

Overpopulation, Global Warming and Biofuel: the Triple Jeopardy that Requiring Reflection in Bioethics and Environmental Ethics

Nüfus Patlaması, Küresel Isınma ve Biyoyakıt: Biyoetik ve Çevre Etiğine Yansıması Gereken Üçlü Tehlike

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ABSTRACT This article aims to capture and illustrate the current issue of global overpopulation, abuse of earth and world poverty. The interaction revolving among them has deteriorated the existing jeopardy. With the severity of such a trend of continuing damages, there are many social, legal, international and political implications arisen. For these and other reasons, upon reflection, it is mandatory that all of us must take it very seriously. Under the aforementioned humble but serious understanding, this article achieves in developing an assessment on the above issues according to the principles of bioethics and environmental ethics.

Key Words: Bioethics, biofuel, environmental ethics, global warming, overpopulation, reflection, triple jeopardy

ÖZET Bu makale, global nüfus artışı, yeryüzünün kötü kullanımı ve dünya yoksulluğu konusunu ele almayı ve tanımlamayı amaçlar. Aralarındaki etkileşim var olan tehlikeyi kötüleştirir. Bu şekilde devam eden zararların şiddeti ile birlikte ortaya çıkan birçok sosyal, hukuki, uluslararası ve politik etkiler vardır. Yansımaya bağlı bu ve diğer nedenler için, bu konuyu herkesin ciddiye alması gerekir. Bu makale, sözü edilen sıradan ama ciddi anlayış altında, biyoetik ve çevre etiği prensiplerine göre yukarıdaki konularda bir değerlendirme geliştirmeyi sağlar.

Anahtar Kelimeler: Biyoetik, biyo-yakıt, çevre etiği, küresel ısınma, nüfus patlaması, yansıma, üçlü tehlike

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*My Interest is in the future because
I am going to spend the rest of my life there.*

by C.F. Kettering¹

¹Charles F. Kettering retired from General Motors Research in 1947, and after several strokes died in 1958. His legacy extended beyond his inventions: His dedication to "practical education" yielded the Flint Institute of Technology in 1919 and the General Motors Institute in 1926 (now Kettering University), and in 1945 he helped establish the New York cancer research facility, the Sloan-Kettering Institute. Kettering summed up his career beautifully when he said, "My interest is in the future because I am going to spend the rest of my life there."

Some quotations from the great self-starter himself.....

There will always be a frontier where there is an open mind and a willing hand.

The world hates change, yet it is the only thing that has brought progress.

It is not what we know that is important, it is what we do not know.

A research problem is not solved by apparatus; it is solved in a man's head.

Incurable diseases are only those the doctors do not know how to cure.

We must look forward to the future as that is where most of us will be spending the rest of our lives.

It doesn't matter if you try and try and try again, and fail. It does matter if you try and fail, and fail to try again.

Nothing ever built arose to touch the skies unless some man dreamed that it should, some man believed that it could, and some man willed that it must.

With willing hands and open minds, the future will be greater than the most fantastic story you can write. (from <http://www.kmcnetwork.org/hospitals/kettisms.cfm>)

ANCIENT POPULATION AND AGRICULTURE

Historically, it was the adoption of agriculture freed portion of a population to concentrate on understanding of spirituality in the ancient time. From the viewpoint of agricultural spiritualism, there is a concept that the notion of food production/ consumption and the important spiritual character of humanity are associated with each otherⁱⁱ.

It is traditionally maintained that spirituality is present in human consciousness, is possibly that from which spirituality is produced. In addition, spirituality is approachable to every one who cultivates it. It is noteworthy that the association of agriculture includes such agriculturally figurative expression as "cultivate" in language used by most mystics athwart history. In this context, according Lindsay Farvey¹, there are at least two factors to believers of this concept to defend the aforementioned association between food production/ consumption and the important spiritual character of humanity.

Firstly, agriculture was the prepossessions of most of the population of the world at the time that most of the scriptures of the persevering religions

were acquiesced. Secondly, an access that agriculture applies to generate the most suitable situation for its reaping is the identical that suggested by the conventional religions for generating notions of wisdom.

