

POPULATION GROWTH: BIOETHICS AND HUMAN ECOLOGY

INTRODUCTORY REMARK

This paper draws its inspiration from the Book of Revelation 7: 3 which very sagaciously counsels us, 'Do not damage the earth or the seas or the trees...'. Today, more than ever, this advice has to be heeded as economic growth has lost its human and humane moorings.

The population growth trajectory of any region / country has inherent linkages with both the bioethical as well as human ecological concerns of humankind. The quest of this paper is to expose Asian demographic trends and to probe into the above mentioned linkages. The paper aims at comprehending the nature of these linkages and investigating for any reciprocity in these relationships. By understanding the factors that foster or hinder these relationships, the paper then attempts to offer possible solutions and recommendations. As this Conference celebrates 50 yrs of *Mater et Magistra* (Mother and Teacher) on Christianity and social progress, the paper intertwines the relevant social teachings of the Church into its deliberations.

1.0. ASIAN DEMOGRAPHIC TRENDS

As developed countries undergo ageing and little growth in population size, developing countries in Asia remain young and growing. For example, India's population has reached 1.21 billion, making it home to 17% of the world's people¹. By 2050, India is expected to be the largest contributor to world's population growth. Currently, India averages around 2.6 children per family, much above the 2.1 rate that is required to stabilize the population². Further, the number of people living in slums in India has more than doubled in the past two decades and is now more than the entire population of Britain³. The proliferation of slums in India is due to both the demographic surge as well as the Government's failure to house the urban poor and to generate sufficient basic infrastructure like electricity, cooking-gas and piped water supply. Nearly half of Mumbai's population (about 6.5 million people) lives in appalling slums and slum-like conditions⁴. In India, Scheduled Castes and Scheduled Tribes form the bulk of the very poor, as they are deprived literacy, shelter, assets (eg., land) and the basic human rights.

Indonesia, with a population of 237 million and a growth rate of 1.49%, has currently the fourth-largest population in the world, but in terms of the quality of life for all its citizens it ranks 108th out of 188 countries⁵. Indonesia's high fertility rate is and high poverty rates are viciously correlated, thereby hampering economic development as the government's public expenditure is skewed towards social infrastructure spending on food, health-care, education, and the provision of other services needed for living a human existence.

With 180 million people, Pakistan is the sixth most populous country in the world and fourth in Asia. The Pew Research Center estimates that by 2030 Pakistan's population is expected to grow to 256 million, with an annual rate of growth of 2.77%, one of the highest in the world. Again, according to the Population Reference Bureau 2010, by 2050, it will be globally the fourth most populous country. The 2006-07 Pakistan Demographic and Health Survey reveals that Pakistani women continue to have an average of four children⁶. In Bangladesh, according to government statistics, if the current population growth rate continues, the country's population will increase to over 17 crores by 2020⁷. Further, in the early 1950's, population growth in the South Asian region grew at 1.8 percent annually but in the late

1970's reached a peak of 2.4 percent annually. Since then the annual population growth rate has declined to its current level of 1.5 percent.

Population aging which is another important phenomenon puts pressure on a society's ability to support its elderly citizens. A commonly used indicator of this pressure is the elderly support ratio. This ratio serves as a rough indicator of the number of potential providers of support (working people) per potential elderly dependent. The Population Research Bureau points out that this ratio is declining more rapidly in developed countries and by 2050, no country will have a ratio above 20⁸. This is an unfortunate demographic trend and a cause for concern, as the future will bring more coffins than cradles and more elderly persons than children⁹. However, a number of Asian countries are experiencing a demographic transition from high to low as fertility and mortality rates. This would ultimately cause their age structure to change and in the final analysis they would be left with a higher proportion of older people. However, the middle stage of this demographic transition presents an economic opportunity of high productivity and relatively low health expenditure¹⁰ as the proportion of younger people will have declined without the proportion of older people increasing significantly.

According to the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP's) Statistical Yearbook for Asia and the Pacific 2008, fertility has fallen below replacement level in 16 countries, including China, Singapore, Sri Lanka and Thailand. However, it states that fertility rates (above 3.0 children per woman) are found in Afghanistan, Bangladesh, Cambodia, India, the Lao People's Democratic Republic, Nepal, Pakistan, the Philippines, Tajikistan and Timor-Leste¹¹.

It is regrettable that in developing Asian countries, Governments are propagating population control as a necessary means to achieve a certain level of economic prosperity. The Pakistan government recruits even religious leaders to sell population control to the masses. The President of Bangla Desh, Mr. Zillur Rahman, on World Population Day 2010, stepped up an "ongoing social movement" to control the population. In India, the Bihar government will soon formulate a new population control policy in collaboration with the United Nations Population Fund (UNPF)¹². Shivpuri district in the state of Madhya Pradesh, India, an overpopulated area renowned for its machismo culture, has started to offer fast-tracked gun licences for those who agree to be sterilized.¹³

Until 1991, the Government of the Republic of the Union of Myanmar considered the country underpopulated and it has not adopted a family planning programme.¹⁴ However, since then there has been a growing use of contraceptive methods. The 2007 Fertility and Reproductive Health Survey (FRHS), released in October 2009 and conducted by the Department of Population and UN Population Fund (UNFPA), found increased use of contraception among married women, although figures were still relatively low.¹⁵

1.2. The Response of Mater et Magistra

Three insights have to be highlighted here:

First, way back in 1961, in *Mater et Magistra* Pope John XXIII already foresaw that the future decrease in the mortality rates of infants and the increasing population levels would make people ask the question as to whether curbing or avoiding the birth of children would be a solution to the so called crisis of overpopulation that would result in deterioration of the standard of living of poorer countries. Pope John XXIII affirmed that "the real solution of the problem is not to be found in expedients which offend against the divinely established moral order and which attack human life at its very source, but in a renewed scientific and technical effort on man's part to deepen and extend his dominion over Nature. The progress of science and technology that has already been achieved opens up almost limitless horizons in this matter".¹⁶

Second, according to Pope John XXIII, the most difficult problem of the modern world is the inequality between rich and poor nations. Pope John XXIII, was convinced that the problems faced by the poorer countries are caused by a deficient economic and social organization, which does not offer living conditions proportionate to the increase in population and by the lack of effective solidarity among such peoples.¹⁷ He said that “solidarity which binds all men together as members of a common family makes it impossible for wealthy nations to look with indifference upon the hunger, misery and poverty of other nations whose citizens are unable to enjoy even elementary human rights”.¹⁸ He was convinced that it will not be possible to preserve a lasting peace so long as glaring economic and social imbalances persist. He said that countries with more than enough food must share it with those that have too little — “to destroy or squander goods that other people need in order to live is to offend against justice and humanity”.

Third, Pope John XXIII emphatically stated that main solution to the question of population increase and economic development is that due consideration must be given to those values which concern human dignity and the immense worth of each individual human life and that there can be no solution if it does violence to the essential dignity of the human person.¹⁹

2.0. BIOETHICS AND DEMOGRAPHIC CONCERNS OF TODAY IN ASIA

Every country in the world has to face its healthcare and nutritional challenges. In some places not only is the cost of food high but there is also poor access to healthy food. In other places, there is an over abundance of food but its nutritional quality is compromised. In several countries, including Indonesia and India, the total number of undernourished people has actually increased since 1990-92.²⁰ The mortality rate indicators like life expectancy at birth or infant mortality rate are important markers of a country’s health status.

The demographic circumstances prevailing in South Asia today reflect a shift from high rates of mortality and fertility to low ones. In South Asia²¹, a region of 1.64 billion people (24 percent of the world’s population), the infant mortality rate today varies from 152 in Afghanistan to 15 in Sri Lanka.²² Further, the UNFPA and the UNICEF point out that after Sierra Leone, Afghanistan has the highest maternal mortality rate in the world with at least 1600 deaths per lakh live births, according to. Lack of access to obstetric and health services, early marriages and multiple short-term pregnancies are the main reasons why about 60 mothers die every day in Afghanistan²³. According to the UN²⁴, about 1 in 10 children in Myanmar die before they reach five and this the fourth worst child mortality in the world. Overall, the average infant mortality rate in South Asia has fallen from 168 per 1000 in the early 1950s to 53 per 1000 today. Life expectancy, which averaged 39 years in the early 1950s, has increased to nearly 65 years today in Sri Lanka it is 74.5, while in Afghanistan this figure stood at 44.5.

Another important demographic indicator in South Asia is an increase in the ratio of working-age to non-working-age population. This ratio stood at 1.43 in 1950 and fell to 1.22 by 1965 as infant and child mortality rates fell. Since then, it has risen steadily to 1.74, as the baby boom generation has moved into working ages and as fertility rates continue to fall. The ratio is expected to reach a peak of 2.2 working-age individuals for every non-working-age person in 2040, before beginning to decline²⁵.

2.1. New Reproductive Technologies (NRT’s) and the right of society to intervene in the transmission of human life

The three aspects to the New Reproductive Technologies (NRT’s) used primarily for infertility treatment, namely, artificial reproduction and genetic or pre-natal diagnosis and also for the prevention of conception or birth, are making greater inroads in Asia and they need to be critically assessed. These reproductive technologies raise the important question of whether it is proper for science to interfere with natural reproduction. Science without conscience can only lead to the ruin of the human person²⁶. Human procreation requires on the part of the spouses responsible collaboration with the fruitful love of God.²⁷ According to the European Society for Human Reproduction and Embryology, more than three million babies have been born using artificial reproductive technologies (ART’s) worldwide in the last 30 years²⁸.

