

Chapter 1 : What are the Effects of Population Growth? (with pictures)

Impact of Environment on Population: Polluted environment also affects adversely the health of people. Table shows the types of pollution, their poisonous elements and effects on health. Policy Measures: Agricultural and industrial development along with urbanisation and spread of infrastructure combined with population growth has led to environmental degradation.

Effects of Population Growth on our Environment Article shared by: Effects of Population Growth on our Environment! One of the factors responsible for environment degradation is population growth or population density. In particular, population density plays the most important role in shaping the socio-economic environment. Its effects are felt on the natural environment also. Due to his destructive activities, man has dumped more and more waste in environment. As the man-made waste is not transformed, it causes degradation and the capacity of environment to absorb more waste is reduced. Further, waste leads to air and water pollution. Due to his destructive activities, man has extracted more and more minerals from the earth. Animals have been hunted and plants have disappeared. There has been loss of biodiversity. These have led to ecological imbalance. Man has established new housing colonies. National highways and hydropower projects have been built and forests have been wiped out. These destructive activities have increased and led to ecological imbalance. Rapid growth of population has led to urbanization which has adversely affected environment. Due to population pressure, natural resources in the cities are depleted at a fast rate due to population pressure. Moreover, population does not have proper sanitation facilities and pure drinking water. As a result, the health of the people is adversely affected. No doubt, urbanization reduces pressure on the rural environment, but it brings with it environmental damages through industrial growth, emissions and wastes. Underdeveloped countries are following the policy of heavy industrialisation which is causing environmental degradation. The establishment of such industries as fertilizers, iron and steel, chemicals and refineries have led to land, air and water pollution. Intensive farming and excessive use of fertilizers and pesticides have led to over-exploitation of land and water resources. These have led to land degradation in the form of soil erosion, water logging and salination. Environmental degradation is also due to transport development in the different parts of the world. The automobiles release huge quantities of poisonous gases such as carbon monoxide, nitrogen oxides and hydrocarbons. The development of ports and harbours have led to oil spills from ships adversely affecting fisheries, coral reefs, mangroves and landscapes. Climatic changes are irregular due to green house gases. The thin skin of air that surrounds the planet is being affected by human activities as never before. Urban people are still being exposed to unaccepted levels of toxic pollutants. Further, forests are still being degraded by acid deposition generated by faraway industries, and greenhouse gases continue to accumulate in the atmosphere. Environmental degradation not only harms health but also reduces economic productivity. Dirty water, inadequate sanitation, air pollution and land degradation cause serious diseases on an enormous scale in developing countries like India. These, in turn, reduce the productivity levels in the country. To take specific instances, water pollution has led to declining fisheries in rivers, ponds and canals in both urban and rural areas. Water shortages have reduced economic activity in towns, and cities and villages. Soil and hazardous wastes have polluted ground water resources which cannot be used for agricultural and industrial production. Soil degradation leading to soil erosion, drought, etc. Deforestation has led to soil erosion and consequent loss of sustainable logging potential. Loss of bio-diversity has resulted in the loss of genetic resources. Last but not the least, atmospheric changes have given rise to disruption of marine food chain, damages to coastal infrastructure due to sea-rise and regional changes in agriculture productivity due to hurricanes in seas. Thus, environmental degradation undermines economic productivity of a nation. Presently, environmental pollution is caused by old technology which releases gases and pollutants causing chemical and industrial pressure on environment. Impact of Environment on Population: Polluted environment also affects adversely the health of people. Agricultural and industrial development along with urbanisation and spread of infrastructure combined with population growth has led to environmental degradation. Environmental degradation harms human health, reduces economic productivity and leads to the loss of amenities. The

damaging effects of economic development on environmental degradation can be reduced by a judicious choice of economic and environmental policies and environmental investments. We discuss some policy measures as under:

Control of Population Growth: The rate of population growth should be curtailed through effective family planning measures. This is essential because the proportion of total population in the labour force will increase further in the years to come as a result of changes in the age structure of the population. The shifting of labour force from the rural to the secondary sector requires increase in agricultural productivity. Increased agricultural productivity helps in meeting the demand for raw materials of the expanding manufacturing sector. With increased productivity, less workers are required to produce raw materials for industry and food-grains for the population. It also increases agricultural surplus thereby raising saving and investment for economic development. So concerted efforts are needed to increase agricultural productivity through technological advancement. This will ultimately lead to commercialisation of agriculture and production for exports, thereby earning foreign exchange for further development. The aim of population control is not only to bring about a decline in fertility rates but also to improve the quality of life of the people. These are possible through rapid economic development. It is not an illusion to believe that a reduction in population growth will automatically raise living standards. In fact, an effective family planning policy should be integrated with measures to accelerate economic development. As the Ninth Five Year Plan observes: This has been attributed to the increase in productivity due to development and utilisation of innovative technologies by the young educated population who formed the majority of the growing population. These will help the country to achieve economic transition from low economic growth low per capita income to high income growth and to high per capita income. This will, in turn, raise the quality of life of the people and the population will be controlled automatically.