As a matter of fact, Religion-and-Agriculture is a realization of ancient wisdom that has been unfortunately ignored since European industrial revolution. With the spread of Western culture to the East, particularly from last century, with confrontation between Eastern appreciations of comprehending of nature vs. Western manipulation- of-nature based access of agriculture. This confrontation has resulted in an awareness of the benefits of smallholder agriculture where farmers' agricultural practices are incorporated with their cultural persuasion and performance, frequently reduced to a code such as in religion. In this context, along with the association of religion and agriculture establish the ground of broadening the scope of research within the general field of agricultural philosophy, according to Falvey¹, which is a lively example of the development, or actually reestablishment of a mind of farsighted imagination (based on ancient wisdom, in this very example of religion and agriculture).

ⁱⁱ The cultural and spiritual values of some parts of agricultural biodiversity can sometimes be considered as more important than monetary values. Many rural communities designate certain biological diversity-rich areas of land or water as sacred. Sacred groves, for example, are clusters of forest vegetation that are preserved for religious reasons. They may honor a deity, provide a sanctuary for spirits, or protect a sanctified place from exploitation; some derive their sacred character from the springs of water they protect, from the medicinal and ritual properties of their plants, or from the wild animals they support (Chandrakanth and Romm, 1991). Such sacred groves are common throughout southern and south eastern Asia, Africa, the Pacific islands and Latin America (Shengji, 1991; Niamoa-Baidu et al, 1992). The spiritual values of sacred places on land or water are often inextricably tied with the functions that their associated agricultural biodiversity may provide in maintaining the health of the ecosystem. For instance, in a ranking exercise conducted to show the relative importance of different values derived from savannah woodlands in Zimbabwe, villagers explained that one of the most important aspects of their woodland was the sacred areas it contained. Honoring and preserving these sacred areas according to the wishes of the ancestral spirits is essential for good rainfall. The wide range of consumption benefits derived from the woodland were ranked lower than these spiritual ecosystem functions, as they could not exist without the rains, which in turn depend on the sacredness of the woodland (Hot Springs Working Group, 1995).

Box 3. Livestock diversity's contributions to food and livelihood security

Domestic animals' contributions to livelihood security are highly site specific and seasonal, and their importance differs from one social group to another. Each contribution of livestock diversity to livelihoods is governed by many interacting institutional factors and social relations. For each economic and ecological setting, a differentiated analysis of livelihoods is therefore essential to understand what a particular contribution of livestock is worth, to whom, when and in what way. Some of the products of animal diversity include:

- Food. Domestic animals provide a considerable part of the food requirements of pastoralists. For small scale mixed farmers they can be especially important during the seasons of grain scarcity.
- Nutrients. Domestic animals are important sources of essential amino and fatty acids. Ruminants through their symbionts also convert cellulose into products that are digestible to humans.
- Clothing. Wool, hair and leather are used for making garments, blankets, shoes, bags etc.. These may be for subsistence or income generation.
- Utensils. Bone is used to make a variety of utensils, leather for making bags to carry water, food etc.
- Construction. Hides, wool and other fibers are used to make shelters.
- Transport. In some countries animals still provide the most affordable form of transport.
- Traction. Domestic animals reduce the amount of human labor needed for farm operations
- Fuel. In some places, animal dung is the only fuel available.
- Fertilizer. Animal manure is an important component of many mixed farming and aquaculture systems
- Income. Animals convert low value scattered feedstuffs into high value commodities. Since ownership is not a prerequisite for keeping animals, income derived from animal products can be especially important for the poor. Revenue from small animals may be the only income controlled by poor women.
- Insurance. Animals are a readily convertible source of cash and provide a safety net against unforeseen events, such as adverse climatic conditions, temporary food shortages, changes in family circumstances, and unstable commodity prices.
- Spiritual functions. Animals often play important roles in religious ceremonies and rituals.