As many as 40000 test-tube babies are born annually in India²⁹. Infertility clinics in Mumbai, India receive four to five telephone calls daily from young women who want to donate their eggs and know that they receive Rs 20000 (approximately 450 USDs)³⁰. Healthy women are forced to menstruate at any age through the infusion of hazardous hormones and steroids. The techno doctors that perform various procedures on women disregard their severe pain, heavy bleeding, growth on face, nose and cheeks and uterine contractions. The new reproductive technologies have unfortunately led to many negative consequences including the exploitation of women and the elimination of the female fetuses as well as the so called defective fetuses.

2.2. The Ethical Problem with Surrogacy or Collaborative Reproduction in Asia

One can outsource just about any work to India these days, including making babies. Through advertisements in newspapers, poor women are asked to lend their wombs for money. Rich clients are sought from the internet websites. Same-sex couples, single parents and even busy women who just don't have time to give birth are welcomed by doctors.³¹ Reproductive tourism in India is now a half-a-billion-dollar-a-year industry, with surrogacy services offered in over 1000 clinics across the country. The primary appeal of India is that it is cheap, hardly regulated and relatively safe. Surrogacy can cost up to \$100000 in the United States, while many Indian clinics charge \$22000 or less. While there are no accredited statistics, doctors say around 500 to 600 surrogate babies could be born throughout the world each year, with about 200 coming from India, where the average surrogacy success rate is 37.9 %. Currently, experts in this field estimate the industry to be worth 445 million USDs³². In Southeast Asia, unclear laws regulating assisted reproductive services make Thailand, Malaysia and Philippines the go-to places for surrogacy services. All forms of surrogacy are banned in Singapore³³. Transnational surrogacy arrangements in India have created very difficult situations of stateless children where babies with multiple parents are not provided nationality by the country of birth or by the country of the child's intended parent(s)³⁴.

Marital sex should be both physically and emotionally unifying and open to the transmission of new life. Human love should be both love-enhancing (unitive) and life-giving (procreative). This connection between unity and procreation is inseparable and a requirement in each and every marriage act³⁵. Artificial contraception delivered unity without openness to procreation. Namely, if it is wrong to separate procreation from unity with the use of artificial contraception, it is wrong to separate procreation from unity and have offspring apart from the sexual act of the married couple. In short, no sex, no babies. Homologous forms of assisted reproduction breaks/separates procreation from the sexual union of man and woman³⁶. Also all heterologous forms of reproduction including surrogacy do the same thing. In God's plan, impregnation is very much linked to giving birth to a child. To allow impregnation as an act which is separated or delinked from marriage, for someone to be an impregnator non-conjugally, is not the proper way to achieve motherhood³⁷.

Surrogacy is to be opposed as it offends the dignity of the child, the uniqueness of the mother-child relationship, and the sanctity of marriage³⁸. It also treats women and children as commodities. Conception, gestation, birth and nurturing are part of a continuum of life relationships. Child and parents grow into relationship together, a relationship meant to last a lifetime. The relationship is generic, gestational and nurturing, and strengthening the child-parent bond. Surrogacy fractures that continuum of relationship, introducing at least two, if not three, "mothers" and more than one set of parents. To gestate an unrelated embryo is a violation of the unitive good of marriage.

Many European countries such as France, Norway and the Netherlands outlaw commercial surrogacy. According to Indian guidelines, a child born to foreigners seeking surrogacy or sperm or egg donation in India is not an Indian citizen. Volden could have adopted a child instead of creating tailor-made babies who are not related to her biologically³⁹. However, a Division Bench in Mumbai comprising Chief

Justice K.S. Radhakrishnan and Justice Anant Dave held that the children born of a surrogate mother on Indian soil are Indians by birth, irrespective of the nationality of the father⁴⁰.

2.3. Sex Selective Abortion and Direct Abortion in Asia

Asian countries are undergoing a demographic transition of low death and low birth rates in their populations. Countries in South Asia are promoting small family norms. India has adopted the two-child norm⁴¹ and China has imposed a one child per family norm. The Nobel Laureate Prof. Amartya Kumar Sen, in his article, 'Missing women' has shown that during the last century, 100 million women have been missing in South Asia due to 'discrimination leading to death' experienced by them from womb to tomb in their life cycles⁴². In 2001, India had 158 million infants and children, of which 82 million were males and 76 million females. There has been a deficit of 6 million female infants and girls in India. The United Nations says an estimated 2,000 unborn girls are illegally aborted every day in India⁴³. According to a report published online by The Lancet Medical Journal, a team of scientists who analyzed female fertility figures from a national survey of 6 million people in India, found that there were about half a million fewer girls born in the country in 1997 than expected⁴⁴. This means that 10 million female fetuses were selectively aborted in a period of 20 years. The findings support estimates by the Indian Medical Association, which has said that five million female fetuses are killed in India each year⁴⁵.

This is a result of the widespread use of sex determination and sex pre-selection tests throughout the country (including in Kerala), along with high rates of female infanticide in the former BIMARU (that is, sick) States⁴⁶, rural Tamilnadu and Gujarat⁴⁷. The availability of ultrasound allows parents to discover the gender of their child before birth and has been widespread in India for most of the past two decades⁴⁸. To prevent the abuse of advanced scientific techniques for selective elimination of female fetuses through sex-determination, in 1994, the Government of India passed the Pre-natal Diagnostic Techniques (Regulation and Prevention of Misuse) PNDT Act.

According to a recent United Nations Population Fund (UNFPA) State of the World Population Report, the practices of prenatal sex selection, abortion and female infanticide combined with neglect, have resulted in at least 60 million "missing" girls in Asia, creating gender imbalances and other serious problems that experts say will have far reaching consequences for years to come. Twenty-five million men in China currently cannot find brides because there is a shortage of women according to the Population Research Institute in Washington, D.C.

Gender imbalance is becoming a worldwide phenomenon. According to provisional Census report of India 2011, the 2011 Global Sex Ratio is 984 females to 1000 males.⁴⁹ India's is lower, at 940 females to 1000 males, and China, Indonesia, Nigeria and even the USA have all shown a decline in the sex ratio in 2011. India, Pakistan (943), Bangladesh (978) and Afghanistan (931) all show a preference for sons. All these countries have banned pre-natal gender determining tests⁵⁰. Nepal tops South Asia's gender inequality ratio at 1 : 6, a notch above India at 1: 5 and way above Sri Lanka at 2 : 3 (Gautam and others: 2005). In South Asia the sex ratios are adverse for women (95 women per 100 men), and the lowest sex ratio is found in India with 93 women per 100 men⁵¹. Women are socially conditioned to accept that unless they produce one or more male children they have no social worth. They can be harassed and deserted by their husbands if they fail to do so⁵². A survey by *India Today*⁵³ showed that among the Kallar community in Tamil Nadu, India, mothers who gave birth to baby girls may be forced to kill their infants by feeding them with a milk paste or juice made from poisonous oleander berries. Other girls are suffocated with a wet towel or bag of sand or exposed to the strong current of pedestal fans to make them asphyxiate. Still others are starved to death⁵⁴. Further, girls who are not killed, when they grow up, are harassed with regards to dowry i.e. the bride's parents have to give money and gifts to the groom's family at the time of marriage in order to 'compensate' the husband for shouldering burden of his wife⁵⁵. Many girls and women are trafficked for prostitution and suffer infection of HIV/AIDS. Every year five to seven thousand Nepali women are trafficked across the border (Ibid: 221 & 22). Women are also trafficked from North Korea, Burma and Vietnam and sold into sexual slavery or to the highest bidder.

Despite governments' efforts to prevent female infanticide, the girl child in South Asia still faces bias, even before birth. This was admitted by Nepal's Prime Minister Madhav Kumar Nepal on 23 June 2010 while inaugurating the third meeting of South Asian ministers on child violence at Kathmandu. India, Pakistan, Bhutan, Sri Lanka, Maldives, Afghanistan, Sri Lanka and Nepal, has seen some of the highest incidences of girl infanticide in the world. Pakistan, Bangladesh and Afghanistan are also among the countries where sons are preferred to daughters. To stop a gender imbalanced society we will have to convince doctors and clients, state and civil society that "Daughters are not for slaughter". In 2008, the Indian government announced it will pay poor families nearly 3000 USDs to raise their girl children. Under the new scheme, poor families in seven Indian states will be paid cash at the birth of a daughter and again at different stages throughout her childhood up to the age of 18 years⁵⁶.

Direct abortion is rampant in South Asia. For thousands of Pakistani women, unsafe abortions are the only way of family planning. Researchers estimate that 890000 abortions were performed in Pakistan in 2002 and the figure remains high even today⁵⁷. 14 of every 100 pregnant women in Pakistan undergo an abortion. Most of them are married with at least three children, and their average age is about 30 years. A national research report states that of the 55 % women who abort, do so because "they had enough children" and couldn't afford to have another child. Only 25 percent felt it was "too soon" to have a child⁵⁸. In India, in 2007 Kerala introduced a family planning bill wherein families having a third child would have to pay Rs. 10000 (Euros 180) as penalty, and would also be denied free education and treatment in government hospitals. The Catholic Church in Kerala not only opposed the bill by also extended support to women who want to undergo reversal of tubectomy or recanalisation⁵⁹. In China, the CHRD (China Human Rights Defenders), released a chilling report in December 2010 which stated that Chinese women have no power of choice over their body and are subjected to constant humiliation and suffering because of the one-child law launched 30 years ago. At least three times a year they must report for a mandatory pelvic examination (to verify that they are not pregnant). Married women are urged to insert IUDs or be sterilized when they have reached their birth quotas. Women who are pregnant out-of-quota (which includes premarital pregnancies) are often forced to abort the fetuses, even in advanced pregnancies⁶⁰.