Improving Health and Nutrition: The food and nutrition security for the weaker sections in a developing country should not be considered as issues in the Nutrition Science but should be considered as part of right to work, right to health, right to education, right to information and right of the poor. In such a country, there are agricultural, health, population, nutrition, children and education policies. On the other hand, there are fiscal and budget revisions, exports, imports, taxation, price wage, employment policies and policy related to subsidies. Ultimately, all these policies affect life of the poor, their food and nutrition security and health. As a leading nutritionist C. Guarantee of good nutrition and absence of hunger are not the same thing. Our first effort should be towards removing hunger of the poor, but our long-term goal should be to provide maximum nutrition to our people which is useful in bringing out their hereditary talents. Nutrition security is more important than food security. Nutrition security includes making our food base wider and varietal. Especially the people of the weaker sections of the society who do not take adequate advantage of health, family welfare and nutrition services, should be made aware of these facilities so that their health and nutrition status can be improved. Such development projects should be started which provide greater employment opportunities to the poor. The government should expand health and family planning services and education so as to reach the poor that will help reduce population growth. Further, making investments in providing civic amenities like the supply of drinking water, sanitation facilities, alternate habitats in place of slums, etc. To reduce environmental degradation at no financial cost to the government, subsidies for resource use by the private and public sectors should be removed. Subsidies on the use of electricity, fertilisers, pesticides, diesel, petrol, gas, irrigation water, etc. Subsidies to capital intensive and highly polluting private and public industries lead to environmental degradation. Removing or reducing subsidies will bring both economic and environmental benefits to the country.

Clarifying and Extending Property Rights: Lack of property rights over excessive use of resources leads to degradation of environment. Clarifying and assigning ownership titles and tenurial rights to private owners will solve environmental problems. Places where the use of common lands, forests, irrigation systems, fisheries, etc. Besides regulator measures, there is urgent need for adopting market based approaches for the protection of environment. They aim at pointing to consumers and industries about the cost of using natural resources on environment. These costs are reflected in the prices paid for goods and services so that industries and ultimately the consumers are guided by them to reduce air and water pollution. Regulatory polices also help in reducing environmental degradation. Regulators have to make decisions regarding prices, quantity and technology. In making

decisions, they have to choose between the quantity or the price of pollution or resource use of technologies. The regulating authority has also to decide whether policies should target the environmental problem directly or indirectly. It lays down technical standards and regulations and charges on air, water and land pollutants. Regulators should be impartial in applying environmental standards to both public and private sector polluters or resources users. Like regulatory policies, economic incentives relate to price, quantity and technology. Incentives are usually in the form of variable fees to resource users for the quantity of pollutants in air, water and land use.

Chapter 2 : Human overpopulation - Wikipedia

In the end, population growth plays a key role in environmental sustainability. It can lead to the deforestation, water pollution, and air pollution. These have a negative effect on the environment and also impact human daily lives.

From our humble beginnings in small pockets of Africa, we have evolved over millennia to colonise almost every corner of our planet. In the world population is more than 7. The United Nations estimates that the world population will reach 9. For most of our existence the human population has grown very slowly, kept in check by disease, climate fluctuations and other social factors. It took until for us to reach 1 billion people. Since then, continuing improvements in nutrition, medicine and technology have seen our population increase rapidly. Human population has seen exponential growth over the past few hundred years. Our World in Data. The impact of so many humans on the environment takes two major forms: This is an understandable fear, and a quick look at the circumstantial evidence certainly shows that as our population has increased, the health of our environment has decreased. The impact of so many people on the planet has resulted in some scientists coining a new term to describe our timeâ€”the Anthropocene epoch. Unlike previous geological epochs, where various geological and climate processes defined the time periods, the proposed Anthropocene period is named for the dominant influence humans and their activities are having on the environment. In essence, humans are a new global geophysical force. We humans have spread across every continent and created huge changes to landscapes, ecosystems, atmosphereâ€”everything. However, while population size is part of the problem, the issue is bigger and more complex than just counting bodies. There are many factors at play. Essentially, it is what is happening within those populationsâ€”their distribution density, migration patterns and urbanisation , their composition age, sex and income levels and, most importantly, their consumption patternsâ€”that are of equal, if not more importance, than just numbers. A formula for environmental degradation? The IPAT equation, first devised in the s, is a way of determining environmental degradation based on a multiple of factors. At its simplest, it describes how human impact on the environment I is a result of a multiplicative contribution of population P , affluence A and technology T . As well as bringing the link between population and environment to a wider audience, the IPAT equation encouraged people to see that environmental problems are caused by multiple factors that when combined produced a compounding effect. More significantly, it showed that the assumption of a simple multiplicative relationship among the main factors generally does not holdâ€”doubling the population, for example, does not necessarily lead to a doubling of environmental impact. The reverse is also trueâ€”a reduction of the technology factor by 50 per cent would not necessarily lead to a reduction in environmental impact by the same margin. The IPAT equation is not perfect, but it does help to demonstrate that population is not the only or necessarily the most important factor relating to environmental damage. Focusing solely on population number obscures the multifaceted relationship between us humans and our environment, and makes it easier for us to lay the blame at the feet of others, such as those in developing countries, rather than looking at how our own behaviour may be negatively affecting the planet. But how many people is too many? How many of us can Earth realistically support? Carrying capacity is usually limited by components of the environment e . Debate about the actual human carrying capacity of Earth dates back hundreds of years. The range of estimates is enormous, fluctuating from million people to more than one trillion. Scientists disagree not only on the final number, but more importantly about the best and most accurate way of determining that numberâ€”hence the huge variability. PDF How can this be? Whether we have million people or one trillion, we still have only one planet, which has a finite level of resources. The answer comes back to resource consumption. People around the world consume resources differently and unevenly. An average middle-class American consumes 3. So if everyone on Earth lived like a middle class American, then the planet might have a carrying capacity of around 2 billion. However, if people only consumed what they actually needed, then the Earth could potentially support a much higher figure. But we need to consider not just quantity but also qualityâ€”Earth might be able to theoretically support over one trillion people, but what would their quality of life be like? Would they be scraping by on the bare minimum of allocated resources, or would they have the opportunity to lead an enjoyable and full life? More