Modified from: Intermediate Technology Development Group, 1996. Livestock keepers safeguarding domestic animal diversity through their animal husbandry.¹ From <http://www.fao.org/docrep/x2775e/X2775E03.htm>

Here is a on paper reference in the above article that readers may be interested in:

Posey, D. A. (Ed), 1999. Cultural and Spiritual Values of Biodiversity, UNEP-Leiden University and Intermediate Technology Publications, London

Now that beyond the era of agriculture, nevertheless, human beings needs to have self – esteem and self-respect. Unfortunately, with necessary self-reflection, in addition to the existing current global population problem, there is still the double jeopardy, namely: the issue of abusing our earth and the problem of global poverty.

■ THE EXISTING GLOBAL POPULATION PROBLEM

The book of Genesis give the account of our world creation and says God found what he made was not only good but very good (Genesis, Chapter 1:4-31).² Unfortunately, on such a very good earth that God has made, we human beings have so many problems in the world today, such as overproduction in resource-poor regions, poor use and even abuse in affluent regions, worldwide lack of concern for problems facing the proper life style of Earth, etc.

Most people think of overpopulation as the cause of hunger in Ethiopia, the squalid type of environment in Columbia, the overcrowded living conditions in Bangladesh and the many bodies of dead men, woman and children shown in television. It is this type of scenario that revitalizes the Reverend Thomas Mathus' contention that humanity had a tendency to procreate faster than the food supply.³ Despite the large increase of the world's human population in this century, however, the health and productivity of the world has burst at the seams. The world's population in most parts is better, more was produced and more was consumed than at any other time in past history. All of this tells us that our natural resources are being exploited to keep up with our growing needs. It is such a critical juncture.

■ SOME TRENDS IN WORLD POPULATION GROWTH

According to Paul Ehrlich, the author of "The Population Bomb"⁴ the population growth is one of the major reasons for the planet's environmental ills. Furthermore, without population control our earth will further degrade. As a result of these adversities, the world must come to terms with the reality of a very serious imbalance between food

resources and people. Such an imbalance has been reported at least since 1994, not to mention at this juncture, which is 14 years more since then.

The world population growth had not been steady from 1950/55 to 1990/95, as per the United Nations' estimate and projection prior to 1950.⁵ The rate of natural population increases, peaked at 2.0 per cent in the 1960s; which is now around 1.6 percent per year.⁶

In the more developed regions defined by member countries of the Organization for Economic Cooperation and Development (OECD) and the former Warsaw Pact is about 0.4 percent a year. By contrast, the less developed regions are about 1.9 percent a year, or more than four times the growth pace. The rate of natural population increase for Africa is around 2.8 percent a year, however, the average rate for Asia is 1.6 percent a year, and for Latin America is 1.8 percent a year, which shows a slower pace of population growth, merely based on the United Nations' report back in 1994.

The problem with the aforementioned rates of natural population increase is that population trends cannot be accurately forecast for a region, or a country, and much less for the entire world. Demographers accept the inherit reality of a science that has no method which will accurately predict the birthrates or death rates of the future. Because of this uncertainty, long-term world population projections come into agreement merely by chance.

Since the current trends in world population growth will certainly caused a "crisis" that will increase the risk of "economic and ecological catastrophes"

It has been due to these conclusions, sentiments and concerns that have brought government and non-governmental organizations throughout the world to meet at the International Conference on Population and Development, held in Cairo in September 1994, under the auspice of the United Nations Population Fund (UNFPA).