2.4. The response of *Mater et Magistra*

The Church is not opposed to technological progress. At the same time the Church seeks to guide what the technological development has to serve, viz. the human person. Pope John XXIII had declared this in his Encyclical Letter *Mater et Magistra*⁶¹. The Second Vatican Council also stated that technological progress is not to be seen as the conquest of the human person, but as the sign of the greatness of God and the fulfillment of his project and plans⁶².

A living human embryo from the moment of the union of the gametes is a human subject with a well-defined identity having continuous and gradual development. Hence at no stage can it be considered a simple mass of cells. As a human individual, the embryo has the right to its own life⁶³. Therefore, every intervention which is not in favour of the embryo is an act which violates that right. The position of the Church is clearly expounded in both *Evangelium Vitae*, *Donum Vitae*⁶⁴ and *Instruction Dignitatis Personae*. Pope John XXIII, in *Mater et Magistra* firmly held that the transmission of human life is the result of a personal and conscious act and is subject to the inviolable and immutable laws of God, which no man may ignore or disobey. No one is therefore permitted to use certain ways and means which are allowable in the propagation of plant and animal life⁶⁵. The Pope emphasized that human life is sacred. "Everyone must recognize that fact. From its very inception it reveals the creating hand of God. Those who violate His laws not only offend the divine majesty and degrade themselves and humanity, they also sap the vitality of the political community of which they are members"⁶⁶. The *Compendium* clearly indicates that *The first right ... is the right to life, from conception to its natural end*, which is the condition for the exercise of all other rights and, in particular, implies the illicitness of every form of

procured abortion and of euthanasia is unacceptable as a solution to problems, that violence is unworthy of man”⁶⁷.

3.0. HUMAN ECOLOGY AND DEMOGRAPHIC CONCERNS OF TODAY IN ASIA

The growing environmental crisis in the recent years is posing a great challenge to Asia. There is a greater awareness today that the goods of the earth cannot be used as it was unfortunately used in the past. Many countries, states and people are consuming the very earth on which our very livelihood depends. The growing phenomenon of climate change and natural disasters call into question our use of the earth’s resources. *Populorum Progressio* asserts that “the whole of creation is ordered in the first place towards its creator and the rationality of humans is directed not to using nature in a thoughtless way but to a recognition of God’s plan and thus to the ‘prior God-given purpose’ of nature”⁶⁸.

The environment affects the nation’s economy at all levels. Industrial and economic sectors depend on the natural resources. Climatic shocks, like droughts or floods, land degradation, soil erosion and industrial pollution have a negative impact on an economy. Human development is obviously linked to health and the root causes of health problems are often linked to environmental conditions. Hence, each one of us is called to examine the choices we make and our lifestyle, and how we can be responsible stewards of God’s beautiful creation. Let us analyse the Asian scenario in some specific areas of human ecology.

3.1. Food Insecurity leading to hunger, malnutrition, ill health in Asia

The environment and human development are inexorably linked. According to WHO, which maintains that household food and nutrition security are basic human rights, nutrition security exists when food security is combined with a sanitary environment, adequate health services and proper care and feeding practices to ensure a healthy life for everyone⁶⁹. The Food and Agriculture Organization of the United Nations (FAO) estimates that globally about one billion people, or around 17% of the world’s population, are “hungry” or undernourished. According to Dr Gro Harlem Brundtland, “Nutrition is a key element in any strategy to reduce the global burden of disease. Hunger, malnutrition, obesity and unsafe food all cause disease, and better nutrition will translate into large improvements in health among all of us, irrespective of our wealth and home country”⁷⁰.

The problem of hunger in Asia has not been sufficiently addressed. A new UNICEF report has revealed that the number of chronically hungry people in South Asia has touched the figure of 400 million, aggravated by high food and fuel prices and the global economic slowdown. The report also said that more than 1.18 billion people, or three quarters of the region’s population, survive on less than \$2 a day⁷¹. Governments need invest heavily in agricultural production and put more money in the hands of the poor. Wide-spread hunger also stunts the development of the economy. Hungry workers are tired, weak, and prone to falling sick. Food scarcity leads to billions of dollars in lost productivity, which leads to further food scarcity⁷². In 2007 and 2008 the price of rice, the staple food throughout South Asia, increased more than 70%, fueled by poor harvests resulting from extreme weather conditions in key rice-growing areas. Even in March 2011, the U.N. Food and Agriculture Organization (FAO) reported that food prices reached another record high, as the price of basic food staples continued to soar⁷³.

South Asian people usually eat rice and other food grain at every meal, which is 50 and 70% of their total daily caloric intake. Rice is the staple food for 65% of India’s one billion people. 84% of the South Asian population lives on less than \$2 per day, and a near-doubling of rice prices is having a catastrophic effect. And because of the low purchasing power of South Asia’s poor, even a small increase in prices can cause a sharp fall in real incomes. In response to this crisis, major rice exporting countries such as India, China and Vietnam announced a ban on export of the grain, so that they can feed their own people. This has forced the price ever-higher, and raised fears of famine in rice-importing countries such as the Philippines, Afghanistan, Bangladesh, and North Korea⁷⁴. In Bangladesh, spiraling rice prices have left

the people facing their worst food shortages since the major famine of 1974. Severe flooding in 2007 and also devastating cyclones Sidr in 2007 and Aila in 2008 also contributed to the price rise. From that time onwards, prices have nearly doubled to about 35 taka (50 cents), while there has been no corresponding increase in wages. Myanmar, the poorest country in Southeast Asia experienced great misery a May 2008 cyclone that killed more than 130,000 people and laid waste to the delta. Burmese farmers are struggling under debt and face declining yields from their rice fields which is grown from low-quality seeds and milled in rusted factories⁷⁵. Over the past 20 years, the Philippines, the world's top most importer of milled rice in 2007, lost nearly half of its irrigated land to rapid urban development. Domestic demand for rice has risen as the population has grown, pushing up prices. President Gloria Arroyo has asked authorities to crack down on hoarders who could be charged with economic sabotage - a crime that carries a life sentence. The government has also asked the public to save leftover rice. Thailand, the world's largest exporter of rice has enforced a rule that exporters set aside at least 500 tonnes of rice to prevent shortages. Rice prices increased by more than 50% in 2007 and have doubled since the beginning of 2008. Though China has an abundant supply of rice to feed its population of more than 1.3 billion, it had stockpiled about 40-50 million tonnes of rice and clamped export restrictions which have had a big impact on importers including North Korea⁷⁶. Half of Pakistan's people are at risk of food shortages due to a steep increase in food prices, according to the World Food Program. The price of wheat flour has more than doubled over three years. 24% of the Pakistan population lives below international poverty line⁷⁷.

According to the 2010 Global Hunger Index released by the International Food Policy Research Institute (IFPRI) entitled 'The Challenge of Hunger: Focus on The Crisis of Child Undernutrition', child malnutrition is the biggest cause of hunger worldwide⁷⁸. According to it, the Global Hunger Index (GHI) for South Asia is 22.9. Hence South Asia has some of the highest levels of under nutrition in the world, and this includes calorie deficits, as well as deficiencies of essential micronutrients. In South and Southeast Asia, Bangladesh, India, Pakistan and Timor-Leste are among countries with hunger levels considerably higher than their gross national income (GNI) per capita, the 2010 IFPRI report said. Malnourished people of all ages are less able to fight off infections such as malaria, dengue fever, and the measles, leading to higher mortality rates. There are 92.7 million stunted children in Southeast Asia and South-Central Asia. With almost half of the country's preschoolers suffering from under nutrition, India currently has the highest proportion of malnourished children in the world, followed by Bangladesh, Ethiopia, and Nepal. India has emerged as the capital of hunger with 214 million people being denied the right to food and about 57 million children remain undernourished⁷⁹. This clearly shows that the food situation in the country has worsened with increasing food prices and unregulated food distribution system. In October 2010, UNICEF confirmed that over three crore children live below the poverty line in Bangladesh, where children constitute 45 percent of the country's population. UNICEF also said about 64 percent of the country's children do not have access to sanitation and 35 percent do not get sufficient food. Extreme poverty and economic difficulties are forcing Bangladeshi children to seek work to help their families⁸⁰. Millions of people in Nepal are finding it very difficult to cope with the excessively high food prices. Nearly half of all children under the age of five in Nepal are underweight⁸¹.

In Southeast Asia, a large proportion of Vietnamese and Indonesian children also suffer from under nutrition⁸². The UN estimates that 61 percent or 615 million of the world's 923 million undernourished people are in Asian and Pacific nations, of which more than 50 percent of the world's undernourished children are in South Asia, predominantly in rural areas⁸³. Progress in reducing under nutrition in the region has been slow, even in vibrant economies like India's. While under nutrition in Asia, as in other regions, is due to a series of factors rooted in poverty - including a lack of access to food, healthcare, safe water, and sanitation services, and inadequate child feeding/caring practices - gender inequality adds to the problem of under nutrition and poverty in Asia⁸⁴. According to the International Food Policy Research Institute (IFPRI) the low status of women in South Asian countries, compared to other countries and regions of similar economic development, is partly responsible for low birth weight and the excessively high levels of childhood under nutrition in the region⁸⁵. In India, for example, high 2010 GHI scores are driven by high levels of child underweight resulting from the low nutritional and social status

of women in the country. In terms of the index components, Bangladesh, India, Timor-Leste, and Yemen have the highest prevalence of underweight in children under five - more than 40 percent in all four countries. (See Table 1, page 22). Chronically malnourished mothers lack access to adequate prenatal, delivery, and postnatal care and are at increased risk of delivering undernourished babies. Hence, nutrition programs and policies in South Asia need to focus on improving women's status.