importantly, could these trillion people cooperate on the scale required, or might some groups seek to use a disproportionate fraction of resources? If so, might other groups challenge that inequality, including through the use of violence? These are questions that are yet to be answered. Population distribution The ways in which populations are spread across Earth has an effect on the environment. Developing countries tend to have higher birth rates due to poverty and lower access to family planning and education, while developed countries have lower birth rates. These faster-growing populations can add pressure to local environments. Globally, in almost every country, humans are also becoming more urbanised. By 2050, that figure was 54 per cent, with a projected rise to 66 per cent by 2070. While many enthusiasts for centralisation and urbanisation argue this allows for resources to be used more efficiently, in developing countries this mass movement of people heading towards the cities in search of employment and opportunity often outstrips the pace of development, leading to slums, poor if any environmental regulation, and higher levels of centralised pollution. Even in developed nations, more people are moving to the cities than ever before. The pressure placed on growing cities and their resources such as water, energy and food due to continuing growth includes pollution from additional cars, heaters and other modern luxuries, which can cause a range of localised environmental problems. Humans have always moved around the world. However, government policies, conflict or environmental crises can enhance these migrations, often causing short or long-term environmental damage. For example, since conditions in the Middle East have seen population transfer also known as unplanned migration result in several million refugees fleeing countries including Syria, Iraq and Afghanistan. The sudden development of often huge refugee camps can affect water supplies, cause land damage such as felling of trees for fuel or pollute environments lack of sewerage systems. Unplanned migration is not only difficult for refugees. Having so many people living so closely together without adequate infrastructure causes environmental damage too.

Population composition The composition of a population can also affect the surrounding environment. At present, the global population has both the largest proportion of young people under 24 and the largest percentage of elderly people in history. As young people are more likely to migrate, this leads to intensified urban environmental concerns, as listed above. Life expectancy has increased by approximately 20 years since 1950. Ageing populations are another element to the multi-faceted implications of demographic population change, and pose challenges of their own. This has huge implications on the workforce, as well as government spending on pensions and health care. Increasing lifespans are great for individuals and families. But with more generations living simultaneously, it puts our resources under pressure. Population income is also an important consideration. The uneven distribution of income results in pressure on the environment from both the lowest and highest income levels. They may also be forced to deplete scarce natural resources, such as forests or animal populations, to feed their families. On the other end of the spectrum, those with the highest incomes consume disproportionately large levels of resources through the cars they drive, the homes they live in and the lifestyle choices they make. On a country-wide level, economic development and environmental damage are also linked. The least developed nations tend to have lower levels of industrial activity, resulting in lower levels of environmental damage. The most developed countries have found ways of improving technology and energy efficiency to reduce their environmental impact while retaining high levels of production. It is the countries in between—those that are developing and experiencing intense resource consumption which may be driven by demand from developed countries—that are often the location of the most environmental damage.

Population consumption While poverty and environmental degradation are closely interrelated, it is the unsustainable patterns of consumption and production, primarily in developed nations, that are of even greater concern. For many, particularly in industrialised countries, the consumption of goods and resources is just a part of our lives and culture, promoted not only by advertisers but also by governments wanting to continually grow their economy. Culturally, it is considered a normal part of life to shop, buy and consume, to continually strive to own a bigger home or a faster car, all frequently promoted as signs of success. It may be fine to participate in consumer culture and to value material possessions, but in excess it is harming both the planet and our emotional wellbeing. More clothes, more gadgets, bigger cars, bigger houses—consuming goods and resources has big effects on our planet. The environmental impact of all this consumption is huge. The mass production of goods, many of them unnecessary for a comfortable life,

is using large amounts of energy, creating excess pollution, and generating huge amounts of waste. To complicate matters, environmental impacts of high levels of consumption are not confined to the local area or even country. This enables them to enjoy the products without having to deal with the immediate impacts of the factories or pollution that went in to creating them. On a global scale, not all humans are equally responsible for environmental harm. Consumption patterns and resource use are very high in some parts of the world, while in others—often in countries with far more people—they are low, and the basic needs of whole populations are not being met. The reverse was also true—for example the population of North America grew only 4 per cent between 1970 and 2000, while its carbon emissions grew by 14 per cent. Individuals living in developed countries have, in general, a much bigger ecological footprint.

GLOSSARY ecological footprint The impact of a person or community on the environment, expressed as the amount of land required to sustain their use of natural resources. The ecological footprint is a standardised measure of how much productive land and water is needed to produce the resources that are consumed, and to absorb the wastes produced by a person or group of people. Today humanity uses the equivalent of 1.5 Earths. This means it now takes the Earth one year and six months to regenerate what we use in a year. While the average global footprint is 1.5, the footprint of the United States is 4.7. To put this in perspective, if the rest of world lived like we do in Australia, we would need the equivalent of 3 Earths. Similarly, an American has an ecological footprint almost 9 times larger than an Indian—so while the population of India far exceeds that of the United States, in terms of environmental damage, it is the American consumption of resources that is causing the higher level of damage to the planet. What is the solution? How do we solve the delicate problem of population growth and environmental limitations? Joel Cohen, a mathematician and author characterised potential solutions in the following way: Advances in food production technologies such as agriculture, water purification and genetic engineering may help to feed the masses, while moving away from fossil fuels to renewable power sources such as wind and solar will go some way to reducing climate change. Funding and research should be a high priority in these areas, but we must accept that technology can only do so much, and is only part of the solution. Investing in clean energy is one way to reduce our environmental strain on the planet. Birth rates naturally decline when populations are given access to sexual and reproductive healthcare, education for boys and girls beyond the primary level is encouraged and made available, and women are empowered to participate in social and political life.

Chapter 3 : Overpopulation: Causes, Effects and Solutions - Conserve Energy Future

The IPAT equation, first devised in the s, is a way of determining environmental degradation based on a multiple of factors. At its simplest, it describes how human impact on the environment (I) is a result of a multiplicative contribution of population (P), affluence (A) and technology (T).

