1990s in Kenya has helped to reduce birth rates from an all time high of 4% to just 3.6%. National campaigns and sensitization through maternal healthcare programs focus on the benefits of smaller healthier families. • In Germany where the population growth is less

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	<p>on family sizes could help discourage or encourage the desire to bear children.</p> <ul style="list-style-type: none"> • National Governments can also rollout poverty eradication programs to create opportunities for income, better living conditions and access to healthcare and education services • National government should also develop comprehensive resettlement scheme programs • National governments should strictly enforce laws and policies regulating immigration <ul style="list-style-type: none"> • Create employment opportunities through concrete national development plans that expand the growth of the economy, create jobs and enhance incomes • Improve healthcare services to reduce infant, child and maternal mortalities through comprehensive national health care programs as part of the Millennium Development Goals. • Reclaim unproductive land for settlement of squatters to enhance 	<p>than 1%, parents are induced to bear children through child maintenance allowances. China for instance has a policy of 1 child per household. Violating the policy attracts penalties inform of higher tax burden</p> <ul style="list-style-type: none"> • Poverty is the single most important cause of high population growth rates. Population demographics indicate that poorer households, especially in developing countries have higher birth rates • Settlement schemes with improved access to services discourages rural-urban migration that results in slums • Uncontrolled entry of aliens increases a countries population and put pressure on basic services. For instance, Kenya has registered entry of over 2 million Somalis in just a
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	<p>productivity and improve living standards</p>	<p>decade due lax immigration laws enforcement.</p> <ul style="list-style-type: none"> • The Kenya Household Demographic and Health Survey reports indicate that high income households have lower birth rates. • High infant, child and maternal mortality rates, especially among poor communities is a justification for higher birth rates as a survival strategy
<p>International Level</p>	<ul style="list-style-type: none"> • Lobbying for funding from developed nations to support population management programs. These include <ul style="list-style-type: none"> ○ Family planning programs ○ Poverty eradication programs • Sharing of technological advances in birth control measures • Research on diseases to reduce death rates • International collaboration to enforce immigrations laws • Anti-dumping laws and regulations that ban dumping of fake or ineffective 	<ul style="list-style-type: none"> • Increasing population growth in developing countries has assumed global significance hence the need rational for developed countries to support population management through agencies such as the United Population Fund Agency (UNFPA). • Technological information sharing and research can be done through technological

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	fertility control drugs in developing countries	transfer mechanisms incorporated in foreign aid <ul style="list-style-type: none">• This can be done through joint policing of borders and international waters• Many sub-standard and or fake contraceptives have been dumped in developing countries with disastrous consequences on the health of users.
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Reflection questions

Discuss the successes and failures of family planning in the world

Environmental policy instruments (EPI)

Environmental policy instruments (EPI) usually refer to official actions taken to curb and remove the negative environmental impacts caused by society. The methods, laws, administration and decisions relating to these actions are collectively termed environmental policy. A EPI is divided into economic, information and legal measures. Indicators of sustainable development frequently measure the status of development or pressures directed at it. Indicators of environmental policy instruments reflect society's reaction, and the steps taken to make sustainable development possible.

A number of different typologies are used to classify EPI. One of the most commonly used typologies divides a EPI into the following three categories:

- (i) Regulatory instruments that mandate specific behaviour.
- (ii) Market-based instruments that act as incentives for particular activities.
- (iii) Information-based instruments that seek to change behaviour through the provision of information.

We will discuss each of these, next. But, let us first note that governments may establish formal cleaner production strategies or programmes to act as a framework for the coordinated implementation of subsequent and more specific policy instruments. Cleaner production strategies may take one or a combination of the following shapes:

- **Product bans:** The imposition of a ban or defined phase-out schedule for a particular product or substance is an

authoritarian means of promoting cleaner production. This may be implemented through application of the product choice or substitution principle.

- **Extended producer responsibility (EPR):** EPR aims at making environmental improvements throughout the life cycle of a product by making the manufacturer responsible for various aspects of the product's life cycle. In particular, this could include the take-back recycling and final disposal of the product.
- **Cleaner production audits:** As part of their permitting requirements, it is mandatory for production industries to carry out cleaner production audits of their plants and to implement findings as long as they do not harm the environment.
- **Mandatory EMS and reporting:** In terms of integrated permit conditions, it is mandatory for production industries to implement a structured environmental management system and make public information on their environmental performance.
- **Financial and technical incentives:** Governments may stimulate cleaner production measures by providing grants, loans and favourable tax regimes, and/or by supplying targeted technical assistance to relevant industrial enterprises.