Pope John XXIII asserted that the basis for judging economic prosperity is not how much the country produces but how well the goods of society are distributed among the people⁸⁶. He challenged the world to come to grips with the dire poverty and hunger in developing countries⁸⁷. and also with the wasting and destruction of surplus in foodstuffs and farm products while masses of people experience want and hunger⁸⁸. He located the main causes of poverty and hunger in the primitive states of some economies,⁸⁹ but at the same time he asserted that we all share responsibility for the fact that populations are undernourished⁹⁰. He rooted the call for help to the poor countries in the name of solidarity of the human race.

3.2. Denudation, Degradation and Appropriation of Land and Forests in Asia

30 percent of Nepal's rural population is landless, most of who are Dalits who live in extreme poverty and starvation, whereas 54 percent are tenants on the land. For example, 70 percent of the Gandharva community of Dalits are landless and face chronic hunger. The Nepali government has failed to redistribute land to the landless even though in 2008-09 it formed a High Level Scientific Land Reform Commission in order to abolish feudal land ownership.

There are many reasons for deforestation in Asia, but a major reason is that the commercial timber companies strip the forests and hills of trees, and the poor peasants living on the flood plains suffer the most⁹¹. However, according to the assistant director general of FAO's forestry department, for the first time, the rate of deforestation has decreased globally as a result of concerted efforts taken both at local and international level. Over the 10-year period from 2000 to 2010, Asia registered a net gain of some 2.2 million hectares annually in the last decade, mainly because of large-scale afforestation programmes in China, India and Vietnam. The growth of new forests has helped bring down the high level of carbon emissions from forests caused by deforestation and forest degradation⁹².

Until recently, large areas of India, like the rest of the world, were covered with thick forests. Great Civilizations were built where these forests flourished, in the valleys of its great rivers, like the Ganga, the Yamuna and the Indus. These were civilizations that reached a high degree of sophistication, and urbanization. Unfortunately, there has been large scale destruction of these forests. However, even today there are diverse and extremely sustainable forest cultures that survive and flourish in the areas where the forests still exist. Across India one has also seen many people's movements where communities have voluntarily come together for the purpose of conservation or in response to environment and ecological crises.

Studies have established beyond doubt that the large scale destruction of the forests was started by the British, India's colonial ruler. This large scale destruction of the forests in India is rooted in the commercially oriented forest use and ownership policies of the British government which continued even after India gained independence in 1947. After independence, agricultural expansion, which was often state sponsored, was the other major cause of deforestation. What has been even worse was that development projects alienated the communities living in the forests, depriving them of their basic sources of survival, forcing them to move away and in the process making them refugees in their own land⁹³.

In this regard, the Andaman and Nicobar Islands make an interesting case study. The islands are clothed in thick evergreen forests that are home to a large biodiversity and also have some of the finest

mangroves and coral reefs found in the world. The islands are also home to six indigenous tribal communities. Their knowledge and understanding of the forests is extensive and they share a close relationship with it. The British were responsible for starting forestry operations in these islands. After independence, thousands of people were brought from mainland India and settled here as a continuation of the colonisation scheme. Consequently, the growth in the timber extraction operations corresponds directly to the growth in the population of the islands. This destruction of the forests for the extraction of timber was in addition to the clear felling that was done for the settlements themselves.

As the population of migrants on the islands grew there was a need for the government to create employment opportunities for the people. The abundant forests and the timber within it became the obvious source for the generation of both income and employment. Thus, timber based industries sprang up. The profits made and the incentives offered by the administration encouraged the plywood mills to go in for substantial augmentation of their production capacities. Today, however, with growing awareness, intervention by the courts and change in policies, logging in the islands appears to be reducing. The people who have suffered the most in these islands are the indigenous communities for whom the forests are home. This has resulted from the combined impacts of the destruction of the forests and the imposition of an alien and insensitive culture that brought along with it various diseases and other vices such as alcohol and tobacco.

A few measures to deal with this problem can be considered. Migration of people from mainland India should be discouraged. Subsidies that make the timber industry profitable should be stopped. The tribals should be involved in conservation and wildlife protection activities. They should also be educated and made aware of the beauty and fragility of the forests, the cost of destruction of the forests and their rights⁹⁴. In promoting care for the environment, the *Compendium* states that the destruction of forests also through the inconsiderate and malicious setting of fires accelerates the processes of desertification with risky consequences for water reserves and compromises the lives of many indigenous peoples and the well-being of future generations⁹⁵.

3.3. Farmer's Livelihood at stake in Asia and particularly in India

From 1997 to 2009, 200,000 farmers ended their lives in India, leaving behind families plunged even further into poverty and with no one to work in the fields, a very tragic phenomenon. Farmer suicides is partly due to an increase their indebtedness caused by the rising of costs of production and the falling prices of farm commodities as a result of the World Trade Organization's (WTO's) free trade policies⁹⁶. The crisis of suicides shows how the survival of farmers is incompatible with the seed monopolies of global corporations. The region in India with the highest level of farmers' suicides is the Vidharbha region in the state of Maharashtra - 4000 suicides per year, 10 per day according to the National Crime Records Bureau (NCRB) in India. In another Indian state, Chattisgarh which was hit by falling water levels from above 40 feet to below 250 feet, led to crop failure and over 1500 farmers committed suicide⁹⁷. Nearly every day, newspapers report more farmer suicides in Andhra Pradesh, an Indian state of 80 million people where 70 percent of the population depends on agriculture - and which has suffered badly from weak monsoon rains⁹⁸. A study carried out by the Research Foundation for Science, Technology and Ecology (RFSTE), Dehra Dun, India shows that due to falling farm prices, Indian peasants are losing \$26 billion annually. This is a burden on their daily livelihood and they find it difficult to accept it. A spate of suicides in poor rural areas of Sri Lanka has drawn attention to the terrible social conditions and economic difficulties confronting farmers in many parts of the country⁹⁹.

However, farmer suicides are not inevitable and there is much hope. This would mean that farmers are helped to make the transition of shifting from chemical farming to organic farming and from using non renewable seeds to using organic seeds. Further, a shift from unfair trade based on false prices to fair trade based on real and just prices necessitated by the State. About 3000 villages in southern India have benefited by giving up the use chemical pesticides and practicing organic farming. Enabavi, a village of 52 families, in Andhra Pradesh, India is hosting farmers from the nearby Kallem village for tips on

profitable agriculture. Pesticide-free tomatoes, okra, brinjals, gooseberries, chillies, leafy vegetables and other vegetables are grown through non-pesticidal management, called NPM vegetables. Farmers are learning ways of increasing productivity without applying synthetic chemicals. These fresh stocks are bought off immediately and farmers experience a rise in their income. Further, farmers no longer have to spray pesticides and hence no longer complain of giddiness, skin problems, breathlessness and burning sensation in the eyes¹⁰⁰.

In *Mater et Magistra*, Pope John in speaking of the common good, repeated the teaching of Pius XI of the need “to maintain a balance between wages and prices”¹⁰¹ and of “a reasonable relationship between the prices obtained for the products of the various economic groups: agrarian, industrial, and so forth”¹⁰². Like Pius XI, he based this teaching of his on the principle of the common good. However, he developed and extended the teaching of Pius XI. According to him, the State and public authorities have an expanded role in coping with social problems¹⁰³. When he examined agriculture as a sector of the economy, he discovered that it was unjustly treated in comparison with other sectors¹⁰⁴. So he proposed an expanded role for it in dealing with special difficulties of those working in agriculture¹⁰⁵ - price support¹⁰⁶ and price regulation¹⁰⁷ and even directing the industry into rural areas¹⁰⁸. The principle that the Pope suggested may be applicable to unfairness in other sectors of the economy- namely, that the responsibility for the price structure rests with various social groups and the State¹⁰⁹. Thus, the Pope gave a mandate for this extra involvement by the State in his desire to curb injustices in the economy.

Having great concern for the agricultural labourer, including the farmer, the *Compendium* underlines the important social, cultural and economic role that they have in the economic systems of many countries, especially in the context of an ever more globalized economy as well as their role in safeguarding the natural environment¹¹⁰. Hence, agrarian reform becomes a moral obligation¹¹¹.

3.4. Disastrous Consequences of Climate Change and Global Warming in South Asia

Climate change is one of the most challenging crises affecting the future of our generations. The climate change phenomenon is a complex one. According to the Food and Agricultural Organization (FAO), the Asia Pacific region is the world's largest producer of aquatic products and employs at least 32 million people. The region accounts for some 51 percent of global fisheries production and close to 90 percent of global aquaculture and employs 85 percent of world's total fishers and aquaculture farmers. Many fishing households which rely on the fish they produce for basic income are already under stress from overfishing, habitat degradation and pollution, and now are facing added anxiety from climate change including severe weather events, storms and droughts, declining stocks of fresh water. Climate change could lead to livelihood loss, increased poverty and malnutrition, and conflict over fish stocks in the Asia Pacific region's fisheries and aquaculture sector¹¹².

The widespread loss of snow and ice in the Himalayan mountain glaciers is one of the most visible changes attributable to global climate change. Many small glaciers are disintegrating and both the greenhouse gases and air pollutants like soot and ozone contribute to the melting¹¹³. Global warming is certainly shrinking the Himalayan glaciers and is leading to the rapid swelling of Himalayan glacial lakes and a high risk of floods in Nepal. Hence, glacial lakes in Nepal are increasingly at risk of bursting the natural dams containing them - endangering the lives of tens of thousands people. The glacial lakes are growing so quickly that the risk of a disaster occurring throughout the Himalayas is increasing. The Nepalese regime has identified about 20 “priority” lakes at risk of leading to glacial lake outburst floods (GLOFs), which not only move very fast but also carry great big boulders that can push down rock walls, destroy river banks and cause rivers downstream to rise up to 35 metres, destroying everything in their path¹¹⁴. The Nepalese government, in coordination with the World Bank, the UNDP, ICIMOD and local NGOs, has been trying to monitor and mitigate the threat, by using methods such as controlled breaching of the dam, pumping or siphoning water from the lake, or tunnelling through or under the barrier and various methods to reduce the volume of water in some of the lakes. Recommendations included the

immediate reduction of worldwide carbon dioxide emissions and reduction of concentrations of warming air pollutants such as soot, ozone, methane and hydrofluorocarbons¹¹⁵.