Population stabilization and resource conservation will lead to the challenges of sustainability. As the century begins, natural resources are under increasing pressure, threatening public health and development. Water shortages, soil exhaustion, loss of forests, air and water pollution, and degradation of coastlines afflict many areas. Most developed economies currently consume resources much faster than they can regenerate. Most developing countries with rapid population growth face the urgent need to improve living standards. As we humans exploit nature to meet present needs, are we destroying resources needed for the future? Environment getting worse About 3 million die from pollution each year. In the past decade in every environmental sector, conditions have either failed to improve, or they are worsening: Unclean water, along with poor sanitation, kills over 12 million people each year, most in developing countries. Air pollution kills nearly 3 million more. Heavy metals and other contaminants also cause widespread health problems. Will there be enough food to go around? In 64 of developing countries studied by the UN Food and Agriculture Organization, the population has been growing faster than food supplies. Population pressures have degraded some 2 billion hectares of arable land – an area the size of Canada and the U. The supply of freshwater is finite, but demand is soaring as population grows and use per capita rises. By , when world population is projected to be 8 billion, 48 countries containing 3 billion people will face shortages. Half of all coastal ecosystems are pressured by high population densities and urban development. Ocean fisheries are being overexploited, and fish catches are down. Yet human activities are pushing many thousands of plant and animal species into extinction. Two of every three species is estimated to be in decline. If the global temperature rises as projected, sea levels would rise by several meters, causing widespread flooding. Global warming also could cause droughts and disrupt agriculture. Toward a livable future How people preserve or abuse the environment could largely determine whether living standards improve or deteriorate. Growing human numbers, urban expansion, and resource exploitation do not bode well for the future. Without practicing sustainable development, humanity faces a deteriorating environment and may even invite ecological disaster. Many steps toward sustainability can be taken today. While population growth has slowed, the absolute number of people continues to increase – by about 1 billion every 13 years. Slowing population growth would help improve living standards and would buy time to protect natural resources. In the long run, to sustain higher living standards, world population size must stabilize. Less growth will provide time to solve sustainability problems. Population and sustainable development Environmentalists and economists increasingly agree that efforts to protect the environment and to achieve better living standards can be closely linked and are mutually reinforcing. Slowing the increase in population, especially in the face of rising per capita demand for natural resources, can take pressure off the environment and buy time to improve living standards on a sustainable basis. This dynamic process has been identified as one of the key reasons that the economies of many Asian countries grew rapidly between and In recent years fertility has been falling in many developing countries and, as a result, annual world population growth has fallen to about 1. The UN estimated recently that population is growing by about 78 million per year, down from about 90 million estimated early in the s. World population surpassed 6 billion in and is projected to rise to over 8 billion by In many countries, births far outnumber deaths, creating overpopulation. Globally, fertility has fallen by half since the s, to about three children per woman. In these countries the population continues to increase rapidly. Another million people live in 44 countries where the average woman has five children or more. Almost all population growth is in the developing world. The shares of other regions are projected to remain about the same as today. As population and demand for natural resources continue to grow, environmental limits will become increasingly apparent. Family planning is effective in stabilizing growth. Family planning programs play a key role. When family planning information and services are widely available and accessible, couples are better able to achieve their fertility desires. Practicing

sustainable development requires a combination of wise public investment, effective natural resource management, cleaner agricultural and industrial technologies, less pollution, and slower population growth. Just when it stabilizes and thus the level at which it stabilizes will have a powerful effect on living standards and the global environment. As population size continues to reach levels never before experienced, and per capita consumption rises, the environment hangs in the balance. New York was the only city with a population of more than 10 million in ; By it is estimated there will be 21 cities in this category. Also, most urban population growth will likely occur in developing countries, which are not equipped to deal with the need for more transportation, housing, water, and sewers. Such magnitude of urban population increase is unprecedented in human history.

Chapter 4 : 10 Effects of Overpopulation | List of Problems and Impact on Environment

Human impact on the environment or anthropogenic impact on the environment includes changes to biophysical environments and ecosystems, biodiversity, and natural resources caused directly or indirectly by humans, including global warming, environmental degradation (such as ocean acidification), mass extinction and biodiversity loss, ecological crisis, and ecological collapse.

Ross Blanc Population growth has had a negative impact on the quality of the environment. As more land is used for agriculture or living purposes, the environment changes drastically. As the population of humans grows in certain cities or rural areas, more resources must be used to maintain the well-being of the population. With the increasing pressure on available resources, many habitats are being destroyed. The atmosphere is also negatively impacted by population growth. As the population increases, there is an increase in the amount of pressure put on the agricultural sector. Farming is a major human activity that has transformed the land masses and it has become a direct route in which humans have affected the environment. In many countries, the need for food is so great that natural habitats are destroyed and transform into agricultural lands. This leads to extreme deforestation in many countries. For example, most of the forest that originally covered Europe in AD are almost gone by the s Preston. Humans have also cut down trees to access timber so they can build infrastructure and other materials. Additionally, another problem that arises with the destruction of these forests is that they are the ones who use carbon dioxide for photosynthesis and release oxygen as a byproduct. Many people have said that the forests around the world act as the lungs of the world. Without them, the carbon dioxide levels will rise and this will lead to other environmental complications that could end up being irreversible. Furthermore, as the population continues to grow, more technologies and practices will be implemented to increase agricultural yields. As humanity continue to use these waste products, it will increase dead zones in pools, lakes, and rivers. With the increase of dead zones, fishes and other marine organisms will start to die more frequently. This will lead to cascading events that will negatively impact the marine environments and the quality of water. Population Growth can also negatively the atmosphere. With more people being born and living the cities, the level of carbon dioxide CO₂ emissions increase also. This will result in more heat that gets trap within the atmosphere, and this is a factor that contributes to global warming. Air pollution is also destroying the ozone layer. Without the ozone layer, harmful radiation from the sun can penetrate to Earth. This could possibly lead to skin cancer for humans. Air pollution can also impact human health. It can cause many respiratory problems. The rain in Gurgaon, India has brought down dust pollution that was in the atmosphere near to land levels. This can cause discomfort in breathing or even lung disease Arora. In China, both adults and children are being killed because of air pollution. Although its economy is very successful, many workers and civilians are dying. Air pollution in China has made cancer the leading cause of death Kahn, Hardley. In the end, population growth plays a key role in environmental sustainability. It can lead to the deforestation, water pollution, and air pollution. These have a negative effect on the environment and also impact human daily lives. Governments and agencies must now mitigate how and where they will use resources. They also have to think about how new technologies and practices can affect the environment. Bibliography Arora , Shilpy. Pollution in safe zone after rain. Kahn, Joseph, and Jim Hardley.