What resulted from this conference was an agreement by all the attendants to a twenty-year

“Program of Action”, that in addition to many other global concerns, proposed the slowing down of growth in world population. An important aspect of their objectives is having by the year 2015 a global population target of 7.27 billion people. It is with this projected figure in mind, population programs must be dramatically expanded to low-income with high-fertility rate countries. The UNFPA’s Program of Action endorsed a funding amount of \$17 billion, to show its serious commitment, for population and family planning objectives in the developing countries.⁷

OUR GLOBAL ENVIRONMENT’S SURVIVAL AND FERTILITY CONTROL

It is noted that Reverend Thomas Mathus has a contention as follows. He feels that humanity had a tendency to procreate faster than the food supply.³⁻⁵

The Mathus kind of awakening message moved a great number of the world’s governments and others to control fertility. Due to these efforts, fertility declines: smaller family size motivated by the attitudes of the head of the family. Eberstadt notes that based on these attitudes a decline was first seen in France, Japan, Cyprus, Puerto Rico and Costa Rica. Fertility decline is today a characteristic of most world population.⁶

The United Nations’ estimates and projections of global and regional total fertility rates (United Nations, 1994) for a better understanding of them.⁷

In fact, fertility decline has been further stimulated by the postwar period’s revolution in contraceptives, for example birth control pill, the intrauterine device (IUD), injectable contraceptives, and routine sterilization procedures; and further research has made way for safer and effective condom and diaphragm. These new forms of population control have shown a dramatic effect on slowing world population growth in countries like South Korea, Colombia, Ecuador, Indonesia, Turkey and Thailand. Moreover, contraceptives are well accepted by a variety of income and educational levels, by different religions, and by different cultural and historical backgrounds.

It is parental preferences, however, and not contraceptives technology which is the determining factor of society’s average family size.⁸

OUR EARTH HAS BEEN HARMED

On the other hand, such things that deplete the ozone layer have harmed our earth. As a consequence, it as well creates the greenhouse effect, global warming and the degradation of the atmosphere, Toxic chemical pollution, extinction of variety of species, biofuel and the after-effect of overpopulation. This article aims to address the complex issue of overpopulation in a very limited way in which only limited to areas of population trends, fertility control and its effects upon the survival of our global environment.

That being stated, traced back to September of 1987, the Montreal Protocol in Canada, originally signed by 23 nations, had the consent to decreased chlorofluorocarbons (CFCs) and other chemicals by a half of their levels at that time. Unluckily, some industries rejected to follow through on the Montreal Protocol. Nevertheless, Du Pont Company was convinced to use replacements for its CFCs chemicals. As opposed to the mandate of the Montreal Protocol, China has a heavily rising CFC manufacture and could have a severe effect to the earth maintenance. There was certain dispute in the world community to phase out CFCs as of 1990. The European Community, nevertheless, was more persuasive. They wanted reduce in CFCs production about a half between 1991 and 1992, about 90 % reductions in 1995-1996, and to end production by 1997 and 2000. In fact, upon the end of 2000, it was not astonishing that such an effort was ineffective. The United States latter set international fund to assist poor nations in handling with the chemicals that deplete the ozone layer.⁹ Unluckily, the result has been far away acceptable.⁹⁻¹³

By the way, ultraviolet B (UVB) ray radiation has made an unhealthy environment that we must defend ourselves from. The injury is usually shaped after frequent contact to UVB over prolonged time. Skin cancer or cataracts can be avoided or significantly reduced by keeping the sunrays from our eyes and skin.

It is noticed that monitoring at the South Pole has shown that the ozone hole has started developing more often since 1991. Data from balloon-borne sensors used to measure ozone values revealed that ozone values were low during the second week of September, a week earlier than the previous years.^{10, 14}

REFLECTION AND CONSIDERATION FROM THE VIEWPOINTS OF BIOETHICS AND ENVIRONMENTAL ETHICS

It appears that with such a frightening state of affairs as aforementioned, the ozone layer hole above Antarctica in 2006 is one of largest in the history, including a size more than three times the territory of Australia. Annually an ozone hole forms over the Antarctica and then closes; and in the year of 2006 the hole was the fourth largest on record. On the other hand, in the year of 2005, in Antarctica, the total size of ice-melting phenomena is the largest in the past 30 years. Its ice-melting size is approximately as large as the area of California State, the U.S. Such an altering worldwide temperatures and ozone-depleting chemicals in the atmosphere have both resulted in the rising area of the hole. Although the influence of chemicals on the ozone layer may be not getting worse, but indeed it is not improving either. It is noted that these chemicals reached a peak in the late 1990s, and we have observed a stable decrease since then. Nevertheless, it has not been enough decrease to have a quantifiable influence on stratospheric ozone over Antarctica, according to this author's most recent published report.⁹