The Indian Institute of Tropical Meteorology (IITM) predicts that temperatures in the Himalayan region will increase by 0.9 degrees Celsius on 1970s levels, to 2.6 degrees, by the 2030s and rainfall intensity will increase from 2% to 12%. There is evidence to suggest that this rising temperatures in the Himalayan region could make many new areas vulnerable to malaria transmission¹¹⁶. People will also become more vulnerable to water-borne diseases like diarrhea. Unfortunately one area that is still not getting the attention it deserves is the health impacts of global warming. Studies carried out by scientists at the NIMR - one of the leading institutes under the Indian Council of Medical Research suggest that climate change will significantly increase both the intensity and geographic spread of malaria and other vector-borne diseases in areas which have been largely insulated from them in the past. Urgent action needs to be taken in this regard. Health awareness programmes for the people in these hilly remote areas needs to be undertaken¹¹⁷.

Asia is more and more embracing environmentally-friendly technologies. Many Asian companies are focusing on how best to recycle waste products and innovate new technologies to bring about renewable energy development, better waste management and water treatment. China is spending tens of billions of dollars every year on renewable energy projects. Its latest five-year economic plan commits to stringent renewable energy targets¹¹⁸. The Polygenta processing plant in Nashik, India, recycles plastic bottles from patented technology to make polyester fibre. According to the company, the process is more cost efficient and the resulting polyester is of higher quality¹¹⁹.

About one-third of the food produced globally for human consumption each year is wasted, according to a report from the Food and Agriculture Organization (FAO). The FAO found that about 1.3bn tonnes of food is wasted somewhere along the supply chain each year, with wealthier consumers in North America and Europe wasting nearly twice as much as those in poorer countries. While most food wastage in richer nations occurs on a consumer level, in developing countries about 40 percent of wastage happens at the post-harvest or processing level due to poor infrastructure and lack of investment in food production systems. According to FAO, food loss and waste amount to a major squandering of resources, including water, land, energy, labor and capital and needlessly produce greenhouse gas emissions, contributing to global warming and climate change. Developing countries in Asia should strengthen their processing, packaging and transportation infrastructure, and create better links between small farmers and buyers. Consumers should be educated about the impacts of food wastage and taught that throwing away food is unacceptable¹²⁰.

The "India Water Forum" (IWF) 2011 organized by The Energy and Resources Institute (TERI)¹²¹ in April 2011 gave a clarion call to bring water into the global and national agenda in order to meet the challenges of water security posed by the threat of climate change. South Asia with its 2.5 billion people is facing water scarcity as a result of which many people do not have access to sufficient drinking water and sanitation. With the burgeoning population, water stress will only grow. For example, demand for water resources in India is expected to double and exceed 1.4 trillion cubic meters by 2050. Pakistan faces the greatest water crunch. According to the Economic Survey of Pakistan 2006-07, water supply was just over 1000 cubic metres per person. A fall below the mark would make it a water scarce country. Climate change in the Himalayan basin increases tremendously the problem of water insecurity. Further, most of South Asian countries are agrarian economies requiring water-fed irrigation facilities. Water resources are also required to feed the growing demands of industrialization and urbanization. The thirst for energy, especially hydro-power is widespread and pressing. Further, gross mismanagement of water resources and lack of adequate water storage facilities aggravate the water situation in the region. It is imperative for these Asian countries to develop their own efficient water management systems and learn how to minimize wastage and ensure conservation. Bilateral, regional and multilateral cooperation are essential¹²².

Climate change in India stems from poor water management, regional mistrust and vested interest in the water sector. Since Cancun, the dramatic news or change is that the Environment and Forest Ministries of India and China have decided that a cleaner, better environment is good for growth. The *Compendium* clearly states that “the right to safe drinking water is a universal and inalienable right”¹²³ In admitting that inadequate access to safe drinking water often causes diseases, suffering and even death, it recommended that “for a suitable solution to the problem, it must be set in context in order to establish moral criteria based precisely on the value of life and the respect for the rights and dignity of all human beings”.¹²⁴ The *Compendium* also urges that every State “should also actively endeavour within its own territory to prevent destruction of the atmosphere and biosphere, by carefully monitoring, among other things, the impact of new technological or scientific advances ... [and] ensuring that its citizens are not exposed to dangerous pollutants or toxic wastes”.¹²⁵

3.5. Denial of Employment, Health and other rights of Workers especially Migrants

According to UN figures, the employment to population ratio in South Asia fell to 56% in 2008 from 57% in 1998. The 2009 estimates put it even lower at 55%. An International Labour Organization report affirmed that more people got into vulnerable jobs in 2009 due to the financial meltdown. The proportion of employed people living under \$1.25 a day jumped sharply from 44% in 2008 to 51% in 2009¹²⁶.

There is need to **create job opportunities for the unemployed and improved working conditions for the underemployed**. The Church is to **collaborate with various non-governmental agencies** to achieve this purpose. Despite industrial and technological advances in Asia, there is growing inequality which poses serious threats to development and leads to conflict. Even today, “a privileged minority enjoys the refinements of life, while the rest of the inhabitants, impoverished and disunited, ‘are deprived of almost all possibility of acting on their own initiative and responsibility, and often subsist in living and working conditions unworthy of the human person’¹²⁷. The *Compendium* notes that work conditions for men, women and children, especially in developing countries, are so inhumane that they are an offence to their dignity and compromise their health¹²⁸.

3.6. The response of *Mater et Magistra*

In *Mater et Magistra*, John XXIII updated the doctrine begun in *Rerum Novarum*. The encyclical was written some decades after the Second World War and at a time when the Soviet Union had brought socialist and communist governments into Eastern Europe. The Pope emphasized the worker’s rights. He saw the need for solidarity against the background of unregulated competition. It said that “workers and employees should regulate their mutual relations in a spirit of human solidarity...for unregulated competition...is utterly opposed to Christian teaching and also to the very nature of man”¹²⁹. He desired to find a workable solution in relating worker and employer in society. He added qualifications to the just wage principle:

... in this matter, the norms of justice and equity should be strictly observed... In determining what constitutes an appropriate wage, the following must necessarily be taken into account: first of all, the contribution of the individuals to the economic effort; the economic state of enterprises...; the requirements of each community, especially as regards overall employment; finally what concerns the common good of all people¹³⁰.

Here, two aspects are emphasized, namely, the individual’s productivity and company profitability and secondly, the notion of common good.

Pope John XXIII, stressed the importance of people finding in work every incentive for self-expression, self-development and spiritual growth. Also in *Pacem in Terris*, he saw the importance in justice of people having the right to self-development accompanied by the duty of people not to pursue their own interests to the detriment of the good of others¹³¹. Hence true development means the duty to promote the ‘common good’ of all¹³². Hence, Pope John XXIII clearly tells us that development is a deeply human

question. His successor, Pope Paul VI in *Populorum Progressio* took up this concept of development and succinctly stated that development is the new name for peace.

The ruthless exploitation of the earth's resources may benefit a few people but has adverse effects on the masses in Asia. The absolute thirst for profits over the dignity of the human person and unbridled technological development divorced from integral human development are the root causes that are alienating us from our natural environment. In his 1990 World Day of Peace Message, the late Pope John Paul II affirms that the ecological crisis is "a profound moral crisis of which the destruction of the environment is only one troubling aspect"¹³³. In this regard he urged that we must go to the heart of the ecological degradation. Pope John Paul II advocated an education in ecological responsibility because "we are all really responsible for all"¹³⁴. In this regard the *Magisterium underscores human responsibility for the preservation of a sound and healthy environment for all*,¹³⁵ and consequently the *Compendium* urges the need to eliminate the causes of pollution and to guarantee adequate conditions of hygiene and health for small groups as well as for vast human settlements.¹³⁶

4.0. NEW AVENUES FOR A PASTORAL COMMITMENT OF THE CHURCH

The solution today does not lie in manipulating population levels but in calling for sustainable development, a concept introduced by the UN sponsored World Commission on Environment and Development.¹³⁷ Sustainable development is development that uses the earth's resources in the present in such a way without compromising the ability of the future generations to meet their own needs. In order to achieve sustainable development, in the face of a worsening of poverty, hunger, ill health and the continuing destruction of the eco-systems, the protection of the environment needs to be an integral part of the development process¹³⁸. The paradigm 'development without destruction' is a useful one¹³⁹. Long term strategies for sustainable development and conservation of natural resources needs to be carefully worked out and implemented.

4.1. The State to assume greater responsibility to protect the marginalized

In *Mater et Magistra*, Pope John XXIII in paragraph 35 and 36 repeats the teaching of Pope Pius XI on the effects of unrestricted competition, on the concentration of power in the hands of a few, and on the ambition for economic domination. But Pope John XXIII provides here two valuable insights. Firstly, he deplored the fact that even public authorities were serving the interests of more wealthy men. Secondly, he warned that concentration of wealth achieves power over all peoples. In order to restore this situation, Pope John XXIII restates the fundamental principles laid down by Pope Pius XI that "the organization of economic affairs must be conformed to practical morality¹⁴⁰ ... and that economic undertakings be governed by justice and charity as the principle laws of social life"¹⁴¹. With regards to profits, in paragraph 76 he again restates the principle of Pope Pius XI that it is unjust for capital or labour to claim all the profits. To overcome the danger of capital unjustly claiming excess profits, Pope John XXIII proposed that workers should gradually acquire some share in the enterprise by methods as seem more appropriate¹⁴². By this he meant that companies ploughing back their profits in growth should recognize their employees' share in it.