Regulatory instruments

Since the inception of environmental policy, the predominant strategy for pollution control has generally been through the use of regulatory instruments. Usually, a public authority sets standards, and then inspects, monitors and enforces compliance to these standards, punishing transgressions with formal legal sanction. These regulations may, for example, specify an environmental goal such as the reduction of carbon dioxide emissions by a specified date. They may also mandate the use of a particular

technology or process. Such an approach gives the regulator the maximum authority to control where and how resources will be allocated to achieve environmental objectives. Also, this provides the regulator with a reasonable degree of predictability as to how much the pollution levels will be reduced.

Specified and negotiated compliance

The specified compliance approach imposes the precise and specific demands on the regulated communities without any scope for bargaining and exceptions. However, this approach has some significant drawbacks in that the regulated community may tend to become alienated from the authorities and united in its opposition to the rules and regulations.

The negotiated compliance approach, by contrast, adopts a more co-operative approach between the regulators and the regulated in setting and enforcing standards. This shared responsibility between the government and industry enhances the likelihood of a more open exchange of information between the parties and allows greater flexibility regarding the means of meeting the standard. Moreover, a number of countries have started to develop regulations where attainment of certain targets (e.g., recycling targets) is required while concrete means of achieving such targets are left in the hands of industries (non-prescriptive regulations). This, in turn, may increase the economic efficiency of the regulation and may be conducive to the adoption of innovative, preventative approaches.

Indeed, with the growing appreciation of the limits of conventional policy instruments, many governments are encouraging the adoption of self-regulatory and co-regulatory policy instruments for promoting cleaner production.

Market-based instruments

Market-based instruments generally seek to address the market failure of environmental externalities either by incorporating the external cost of a firm's polluting activities into the firm's private cost (for example, through taxation), or by creating property rights and facilitating the establishment of a proxy market (for example, by using tradable pollution permits).

Before introducing any new economic instruments, governments should identify and evaluate any economic incentives that may already be in operation, either explicitly or implicitly. These include, for example, the use of subsidies to make local industries more competitive. Many of these policies lead to artificially low prices for resources, such as energy and water, and as a result of which these resources may be overused, creating both pollution and shortages. Government assessments of such policies are, therefore, needed before other economic instruments are applied.

Taxes, fees and charges may be used to promote cleaner production practices by raising the costs of unwanted outputs or by providing incentives to promote more efficient use of natural resources. In some instances, it may be appropriate to use the revenues generated from these instruments to support cleaner production activities and thereby stimulating preventative approaches. A significant constraint against the more widespread adoption of market-based instruments, however, is that it is not always politically feasible to set taxes at a sufficiently high level to achieve desired environmental goals. Governments often face resistance, if taxation related to environment is taken merely as a means of increasing its revenues.

Governments may be able to avoid some obstacles by earmarking the corrected charges or shifting tax sources. In any case, the successful implementation of such instruments requires a system of monitoring, revenue collection and enforcement as well as measures to combat possible corruption.

Financial subsidies, (e.g., low-interest loans, direct grants or preferential tax treatment) can be targeted to specific industries to stimulate technological development. Governments must, however, carefully examine how subsidies work to ensure that they are not misused resulting in environmentally counter-productive behaviour.

Information-based strategies

In addition to creating an appropriate regulatory and financial framework for cleaner production, government may further stimulate the adoption of cleaner production practices through the use of informational measures. These may be used to provide the right incentive (e.g., through the public disclosure of a firm's environmental performance) as well as to build capacity within industry (e.g., through the publication and dissemination of relevant case studies).

A few examples of information-based strategies are given below:

- Promoting the adoption of targeted, high profile demonstration projects, to demonstrate the techniques and cost-saving opportunities associated with cleaner production.
- Encouraging educational institutions to incorporate preventative environmental management within their curricula, particularly within engineering and business courses.
- Requiring public disclosure of information on environmental performance by, for example, establishing a pollutant release

and transfer register, stimulating greater voluntary corporate reporting and requiring the provision of information on specific materials.

- Initiating and/or supporting measures that address consumption such as eco-labelling schemes and environmental product declarations.
- Promoting the adoption of effective training initiatives.
- Issuing high profile awards for enterprises that have effectively implemented cleaner production.

Note that in some instances, a EPI is characterised by more than one of the above categories. Furthermore, it is important to note that different policy instruments are sometimes best used in conjunction with others.

Let us now discuss the evolution of environmental policies and programmes with particular reference to India.



LEARNING ACTIVITY 2.1

List any two policy instruments of cleaner production.

Note:

- Write your answer in the space given below.
- Check your answer with the one given at the end of this Unit.