Chapter 5 : Effects of Population Growth on our Environment

Essay on Human Impact on the Environment Words | 7 Pages. Human Impact on the Environment About three hundred years ago there was a definite spurt in the population of the human race.

Human overpopulation is among the most pressing environmental issues, silently aggravating the forces behind global warming, environmental pollution, habitat loss, the sixth mass extinction, intensive farming practices and the consumption of finite natural resources, such as fresh water, arable land and fossil fuels, at speeds faster than their rate of regeneration. However, ecological issues are just the beginning. According to the World Resources Institute, "Freshwater ecosystems – the diverse communities found in lakes, rivers, and wetlands – may be the most endangered of all. Freshwater ecosystems have lost a greater proportion of their species and habitat than ecosystems on land or in the oceans; in addition, they are probably in greater danger of further losses from dams, pollution, overfishing, and other threats. Aldous Huxley predicted in that democracy is threatened due to overpopulation and could give rise to totalitarian style governments and it turns out he was right. Rules and restrictions can be good ideas, but only because they are necessary in order to accommodate the growing populations that are encouraging such policies. Without these policies, the global ecological crisis, and the societal and economic issues that ensue, would be worse than they are today. Examples of such restrictions would be putting limits on water consumption, on driving and on what people can do on their land. Some are good ideas while others may be too invasive, but all are exacerbated by overpopulation. Click to enlarge Increased Global Warming and Climate Change According to the Center for Biological Diversity, "The largest single threat to the ecology and biodiversity of the planet in the decades to come will be global climate disruption due to the buildup of human-generated greenhouse gases in the atmosphere. People around the world are beginning to address the problem by reducing their carbon footprint through less consumption and better technology. But unsustainable human population growth can overwhelm those efforts, leading us to conclude that we not only need smaller footprints, but fewer feet. Every professional scientific society in every field related to the field of climate endorses it. The consensus is unequivocal: The effects of climate change are profound and far-reaching. Center for Biological Diversity. Center for Biological Diversity Click for source Depletion of Natural Resources As the human population continues to explode, finite natural resources, such as fossil fuels, fresh water, arable land, coral reefs and frontier forests, continue to plummet, which is placing competitive stress on the basic life sustaining resources and leading to a diminished quality of life. Each person on Earth now requires a third more land to supply his or her needs than the planet can supply. Furthermore, intensive farming kills beneficial insects and plants, degrades and depletes the very soil it depends on, creates polluted runoff and clogged water systems, increases susceptibility to flooding, causes the genetic erosion of crops and livestock species around the world, decreases biodiversity, and destroys natural habitats. Elevated Crime Rate As human overpopulation drives resources and basic necessities, such as food and water, to become scarcer, there will be increased competitiveness for these resources which leads to elevated crime rates due to drug cartels and theft by people in order to survive. As Aisha Tariq of the Pakistan Times states, "It has been observed that the countries which have balanced population, crime rate is very low in such regions. When people are not provided with the basic necessities, it elevates crime rate. These situations are especially dire for populations in Uganda, Nigeria, and Bangladesh, which will double and, in some cases, even triple over the next 40 years. A child suffering extreme malnutrition in India, According to the World Health Organization, "Every three seconds a young child dies - in most cases from an infectious disease. In some countries, one in five children die before their fifth birthday. Every day 3 people die from malaria - three out of four of them children. Great Apes - the Road Ahead. The effects listed on this page are just some of the main problems associated with or exacerbated by human overpopulation. A comprehensive list of the effects of human overpopulation are beyond compiling and perhaps, comprehension. They extend far and wide and across social, political, economic and environmental divides. This means the amount of these resources per person is declining, in spite of modern technology. Other massive social and environmental problems Solving these problems will be much less

difficult when we stop increasing the number of people affected by them. Two billion people live in poverty, more than the population of the entire planet less than years ago. Today there are more people suffering in misery and starvation in the world than ever before in history.

Chapter 6 : What Are Environmental Problems Due to Population Growth? | Sciencing

The effects of population growth are varied and vast. While population growth, of any species, may be beneficial to a certain extent, there may come a time when the number in the population exceeds the natural resources available to sustain it.

While the causes are complex, one significant contributor to the problem is population growth. Understanding the relationship between population growth and environmental issues may be the first step toward identifying real solutions. Since populations can grow exponentially, resource depletion can occur rapidly, leading to specific environmental concerns such as global warming, deforestation and decreasing biodiversity. Populations in developed countries trend toward using substantially more resources, while populations in developing countries feel the impacts of environmental problems more quickly.

How Population Growth Works The concept of population growth is tricky because populations can grow exponentially – similar to the way a bank or credit card company compounds interest. If you plot this equation, you see a curve arching upward over time as the population increases exponentially, assuming no change in the rate. This concept might be easier to visualize with actual figures. From the beginning of time on Earth to the start of the 20th century, the population of the planet grew from zero to 1. Then, thanks to many factors, the population increased to 6. The result of this depletion is deforestation and loss of biodiversity as humans strip the Earth of resources to accommodate rising population numbers. Population growth also results in increased greenhouse gases, mostly from CO₂ emissions. For visualization, during that same 20th century that saw fourfold population growth, CO₂ emissions increased twelvefold. As greenhouse gases increase, so do climate patterns, ultimately resulting in the long-term pattern called climate change.