Pope Paul VI appealed to every one by stating that "no one is permitted to disregard the plight of his brothers living in dire poverty, enmeshed in ignorance and tormented by insecurity ... It is the person who is motivated by genuine love, more than anyone else, who pits his intelligence against the problems of poverty, trying to uncover the causes and looking for effective ways of combating and overcoming them"¹⁴³. He was convinced that "when we fight poverty and oppose the unfair conditions of the present,

we are not just promoting human well-being; we are also furthering man's spiritual and moral development, and hence we are benefiting the whole human race”¹⁴⁴.

4.2. Building a Value-based society on peace, solidarity, justice and the universal destination of human goods.

According to Pope John XXIII, human rights promotion is an indispensable mission of the Church. It is the vocation of the state to pursue and **promote common good**. Pope John concludes his encyclical with some insightful thoughts on Catholic social teaching, which he says is valid for all time¹⁴⁵. It is based on the principle that individuals are the foundation, cause, and end of all social institutions¹⁴⁶ and it cannot be separated from the church's traditional teaching regarding human life¹⁴⁷.

Development rests on the solidarity of all. The virtue of solidarity should make the powerful feel responsible for the weak and be ready to share with them what they have. Paul VI wrote: “*There is no progress toward the complete development of women and men without the simultaneous development of all humanity in the spirit of solidarity*” (#43). In other words, those in rich countries are sadly underdeveloped as human beings as long as they live in a world where so many of their sisters and brothers struggle to survive in poor countries with unacceptable human conditions¹⁴⁸.

Networking with NGO’s to provide **development assistance to farmers** and various measures to help in the productivity of their agricultural land. The *Compendium* makes an appeal to people of all goodwill to have preferential love for the poor¹⁴⁹. In referring to **lands subject to erosion** and other such issues, the *Compendium* gives an important principle: “The environmental crisis and poverty are connected by a complex and dramatic set of causes that can be resolved by **the principle of the universal destination of goods**, which offers a fundamental moral and cultural orientation”.¹⁵⁰

Pope Paul VI reminded us that the **superfluous goods of wealthier nations ought to be placed at the disposal of poorer nations**... If prosperous nations continue to be jealous of their own advantage alone, they will jeopardize their highest values, sacrificing the pursuit of excellence to the acquisition of possessions”¹⁵¹. Further, development “cannot be restricted to economic growth alone. To be authentic, it must be well rounded; it must foster the development of each man and of the whole man”¹⁵². Pope John Paul II urged the need for an **education in environmental responsibility** that will lead people to a genuine conversion in thought and behaviour. This has now become urgent¹⁵³. For this, the *Compendium* recommends “an effective change of mentality leading to the adoption of new lifestyles...inspired by sobriety, temperance and self-discipline”¹⁵⁴.

Respect for Biological Diversity: There is an urgent need to promote cooperation with the non-governmental sector for the conservation of biological diversity¹⁵⁵ and the sustainable use of its components is enshrined in the preamble to the Convention on Biological Diversity (which is an International treaty to sustain the rich diversity of life on earth). For example, there is the need to promote the use of bio-degradable products. In this regard the *Compendium* has cautioned the use of various types of biotechnology and their consequences for human health¹⁵⁶. Poor countries lack the economic means either to gain access to existing sources of non-renewable energy or to finance research into new alternative. It will be very beneficial to tap **natural sources of energy** such as the use of the windmill and solar energy panels. Hence Pope Benedict XVI urged the international community to find institutional means of regulating the exploitation of non-renewable resources of these poor countries. He also calls for a worldwide redistribution of energy resources¹⁵⁷. *Caritas in Veritate* has expressed the hope that that the international community and individual governments will succeed in countering harmful ways of treating the environment. The covenant between human beings and the environment should mirror the creative love of God, from whom we come and towards whom we are journeying¹⁵⁸.

To collaborate with the non-governmental organizations to effectively dialogue with the municipal corporations **to clean the water sources** and to lay down rules for individuals and industries in order to

prevent them from polluting the air or water. The *Compendium* states that “Governments should feel encouraged by such commitments, which seek to put into practice the ideals underlying the international community, “particularly through the practical gestures of solidarity and peace made by the many individuals also involved in *Non-Governmental Organizations and in Movements for human rights*”¹⁵⁹.

The *Compendium*, aware of the countless number of poor people who live in polluted suburbs or unsafe houses, recommends relocating them by offering them beforehand **choices of decent housing**, and clearly states that “people directly involved must be part of the process”¹⁶⁰. The *Compendium* urges all individuals as well as institutional subjects to protect the heritage of forests and, where necessary, promote adequate **programs of reforestation**¹⁶¹.

4.3 Final Remarks

The Psalmist sings beautifully “Send forth your spirit O Lord and renew the face of the earth”¹⁶². Pope Benedict aptly reiterates this prayer in *Caritas in Veritate*, when he states “Development must include not just material growth but also spiritual growth, since the human person is ... born of God's creative love and destined for eternal life”¹⁶³. An exclusive reliance on technology, a reason without faith is doomed to perish¹⁶⁴. He emphatically adds that “without God man neither knows which way to go, nor even understands who he is... Openness to God makes us open towards our brothers and sisters and towards an understanding of life as a joyful task to be accomplished in a spirit of solidarity. A humanism which excludes God is an inhuman humanism. ...God gives us the strength to fight and to suffer for love of the common good, because he is our All, our greatest hope”¹⁶⁵. An important cause of underdevelopment is lack of brotherhood among individuals and peoples. Fraternal charity or brotherhood can only be established by faith which is a gift of God and unity in the charity of Christ¹⁶⁶. *Caritas in Veritate* admits the scandal of glaring inequalities¹⁶⁷. It emphasizes the necessity of cultivating a public conscience that considers food and access to water as universal human rights to all human beings, without distinction or discrimination¹⁶⁸.

It is our imperative task and duty to promulgate the social doctrine of the Church. The laity and all people of goodwill have a specific role to play in the catechesis of children, youth and adults and in proclaiming the good news to all. The encyclicals from *Mater et Magistra* to *Caritas in Veritate* encourage us to collaborate as brothers and sisters in solidarity and commit ourselves to the task of eradicating extreme poverty, defending human life from womb to tomb, encouraging a more wider sharing of the goods of the earth especially to all the weaker members in society and ensuring environmental sustainability. Paraphrasing the *Compendium of the Social Doctrine of the Church*, I suggest that our motto be: ‘Solidarity in the development of the common good’.¹⁶⁹

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Table 1
South Asian Countries in 2010

Country	Rank	Score in 1990	Score in 2010
Sri Lanka	39	21.1	14.5
Pakistan	52	24.7	19.1

Nepal	56	27.5	20.0
India	67	31.7	24.1
Bangladesh	68	35.8	24.2

Source: *Global Hunger Index 2010*.

ENDNOTES

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- ¹ Associated Press, India, 31 March 2011. This is according to preliminary figures released by census officials.
- ² Population Reference Bureau 2010, Washington D.C.
- ³ India's slum-dwelling population had risen from 27.9 million in 1981 to 61.8 million in 2001, when the last census was done, according to Kumari Selja, the Minister for Housing and Urban Poverty Alleviation, Government of India.
- ⁴ Jeremy Page, Sunday Times, New Delhi Edition, 'Indian slum population doubles in two decades', 18 May 2007.
- ⁵ Jakarta Globe, 22 Feb 2011.
- ⁶ Jaisu Bhullar, *Society*, Population growth: a neglected problem in Pakistan, 19 July 2010. DW- WORLD.DE, DEUTSCHE WELLE.
- ⁷ The Daily Star, Population control gets government priority in Bangladesh, 3 September 2011.
- ⁸ Population Reference Bureau 2010, Washington D.C., UN Population Division, World Population Prospects: The 2008 Revision (2009).
- ⁹ Pontifical Council for the Family, Ethical and Pastoral Dimensions of Population Trends, Vatican City: 25 March 1994.
- ¹⁰ United Nations ESCAP, Statistical Yearbook for Asia and the Pacific 2009.
- ¹¹ Ibid
- ¹² Jurriaan Maessen in Infowars.com on 17 July 2010.
- ¹³ Rhys Blakely in The Times, Mumbai edition dated March 21, 2008.
- ¹⁴ Myint N., Asia Pacific Population Journal, June 6, 1991 (2):3-20.
- ¹⁵ One World South Asia, IRIN News, 15 March 2010.
- ¹⁶ Pope John XXIII, Mater et Magistra, 1961, no. 189.
- ¹⁷ Pope John XXIII, Mater et Magistra, 1961, no. 190.
- ¹⁸ Pope John XXIII, Mater et Magistra, 1961, no. 157.
- ¹⁹ Pope John XXIII, Mater et Magistra, 1961, no. 192, 191.
- ²⁰ FAO, The State of Food Insecurity in the World 2008. Rome: Food and Agriculture Organisation, 2008
- ²¹ South Asia consists of the following eight countries: Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- ²² United Nations Data, UN Population Division, Department of Economic and Social Affairs 2009.
- ²³ Kabul, Afghanistan, One World South Asia, High birth rate puts Afghan women at risk, 18 July 2008. See also Irin News Org.
- ²⁴ Bogalay, Burma, *The Christian Science Monitor*, Burma's empty rice bowl, 7 July 2010.
- ²⁵ David Bloom and Larry Rosenberg, The Future of South Asia: Population Dynamics, Economic Prospects, and Regional Coherence, February 2011.
- ²⁶ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. 2. See also Pope Benedict XVI, Caritas in Veritate, no. 75.
- ²⁷ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. 5.
- ²⁸ The European Society for Human Reproduction and Embryology, Belgium as quoted by Emily Galpern, Project Director on Reproductive Health and Human Rights, Gender and Justice Program, Center for Genetics and Society, Oakland, CA, December 2007. Data presented at the annual conference of the European Society of Human Reproduction and Embryology (ESHRE), June 2006.
- ²⁹ The Hindu, New Delhi Edition, 10 October 2010.
- ³⁰ The Asian Age, 11 June 2004.
- ³¹ Amana Fontanella-Khan, India, the rent-a-womb capital of the world, in *Slate*, Aug. 23, 2010. <http://www.slate.com/id/2263136>.
- ³² Muhd Nurluqman, Tan Wei Xin & David Lee Shijian, The Indian Surrogate, A look into India's surrogacy Industry. Ebook, 20 March 2010.
- ³³ Ibid.
- ³⁴ Cfr. Rahul Ranadive, Parenthood and nationality issues in the complex situation of transnational surrogacy in India - Documentary film on transnational surrogacy in India. *Documentary film on transnational surrogacy in India*.
- ³⁵ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. II, 4; see also Instruction Dignitatis Personae on Certain Bioethical Questions, no. 12, 14.
- ³⁶ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. II, 5.