We all have a responsibility to prevent further destruction of our ozone layer. Conversely, global warming threatens to reserve human development, preventing the UN Millennium Development Goals (MDGS) for poverty from being attainable. In fact, the influence of global warming is being sensed most by the global poorest people. Food supply, water source, public hygiene, public health, and people's living are all being injured and weakened. The basic principle of justice in Bioethics has been severely violated! In order to fulfill such

a responsibility to prevent any further damages, we ought to strictly follow the principles of environmental ethics by establishing and enforcing regulations; hopefully we may then be able to prevent the air we breathe from being further contaminated. Therefore, obviously, much more rigid damage-control policies are really and urgently indicated, as per proposal by this author in his 2007 report.⁹

BIOFUEL WITH ITS ADVERSE EFFECTS ON FOOD PRICE

Conversely, food price increases caused by biofuel production will affect and hurt the elderly, the disabled and the homeless on fixed income most of all. The standard definition of biofuel initially is fuel such as methane produced from renewable biological resources such as plant biomass and treated municipal and industrial waste. Nevertheless, subsequently, there is a transferring from corn and soybeans into fuel.

Shifting corn and soybeans into fuels is causing more expensive food prices.

1) THE ARGUMENT IS HOW HIGH THE PRICES ARE SOARING.

The biofuels industry designs on providing record quantity of ethanol in the year of 2008 to reach a permission of the current US energy regulation – in addition, will require a myriad of corn to carry it out. In the mean time, the world food prices are at about top heights. The problem is, how much is the link between those two events? Indeed, it is a subject reaching more inspection when we start the year of 2008 with the minimal grain stockpiles on record, about-record grain prices, along with forecast for still tauter provisions as the world need increased for both food and fuel.

The essential consideration is political unsteadiness over more expensive food prices. In the year of 2007, we witnessed tortilla protests in Mexico, pasta complaints in Italy, and imbalance in Pakistan over bread prices. In the mean time, the soybean prices brought about protests before Indonesia's presidential palace. Conversely, in China, food inflation is a serious issue. Notwithstan-

ding, the link between the growth of biofuels and the more expensive world food prices is not straightforward, with the biofuels industry stating its influence is comparatively minute and biofuel critics stating that ethanol plants are leading to the rising of corn price while the biofuel manufacturers are taking a bite from the soybean crop.

World population growth indeed will require food for an additional 70 million people in 2008, the Earth Policy Institute (EPI) said in a report: "The United States, in a misguided effort to reduce its oil insecurity by converting grain into fuel for cars, is generating global food insecurity on a scale never seen before." Driven more often than not by population expansion, the grain consumption would rise an average of 21 million tons per year from 1990 to 2005, according to the US Department of Agriculture. Requirement for grain to make ethanol rose by 27 million tons in the year of 2007. Bruce Babcock, an economist at Iowa State University's Food and Agricultural Policy Research Institute, says that "Putting [corn-ethanol] land back into food use would have a profound effect on the price of corn". He further estimates that the US will manufacture about 8 billion gallons of ethanol. In order to do that, almost one-fifth of the 80 million acres now committed to corn will be used to produce ethanol.¹⁵