The Biggest Impacts The use of resources and the impact of environmental issues are not equal around the globe. People in developed countries require substantially more resources to maintain their lifestyles compared with people in developing countries. People in developing countries tend to feel the impacts of environmental problems more acutely, especially if they live in coastal areas directly affected by sea level rise and the extreme weather events that accompany climate change. The most vulnerable populations also experience decreased access to clean water, increased exposure to air pollution and diseases – which may result from decreased biodiversity – and may feel the impact more immediately as local resources including plants and animals deplete. While the interconnected problems of population growth and environmental issues seem overwhelming, it is important to remember that humans can make changes that positively impact the planet. One good starting point is understanding and applying the concept of sustainability, which is the opposite of resource depletion. Sustainability describes a model of resource usage in which the current generation uses only the resources the Earth provides indefinitely like solar or wind power instead of burning fossil fuels to ensure that future generations inherit resources.

Chapter 7 : Human impact on the environment - Wikipedia

The impact that this population explosion has had on the environment has been just as striking, as seen by changes in greenhouse gas emissions, rates of soil erosion, and the extinction of species.

An Environmental Force to Be Reckoned With Human beings have become an increasingly powerful environmental force over the last 10, years. With the advent of agriculture 8, years ago, we began to change the land. But the growth in world population has masked what may be an even more important human-environmental interaction: Among developing countries, Latin American countries have the highest proportion of their population living in urban areas. But East and South Asia are likely to have the fastest growth rates in the next 30 years. Almost all of future world population growth will be in towns and cities. UN, World Urbanization Prospects: The Revision Past projections of urbanization have also often overestimated future rates of growth. Therefore, it is important to be careful in using urbanization data to draw definitive conclusions. That was small wonder: Until a century ago, urban areas were some of the unhealthiest places for people to live. The increased density of populations in urban areas led to the rapid spread of infectious diseases. Consequently, death rates in urban areas historically were higher than in rural areas. The only way urban areas maintained their existence until recently was by the continual in-migration of rural people. The most striking examples of the urbanization of the world are the megacities of 10 million or more people. In only four megacities existed; in there were And by the UN estimates that there will be Urban advantages include greater opportunities to receive education, health care, and services such as entertainment. The urban poor have less opportunity for education than the urban nonpoor, but still they have more chance than rural populations. Within urban areas, women who migrated from rural areas have more children than those born in urban areas. So the difference between the fertility of urban migrants and rural women probably exaggerates the impact of urban migration on fertility. In sub-Saharan Africa, the urban fertility rates are about 1. It is also likely to concentrate some environmental effects geographically. Environmental Effects of Urbanization Urban populations interact with their environment. Urban people change their environment through their consumption of food, energy, water, and land. And in turn, the polluted urban environment affects the health and quality of life of the urban population. People who live in urban areas have very different consumption patterns than residents in rural areas. In China during the s, the urban populations consumed more than twice as much pork as the rural populations who were raising the pigs. But even a decade later, urban populations had 60 percent more pork in their diets than rural populations. The increasing consumption of meat is a sign of growing affluence in Beijing; in India where many urban residents are vegetarians, greater prosperity is seen in higher consumption of milk. Urban populations not only consume more food, but they also consume more durable goods. In the early s, Chinese households in urban areas were two times more likely to have a TV, eight times more likely to have a washing machine, and 25 times more likely to have a refrigerator than rural households. Energy consumption for electricity, transportation, cooking, and heating is much higher in urban areas than in rural villages. For example, urban populations have many more cars than rural populations per capita. Almost all of the cars in the world in the s were in the United States. Today we have a car for every two people in the United States. If that became the norm, in there would be 5. Economies, therefore, often become more efficient as they develop because of advances in technology and changes in consumption behavior. And the increased consumption of energy is likely to have deleterious environmental effects. Urban consumption of energy helps create heat islands that can change local weather patterns and weather downwind from the heat islands. The heat island phenomenon is created because cities radiate heat back into the atmosphere at a rate 15 percent to 30 percent less than rural areas. The combination of the increased energy consumption and difference in albedo radiation means that cities are warmer than rural areas 0. Cloudiness and fog occur with greater frequency. Precipitation is 5 percent to 10 percent higher in cities; thunderstorms and hailstorms are much more frequent, but snow days in cities are less common. Urbanization also affects the broader regional environments. Regions downwind from large industrial complexes also see increases in the amount of precipitation, air pollution, and the number of days with

thunderstorms. Urban areas generally generate more rain, but they reduce the infiltration of water and lower the water tables. This means that runoff occurs more rapidly with greater peak flows. Flood volumes increase, as do floods and water pollution downstream. Many of the effects of urban areas on the environment are not necessarily linear. Bigger urban areas do not always create more environmental problems. And small urban areas can cause large problems. Much of what determines the extent of the environmental impacts is how the urban populations behave – their consumption and living patterns – not just how large they are.