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- ³⁷ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. II, 2.
- ³⁸ Congregation for the Doctrine of the Faith, *Donum Vitae*, no. II, 3.
- ³⁹ German twins Leonard and Nikolas born to a surrogate in Gujarat in 2008 got stuck in a legal wrangle because German laws do not recognize surrogacy. After a fierce battle in the Indian SC, the MEA issued exit permits to the twins in May last year following the German government's decision to grant the children visas. The twins are yet to get German citizenship. Manji Yamada was born by a surrogate in Gujarat to Japanese parents. During the surrogate's pregnancy, the couple got divorced and the maternal grandmother came to India to claim the child. A Jaipur-based NGO petitioned the Jaipur high court, arguing the baby could not be claimed by anyone. The matter reached the SC, which directed the government to give Manji a travel certificate.
- ⁴⁰ Indian Express, Ahmedabad edition, Nov 12 2009.
- ⁴¹ The Supreme Court of India recently upheld the decision to dis-qualify a member of a village council in the Haryana for violating the two-child norm, which sets a limit of two to the number of children a couple can have. Chief Justice R.C. Lahoti and Justices G.P. Mathur and P.K. Balasubramanyan, observed, "it was in the national interest to check the growth of population by casting disincentives even through legislation." See India Currents, S, Gopikrishna and Rajeev Srinivasan, "Two Child Norm as Policy", 6 Jan 2005.
- ⁴² Sen, Amartya, "More Than 100 Million Women Are Missing". *New York Review of Books*, 1990.
- ⁴³ Sherry Karabin, Infanticide, Abortion Responsible for 60 Million Girls Missing in Asia, Fox News, 13 June 2007.
- ⁴⁴ Nirmala Carvalho, Asia New Net, India, 10 million female fetuses aborted in 20 years, 01 September 2006.
- ⁴⁵ Armenian Medical Network, Gynecology news, 09 January 2006.
- ⁴⁶ It referred to Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh states (BIMARU). It was an acronym coined by demographer Ashish Bose to group together states which were lagging behind and retarding India's development.
- ⁴⁷ Vibhuti Patel, The Political Economy of Missing Girls in India in *Sex Selective Abortion in India*, ed. Tulsi Patel, Sage Publications, New Delhi, 2007.
- ⁴⁸ Shirish Sheth, Breach Candy hospital, Mumbai, The Lancet, January 2006.
- ⁴⁹ Provisional Census Report of India 2011 according to the 15th Census data released on 31st March 2011.
- ⁵⁰ The Pioneer, 4 April 2011. Gender Imbalance, Bias Worldwide Phenomenon.
- ⁵¹ The World's Women – Trend and Statistics, UNFPA, United Nations, NY: 1995.
- ⁵² Rapp, R. "The Ethics of Choice", USA: *Ms. Magazine*, April 1984.
- ⁵³ S. H. Venkatramani, Born to Die in *India Today*, vol 31, 15 (June 1986) 26-33.
- ⁵⁴ Sarala Gopalan, Practice of getting rid of unwanted girls: The Profile of the Empowered Women: Vision 2020 in the Report of the Committee on India, Planning Commission, Government of India, 2007, pages 401-402.
- ⁵⁵ S. H. Venkatramani, *Ibid*.
- ⁵⁶ One-Minute World News, BBC News. India Announces Girl Child Award, 5 March 2008.
- ⁵⁷ A recent report from the Pakistani National Committee for Maternal and Neonatal Health and the US-based Guttmacher Institute contains alarming figures.
- ⁵⁸ National Report of 2002 as quoted by Debarati Mukherjee in DW- WORLD.DE, DEUTSCHE WELLE, Asia, 18 November 2009.
- ⁵⁹ CT Nilesh, Asia News Net, Trivandrum, Catholic hospitals in Kerala re-canalise sterilized women, 8 March 2009.
- ⁶⁰ Beijing, China, Asia News Net, 22 December 2010. The CHRDR report cites the example of Liu Dan, from Liuyang City in Hunan Province, "became pregnant before she reached the age at which she could legally marry, which is 22 for men and 20 for women. Liu and her boyfriend then decided to get engaged. Liu's child was due to be born on March 5, 2009, but just a little over a week before the due date, on February 26, Liu was seized at her home by officials from the town family planning bureau, who forced her to undergo an abortion. Liu and her child died on the operating table".
- ⁶¹ John XXIII, Encyclical Letter, *Mater et Magistra*, (Christianity and Social Progress), 15 May 1961, no. 246. "For it is indeed clear that the Church always taught and continues to teach that advances of science and technology and the prosperity resulting therefrom, are truly to be counted as good things and regarded as sign of the progress of civilization. But the Church likewise teaches that goods of this kind are to be judged properly in accordance with their natures: they are always to be considered as instruments for man's use, the better to achieve his highest end: that he can then more improve himself and in both the natural and supernatural order".
- ⁶² Second Vatican Ecumenical Council, *Constitutio pastoralis de ecclesia in mundo huius temporis*, (Pastoral Constitution of the Church in the Modern World), Gaudium et Spes 7 December 1965, no. 34. "Far from considering the conquest of man's genuine and courage as opposed to God's power, as if he sets himself as rival to the Creator, Christians ought to be convinced that the achievement of the human race are signs of God's greatness and the fulfillment of his mysterious design".
- ⁶³ *Donum Vitae* asserts: "The fruit of human generation from the first moment of its existence, that is to say from the moment the zygote has formed, demands the unconditional respect that is morally due to the human being in his bodily and spiritual totality. The human being is to be respected and treated as a person from the moment of conception; and therefore from that same moment his rights as a person must be recognized, among which in the first place is the inviolable right of every innocent human being to life". Chapter I, no.2.
- ⁶⁴ John Paul II, Encyclical Letter, *Evangelium Vitae* (25 March 1995), no. 60.; See also *Donum Vitae*. "The Church has always taught and continues to teach that the result of human procreation, from the first moment of its existence, must be guaranteed that unconditional respect which is morally due to the human being in his or her totality and unity in body and spirit. The human

being is to be respected and treated as a person from the moment of conception; and therefore from the same moment his rights as a person must be recognized, among which in the first place is the inviolable right of every innocent human being to life”.

⁶⁵ Pope John XXIII, *Mater et Magistra*, no. 193.

⁶⁶ Pope John XXIII, *Mater et Magistra*, no. 194. See also CDF, Declaration on Procured Abortion, no. 7.

⁶⁷ *Compendium*, no. 155. See also *Compendium* No. 233 “Concerning the “methods” for practising responsible procreation, the first to be rejected as morally illicit are sterilization and abortion[521]. The latter in particular is a horrendous crime and constitutes a particularly serious moral disorder[522]; far from being a right, it is a sad phenomenon that contributes seriously to spreading a mentality against life, representing a dangerous threat to a just and democratic social coexistence[523].

⁶⁸ Archbishop Diarmuid Martin on 'Populorum Progressio', Zenit News, 22 October 2007. Confer Pope Paul VI, *Populorum Progressio*, no. 16.

⁶⁹ WHO, A Review of Nutrition Policies, December 2010. Further, food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food.

⁷⁰ Director-General, WHO at the World Economic Forum 2000.

⁷¹ Matthias Williams, *Reuters*, New Delhi, 3 June 2009.

⁷² Kallie Szczepanski, Hunger in Southeast Asia in *Helium*, 14 April 2008.

⁷³ Population Institute, 8 April 2011.

⁷⁴ Kallie Szczepanski, *Ibid*.

⁷⁵ Bogalay, Burma, *The Christian Science Monitor*, Burma's empty rice bowl, 7 July 2010.

⁷⁶ BBC News, One Minute World News, “Asian State feel Rice Pinch”, 11 April 2008.

⁷⁷ Right Vision News, Pakistan, 28 March 2011.

⁷⁸ The International Food Policy Research Institute (IFPRI) Report titled 'The Challenge of Hunger: Focus on The Crisis of Child Undernutrition', 2010.

⁷⁹ The Hindu, New Delhi edition, 31 July 2009.

⁸⁰ The Daily Star, Dhaka, Bangladesh, 22 October 2010.

⁸¹ Sam Taylor and Sarah Crowe, UNICEF, Mugu District, Nepal, 19 May 2009.