Such a request is adding to increase feed prices for cattle, along with for crops like peas and beans as much less land is committed to growing them. In a counterpoint study by corn growers and the biofuels industry, higher corn prices were noticed to be merely a minute factor in increasing food expenses in general, notwithstanding, and more energy costs for fuel to convey crops and grow them were a larger cause. Bruce Scherr, CEO of Informa Economics, a food and agriculture research and consulting firm based in Memphis, Tenn., USA said in a statement that "This analysis puts to bed the argument that a growing domestic ethanol industry is solely responsible for rising consumer food prices". He further says that the "farm value" of commodity raw materials used in foods accounts for 19 percent of total US food costs, down from 37 percent in the 1973. Obviously, 'higher costs for labor,

packaging, transportation, and energy were a "key driver" behind higher food costs".¹⁵ While higher corn prices cause lower profit margins for livestock and poultry producers, "the statistical evidence does not support a conclusion that there is a strict "food-versus-fuel" trade-off" driving consumer food prices higher, the study said¹⁵. (from the January 28, 2008 edition-<http://www.csmonitor.com/2008/0128/p03s03-usec.html> By Mark Clayton | Staff writer of The Christian Science Monitor)

2] AS GLOBAL FOOD COSTS SOAR, ARE BIOFUELS TO BE BLAMED?

Whatever the reason, prices for grains such as corn and soybeans are elevated. In spite of a record US corn crop in fall last year (2007), corn prices are almost near a record high of about \$5 a bushel in mid-January of 2007. Due to the fact that corn is feedstock, more expensive corn prices may influence food prices. The average price of milk emerged 29 % in 2007, for example, along with eggs 36 percent.

More and more people are ending to the deduction that there is a food-fuel connection. It as well appears that here comes the end of a significant configuration of the history that food prices were in a lasting decrease. Nevertheless, the remarkable cause food prices are raising is fast-spiking requirement for better- feature food such as meat and dairy products by the progressively more rich people of China and India.

Nevertheless, biofuels do play a role in higher grain prices.

Such discoveries are hold up and maintained by an investigation in December, 2007 between 26 and 72 percent by 2020, depending on how aggressive the expansion turns out to be.¹⁵

"The increase in crop prices resulting from expanded biofuel production was accompanied by a net decrease in the availability of ... food" for the world's poor, a study reported.

When food prices rise, naturally, manufacturers universally hold inducement to produce more corn – or wheat that might be used to replace corn.

However, that is still not yet taking place. With obvious attempt to curb food prices and suppress social imbalance-which in order tailors manufacturers' inducement to grow more. For a living example, in January of 2008, Russia this month is looking forward to setting a 40 percent export tax on wheat. Other countries, for instance, Argentina, is as well having a cap for its wheat conveying, in traffic, to another country.

"The price of corn, soybeans, and livestock feed is not going to go down," Babcock says. America's new energy bill "pretty much guarantees that feed costs and land rent are going to stay high."¹⁵

3] IS BIOFUEL PRODUCTION "A CRIME AGAINST HUMANITY"?

Jean Ziegler, a United Nation food specialist called biofuel production "a crime against humanity"¹⁶, while Roland Clift, a senior British scientist called biofuels a political "scam"(<http://www.timesonline.co.uk/tol/news/uk/article1909827.ece>). Biofuel production indeed drives food price up, damages the environment and speeds up global warming.

Roland Clift, professor of environmental technology at Surrey University, U K sits on the scientific advisory council of Defra, David Miliband's environment department. He says that biofuels are scam (Jonathan Leake and Steven Swinford). He advised at a seminar that promoting the use of biofuels is likely to increase greenhouse gas emissions. Clift's comments on June 14, 2007 amount to a direct challenge to Miliband, who has published a strategy promoting biofuels. Clift said: "Biodiesel is a complete scam because in the tropics the growing demand is causing forests to be burnt to make way for palm oil and similar crops.

"We calculate that the land will need to grow biodiesel crops for 70-300 years to compensate for the CO₂ emitted in forest destruction", Clift says. Clift also condemns plans to produce British biodiesel from rapeseed, pointing to research showing the crop generates too much amounts of nitrous oxide – an even more powerful global warming gas than CO₂. The challenge holds as the government provides its backup for biofuels. It will introduce a

requirement for 3% of all fuel sold in 2009 on UK forecourts to come from a renewable origin.

Across the European Union the renewable transport fuels obligation will increase this to 5% by 2010, with the British government pushing for a target of 10%. Miliband wants British farming to diversify into biofuels. "It is an important part of our vision for a diversified farming sector," he said in a recent speech.