Health Effects of Environmental Degradation The urban environment is an important factor in determining the quality of life in urban areas and the impact of the urban area on the broader environment. Some urban environmental problems include inadequate water and sanitation, lack of rubbish disposal, and industrial pollution. The health implications of these environmental problems include respiratory infections and other infectious and parasitic diseases. Capital costs for building improved environmental infrastructure – for example, investments in a cleaner public transportation system such as a subway – and for building more hospitals and clinics are higher in cities, where wages exceed those paid in rural areas. And urban land prices are much higher because of the competition for space. But not all urban areas have the same kinds of environmental conditions or health problems. Some research suggests that indicators of health problems, such as rates of infant mortality, are higher in cities that are growing rapidly than in those where growth is slower. Los Angeles has dramatically reduced air pollution. Many towns that grew up near rivers have succeeded in cleaning up the waters they befouled with industrial development. But cities at the beginning of their development generally have less wealth to devote to the mitigation of urban environmental impacts. And if the lack of resources is accompanied by inefficient government, a growing city may need many years for mitigation. Strong urban governance is critical to making progress. But it is often the resource in shortest supply. The lack of good geographic information systems means that many public servants are operating with cataracts. The lack of good statistics means that many urban indicators that would inform careful environmental decisionmaking are missing. Some of these public-private partnerships have advocated tackling the environmental threats to human health first. Much of the research that needs to be done on the environmental impacts of urban areas has not been done because of a lack of data and funding. Most of the data that exist are at a national level. But national research is too coarse for the environmental improvement of urban areas. Therefore, data and research at the local level need to be developed to provide the local governments with the information they need to make decisions. Certainly the members of the next generation, the majority of whom will be living in urban areas, will judge us by whether we were asking the right questions today about their urban environments. They will want to know whether we funded the right research to address those questions. And they will also want to know whether we used the research findings wisely.

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Chapter 8 : Population controls 'will not solve environment issues' - BBC News

Overpopulation affects the environment by putting pressure on resources such as water, food and energy. Pollution, soil degradation, deforestation and loss of biodiversity are further effects of overpopulation on the environment.

The reason countries buy oil from other countries, even though that country already has oil, is for trade. For example, country A can make ten cars in a year or a hundred computers. Country B can make 15 cars in a year or two hundred computers. Since country B is so much better at everything, why would they choose to trade with country A? If country B chooses to make cars, for example, it chooses to not make computers. To make the trade relationship work, the countries choose to make the product in which they have a comparative advantage. Country A can make one car for every ten computers. Country B can make one car for every 40 computers. In other words, it only "costs" Country A ten computers, compared to So even though Country A makes fewer cars, their opportunity cost is lower, so they have a comparative advantage in making cars. Similarly, when it comes to making computers, Country B is giving up less cars so it has a comparative advantage in making computers. Country A specializes in cars and Country B specializes in computers, so the trade relationship works and both countries profit. I learned this in international business class. Hope this helps your understanding. We have chosen that the population of Australia should stay the same. Zambia has more natural resources than her people population but is still poor. Mismanagement of natural resources, in our case is the biggest problem leading to poverty than our population. I think at the world level population growth is a challenge in addressing the global poverty. The population of the world now exceeds the natural resources available to sustain it. Unemployment in the world is a result of population growth. The US is stealing the resources of other countries. If each country can use its resources, they will never have a problem. The African and some asian countries are in this terrible situation because US and israel and some others want it to be so. To offset overpopulation, people can have more fun that does not involve sexual acts. Jmcdonald Post 15 How much room do you think it takes to grow animals for food cows,chickens,pigs etc.. What about grains, vegetables, nuts, and fruit? Would food grow as well in desert areas, mountainous areas, or jungle areas? Would there be any space left for wild animals or natural plant life? Would there be any space left for shopping malls, movie theaters, concert halls, factories, office buildings or parking lots? It makes no sense to pump oil out of one hole in the ground just to dump it in another hole in the ground fertilizers on ag. Stop pump the pumping water to to grow vegetables that are then shipped around the world. Start sending aid to your own countries inhabitants and get them straight before you start flinging your resources around the globe. Food aid to failing systems should stop. If you have six children find a way to feed them or stop having them. Over population is never good. Think of the earth as a human being for a minute and imagine it is being overwhelmed by a major life threatening disease, and you have our situation. We are killing our host and there is not much that any one person can due about it. But oil --we have passed peak oil while growing our populations exponentially based on readily available cheap oil. Folks, that time period has passed. If the middle east explodes into some kind of anti west revolution then we are going to be in the dark quickly. Loss of oil when it happens, not if will cause a bottle neck event for humans. Population counts will drop precipitously in a post-industrial culture, as it will take generations to educate the majority of the people how to care for themselves and how to produce their own food. This is knowledge that has been lost in my world. I already have some examples: Matthew island, Rapa Nui. In the long run, it is. No matter how you put it, earths resources are limited. Any suggestions or advice would be nice. Maybe a maximum of three or even more if the couple is financially able to take care of their children. But the problem in India is poor families have seven, eight or nine children, and rich and middle class usually not more than three. Poverty is mainly because of unemployment issues. All these issues are correlated. The best way to tackle this situation is make people understand the effects of population. Have only one child in the family and have safe sex. I need help now, please. What are the effects of population growth? And explain each, please. This time, I need answers! Essentially it is inevitable that life itself will be conceded to the exponentially growing population increments. However maybe, just maybe, nuclear bombs may kill off many of the population, then the few that survive can

be educated on how to maintain low population levels. But what can we do? In the mean time, all we can do is enjoy what life has to offer.

Chapter 9 : Population and environment: a global challenge - Curious

Overpopulation is an undesirable condition where the number of existing human population exceeds the carrying capacity of Earth. Overpopulation is caused by number of factors. Reduced mortality rate, better medical facilities, depletion of precious resources are few of the causes which results in overpopulation.