⁸² R.E. Black, L.H. Allen, Z.A. Bhutta, L.E. Caulfield, M. de Oni, M. Ezzati, C. Mathers, and J. Rivera, for the Maternal and Child Undernutrition Study Group. 2008. Maternal and child undernutrition: Global and regional exposures and health consequences. *Lancet* 371: 243–6. All nutritional status indicators are calculated using WHO 2006 standards. According to BBC, half of the world's under-nourished children live in South Asia (Cfr. Geeta Pandey, BBC News, New Delhi, India, 13 October 2006.

⁸³ IRIN Asia, Global News, Colombo: ‘ASIA-PACIFIC: Hunger a growing threat to the region’ 12 May 2011.

⁸⁴ *Ibid*.

⁸⁵ P. Svedberg. 2007. Child Undernutrition in India and China. *IFPRI 2020 Focus Brief on the World's Poor and Hungry People*. Washington DC: IFPRI.

(www.ifpri.org/2020Chinaconference/pdf/beijingbrief_Svedberg.pdf).

⁸⁶ Pope John XXIII, *Mater et Magistra*, no. 74.

⁸⁷ Pope John XXIII, *Mater et Magistra*, no. 157.

⁸⁸ Pope John XXIII, *Mater et Magistra*, no. 161.

⁸⁹ Pope John XXIII, *Mater et Magistra*, no. 163.

⁹⁰ Pope John XXIII, *Mater et Magistra*, no. 158.

⁹¹ James Petras and Henry Veltmeyer, *Globalization unmasked*, Madhyam Books, p. 124.

⁹² FAO Report 2010. See also the Independent, UK, *Sunday*, 28 March 2010

⁹³ Pankaj Sekhsaria, Kalpavriksh, World Rainforest Movement. Underlying Causes of Deforestation and Forest Degradation : Asia. – Prepared by Pankaj Sekhsaria, Kalpavriksh, Environment Action Group, Pune, India. <http://www.wrm.org.uy/deforestation/Asia/India.html>

⁹⁴ Pankaj Sekhsaria, Kalpavriksh, *Ibid*. Case Studies of Andaman Island, Uttara Kannada and Gadchiroli - Chandrapur, India.

⁹⁵ *Compendium*, no. 446.

⁹⁶ According to Vandana Shiva “Corporations prevent seed savings through patents and by engineering seeds with non-renewable traits. As a result, poor peasants have to buy new seeds for every planting season and what was traditionally a free resource, available by putting aside a small portion of the crop, becomes a commodity. This new expense increases poverty and leads to indebtedness”. See Vandana Shiva, Director of the Research Foundation for Science, Technology, and Natural Resource Policy in New Delhi in ‘Why Are Indian Farmers Committing Suicide and How Can We Stop This Tragedy?’ in *Voltaire.net* on 23 May 2009.

⁹⁷ The Belfast Telegraph, 15 April 2009.

⁹⁸ Associated Press, Hyderabad, India, 27 August 2009.

⁹⁹ W.A. Sunil, Suicides highlight desperate conditions facing Sri Lankan farmers, World Socialist Website, 10 June 2005.

¹⁰⁰ Savvy Soumya Misra, *Down to Earth*, Science and Environment Online, 15 January 2009.

¹⁰¹ MM 79.

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- ¹⁰²MM 139.
- ¹⁰³MM 120.
- ¹⁰⁴MM 140.
- ¹⁰⁵MM 128-141.
- ¹⁰⁶MM 137.
- ¹⁰⁷MM 140.
- ¹⁰⁸MM 141.
- ¹⁰⁹ Bernard Häring, *The Law of Christ*, Vol. 3, *Special Moral Theology*, trans. Edwin G. Kaiser (Cork: The Mercier Press, 1967), 456-457.
- ¹¹⁰ *Compendium*, no. 299.
- ¹¹¹ *Compendium*, no. 300.
- ¹¹² Thin-lei win in Alertnet, A Thomson Reuters Foundation Service, Bangkok, 10 September 2010.
- ¹¹³ Veerabhadran Ramanathan, Scripps Institution of Oceanography, University of California, San Diego, Vatican-Commissioned Report Calls Attention to Glaciers, 9 May 2011.
- ¹¹⁴ IRIN News, 21 September 2010. According to an International Centre for Integrated Mountain Development (ICIMOD) report released in May 2010, Nepal experiences more than 1,000 earthquakes a year, has 2,323 glacial lakes and is particularly vulnerable to GLOFs. The UN Development Programme (UNDP) says glacial lake outburst floods (GLOFs) have occurred in the recent past roughly every 2-5 years.
- ¹¹⁵ Veerabhadran Ramanathan, *Ibid.*
- ¹¹⁶ Patralekha Chatterjee, Diseases of climate change, in the Third Pole, New Delhi, May 12, 2011.
- ¹¹⁷ Patralekha Chatterjee, *Ibid.*
- ¹¹⁸ Richard Anderson, BBC News Business, 11 May 2011.
- ¹¹⁹ *Ibid.*
- ¹²⁰ Caroline Scott-Thomas, One-third of global food production goes to waste: FAO in Food Navigator-USA.com, 13 May 2011.
- ¹²¹ The India Water Forum was in consonance with the Ministry of Water Resources and the Department of Drinking Water Supply, Government of India.
- ¹²² Arpita Mathur, S.Rajaratnam School of International Studies (RSIS), Eurasia Review and News Analysis, New Delhi, 9 May 2011.
- ¹²³ *Compendium*, no. 484.
- ¹²⁴ *Compendium*, no. 484.
- ¹²⁵ *Compendium*, no. 468. See also, John Paul II, Message for the 1990 World Day of Peace, 9: AAS 82 (1990), 152.
- ¹²⁶ Himanshi Dhawan, Times News Network, India, Jun 23, 2010.
- ¹²⁷ Pope Paul VI, *Populorum Progressio*, no. 9.
- ¹²⁸ *Compendium*, no. 301.
- ¹²⁹ MM 23; See also MM 146, 155;
- ¹³⁰ MM 71.
- ¹³¹ Pope John XXIII, *Pacem in Terris*, 1963, no. 92-92, 98, 100, 122.
- ¹³² The term common good is used very much by Pope John XXIII in *Mater et Magistra* nos. 20, 37, 40, 44, 54, 56, 65, 71, 85, 96, 104, 112, 117, 133, 140, 147, 151.
- ¹³³ Pope John Paul II, World Day of Peace, 1990, no. 5. Cfr. Also no. 7 and no. 15.
- ¹³⁴ Pope John Paul II, SRS no. 38.
- ¹³⁵ Cf. John Paul II, Encyclical Letter *Sollicitudo Rei Socialis*, 34: AAS 80 (1988), 559-560. See also, *Compendium*, no. 465.
- ¹³⁶ *Compendium*, no. 465. See also, John Paul II, Address to participants in a convention on "The Environment and Health" (24 March 1997), 5: L'Osservatore Romano, English edition, 9 April 1997, p. 2.
- ¹³⁷ World Commission on Environment and Development: Our Common Future, Oxford University Press, 1987.
- ¹³⁸ U.N. Conference on Environment and Development, Rio de Janeiro, 1992.
- ¹³⁹ M.K. Prasad, Ecology, Science and Sustainability in Ecological Concerns: An Indian Christian Response. eds. Joseph Mattam and Jacob Kavunkal. The 20th Meeting of the Indian Theological Association, Aluva, 26 to 30 April 1997. Published by N.B.C.L.C., Bangalore, 1998, page 41.
- ¹⁴⁰ MM 37.
- ¹⁴¹ MM 39.
- ¹⁴² Pope John XXIII, MM no. 77.
- ¹⁴³ Pope Paul VI, *Populorum Progressio*, no. 74, 75.
- ¹⁴⁴ Pope Paul VI, *Populorum Progressio*, no. 76.
- ¹⁴⁵ Pope John XXIII, MM no. 218.
- ¹⁴⁶ Pope John XXIII, MM no. 219.
- ¹⁴⁷ Pope John XXIII, MM no. 222.
- ¹⁴⁸ Michael Casey, *Populorum Progressio: Challenge and Guidance for the Church Today*. Western Conference for Social Justice, Calgary, Alberta, 21 October 2006.

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- ¹⁴⁹ Compendium, no. 3.
¹⁵⁰ *Compendium*, no. 482.
¹⁵¹ Pope Paul VI, *Populorum Progressio*, no. 49.
¹⁵² Pope Paul VI, *Populorum Progressio*, no. 14.
¹⁵³ Pope John Paul II, World Day of Peace 1990, no. 13.
¹⁵⁴ *Compendium*, no. 486.
¹⁵⁵ See *Compendium*, no. 466.
¹⁵⁶ *Compendium*, no. 472, 474.
¹⁵⁷ Pope Benedict XVI, *Caritas in Veritate*, no. 49.
¹⁵⁸ Pope Benedict XVI, *Caritas in Veritate*, no. 50.
¹⁵⁹ *Compendium* no. 443. See also, John Paul II, Message for the 2004 World Day of Peace, 7: AAS 96 (2004), 118.
¹⁶⁰ *Compendium*, no. 482.
¹⁶¹ *Compendium*, no. 466.
¹⁶² Psalm 103.
¹⁶³ Pope Benedict XVI, *Caritas in Veritate*, no. 76.
¹⁶⁴ Pope Benedict, *Caritas in Veritate*, no. 74.
¹⁶⁵ Pope Benedict XVI, *Caritas in Veritate*, no. 78.
¹⁶⁶ Pope Benedict XVI, *Caritas in Veritate*, no. 11, 18, 19. Pope Benedict quotes *Populorum Progressio*, no. 21
¹⁶⁷ Pope Benedict XVI, *Caritas in Veritate*, no. 22.
¹⁶⁸ Pope Benedict XVI, *Caritas in Veritate*, no. 27.
¹⁶⁹ *Compendium* no. 582.