Overpopulation is an undesirable condition where the number of existing human population exceeds the carrying capacity of Earth. Overpopulation is caused by number of factors. Reduced mortality rate, better medical facilities, depletion of precious resources are few of the causes which results in overpopulation. It is possible for a sparsely populated area to become densely populated if it is not able to sustain life. Growing advances in technology with each coming year has affected humanity in many ways. One of these has been the ability to save lives and create better medical treatment for all. A direct result of this has been increased lifespan and the growth of the population. In the past fifty or so years, the growth of population has boomed and has turned into overpopulation. In the history of our species, the birth and death rate have always been able to balance each and maintain a population growth rate that is sustainable. Between the time of the plague and the 21st century, there was been hundreds and thousands of wars, natural calamities and man-made hazards. However, none of these have made a dent on the population. Developing nations face the problem of overpopulation more than developed countries, but it affects most of the Earth as of now. When we are talking about overpopulation, we should first understand the causes of it. Causes of Overpopulation

Decline in the Death Rate: At the root of overpopulation is the difference between the overall birth rate and death rate in populations. If the number of children born each year equals the number of adults that die, then the population will stabilize. Talking about overpopulation shows that while there are many factors that can increase the death rate for short periods of time, the ones that increase the birth rate do so over a long period of time. The discovery of agriculture by our ancestors was one factor that provided them with the ability to sustain their nutrition without hunting. This created the first imbalance between the two rates. Following this came the industrial revolution. Technological advancement was perhaps the biggest reason why the balance has been permanently disturbed. Science was able to produce better means of producing food, which allowed families to feed more mouths. Medical science made many discoveries thanks to which they were able to defeat a whole range of diseases. Illnesses that had claimed thousands of lives till now were cured because of the invention of vaccines. Combining the increase in food supply with fewer means of mortality tipped the balance and became the starting point of overpopulation.

More Hands to Overcome Poverty: However, when talking about overpopulation we should understand that there is a psychological component as well. For thousands of years, a very small part of the population had enough money to live in comfort. The rest faced poverty and would give birth to large families to make up for the high infant mortality rate. Families that have been through poverty, natural disasters or are simply in need of more hands to work are a major factor for overpopulation. As compared to earlier times, most of these extra children survive and consume resources that are not sufficient in nature.

Technological Advancement in Fertility Treatment: With latest technological advancement and more discoveries in medical science, it has become possible for couple who are unable to conceive to undergo fertility treatment methods and have their own babies. Today there are effective medicines which can increases the chance of conception and lead to rise in birth rate. Moreover, due to modern techniques pregnancies today are far more safer. Many people prefer to move to developed countries like US, UK, Canada and Australia where best facilities are available in terms of medical, education, security and employment. The end result is that those people settle over there and those places become overcrowded. Difference between the number of people who are leaving the country and the number of people who enter narrows down which leads to more demand for food, clothes, energy and homes. This gives rise to shortage of resources. Though the overall population remains the same, it just affects the density of population making that place simply overcrowded.

Lack of Family Planning: Most developing nations have large number of people who are illiterate, live below the poverty line and have little or no knowledge about family planning. Getting their children married at an early age increase the chances of producing more kids. Those people are

unable to understand the harmful effects of overpopulation and lack of quality education prompts them to avoid family planning measures. **Effects of Overpopulation Depletion of Natural Resources:** The effects of overpopulation are quite severe. The first of these is the depletion of resources. The Earth can only produce a limited amount of water and food, which is falling short of the current needs. Most of the environmental damage being seen in the last fifty odd years is because of the growing number of people on the planet. They are cutting down forests, hunting wildlife in a reckless manner, causing pollution and creating a host of problems. Those engaged in talking about overpopulation have noticed that acts of violence and aggression outside of a war zone have increased tremendously while competing for resources. With the overuse of coal, oil and natural gas, it has started producing some serious effects on our environment. Rise in the number of vehicles and industries have badly affected the quality of air. Rise in amount of CO₂ emissions leads to global warming. Melting of polar ice caps, changing climate patterns, rise in sea level are few of the consequences that we might have to face due to environment pollution. Overpopulation in developing countries puts a major strain on the resources it should be utilizing for development. Conflicts over water are becoming a source of tension between countries, which could result in wars. It causes more diseases to spread and makes them harder to control. Starvation is a huge issue facing the world and the mortality rate for children is being fuelled by it. Poverty is the biggest hallmark we see when talking about overpopulation. All of this will only become worse if solutions are not sought out for the factors affecting our population. We can no longer prevent it, but there are ways to control it. When a country becomes overpopulated, it gives rise to unemployment as there are fewer jobs to support a large number of people. Rise in unemployment gives rise to crime as people will steal various items to feed their family and provide them basic amenities of life. **High Cost of Living:** As the difference between demand and supply continues to expand due to overpopulation, it raises the prices of various commodities including food, shelter and healthcare. This means that people have to pay more to survive and feed their families. **Solutions to Overpopulation Better Education:** One of the first measures is to implement policies reflecting social change. Educating the masses helps them understand the need to have one or two children at the most. Families that are facing a hard life and choose to have four or five children should be discouraged. Family planning and efficient birth control can help in women making their own reproductive choices. Open dialogue on abortion and voluntary sterilization should be seen when talking about overpopulation. **Making People Aware of Family Planning:** As the population of this world is growing at a rapid pace, raising awareness among people regarding family planning and letting them know about the serious after-effects of overpopulation can help curb population growth. One of the best ways is to let them know about various safe sex techniques and contraceptive methods available to avoid any unwanted pregnancy. **Tax Benefits or Concessions:** Government of various countries might have to come with various policies related to tax exemptions to curb overpopulation. One of them might be to waive off certain part of income tax or lowering rates of income tax for those married couples who have single or two children. As humans are more inclined towards money, this may produce some positive results. **Knowledge of Sex Education:** Imparting sex education to young kids at elementary level should be a must. Most parents feel shy in discussing such things with their kids which result in their children going out and look out for such information on internet or discuss it with their peers. Mostly, the information is incomplete which results in sexually active teenagers unaware of contraceptives and embarrassed to seek information about same. It is therefore important for parents and teachers to shed their old inhibitions and make their kids or students aware of solid sex education.