Nevertheless, the UK Biomass Strategy published in May 2007 was as well critical of shifting crops into transport fuels, illustrating out that this is the ineffective method of utilizing them. It is maintained that the most effective method is to merely burn them. It is noticeable that Clift is not the only government scientist requesting for a reflection on biofuel manufacture.

U K produced 200m tones of CO₂ annually in transport emissions. Nevertheless, there is still a present tendency that will double by 2045, notwithstanding that the U K government has pledged to decrease transport emissions to about 90m tones by that time. We would need to plant a land area twice the size of Britain to get enough biofuel crops to halve our emissions," said Kemp, professor of engineering at Lancaster University. "The numbers simply do not add up." Both Kemp and Clift paint the picture clear that the soaring global interest in biofuels derives from a "misconception" among politicians that there must be a professional measure to terminate both global warming and climate change.¹⁶

The UK is no longer a sovereign nation. It is a province in the EU, and by the recently agreed Treaty of Lisbon, EU laws take priority. While the UK can provide report after report, the end result is the EU, which has written global warming not merely implied into the constitution, will have the only say on biofuels. Nevertheless, it is amazing that there are still people in the UK who do not understand that reality. In addition, the EU gives every indication that it intends to play on a fiddle while Rome burns in a biofuel conflict.¹⁶

THE ISSUE OF POVERTY

That being discuss, on the tapis of the aforementioned situations, we really do not need to make food so much expensive that many elderly, disabled and homeless people will be unable to feed themselves and their children, not to mention those people in the poor countries.

For example, the one country with poverty that one can think of is Bangladesh where the poverty line is very high. Particularly, Dacca in Bangladesh, Dafour in Africa, and many of the African countries may fit. In Europe, Georgia, which was once under the Soviet Union, together with Cheshchiniaya may also fit. With such a description of poverty, it certainly affects the quality of sleep of the people there. One can as well find them on the map like Sudan, Congo, and Rovert Mogabae's countries!!

That being said, for example, in the Philippines, in the Mindanao region, women cried out 'we boil bananas for our children when food is not available. In some cases, when the Department of Agriculture distributes corn seeds, we cook these seeds instead of planting them. Ironically, they borrow money to acquire these seeds. The cycle of poverty continues, as 'they are unable to pay for these loans.'¹⁷. (<http://siteresources>)

Moreover, some indigenous people felt that they are "gradually losing control over their ancestral lands. In some areas, non-indigenous people get titles to indigenous people's lands in connivance with unscrupulous government representatives."¹⁸ (See p.15 from <http://siteresources.worldbank.org>)

AN EXAMPLE OF THE UTTERED GROAN OF PAIN DUE TO POVERTY

Here is a voice that advises us what it is like to live below the survival level:

If you were to live of the life we live
(Then out of you would poems arise).
You: fetch fulfillment and name the Lord
We: down-gutter degraders of our heritage
You: its sole repository, descendants of the sage.

We: never has paisa to scratch over arise
You: the golden cup of offerings in your bank.
Your bodies flame in sandalwood
Ours you shoved under half-turned sand.
Wouldn't the world change, and fast
If you were forced to live at last
This life that's all we've always had?¹⁹

This indeed is an uttered groan of pain due to poverty, yet we still not even mention the quality of sleep that they have. To strike a balance, in the Philippines, approximately from 16 to 27 per cent of the population would remain poor even in 2010 depending on distributional assumptions. Therefore, the Philippine will have to move rapidly if poverty is to be reduced perceptibly (Draft, Philippines poverty assessment).²⁰

ASSESSMENT WITH PRINCIPLES OF BIOETHICS AND ENVIRONMENTAL ETHICS

Respecting the many elderly, disabled and homeless people without raising the food price to damage them is sheltered by the principles of non-maleficence. Conversely, the central argument of promoting their interests is covered by the principle of beneficence in bioethics.

As to the issue of respect, it may be largely culturally determined. In some cultures we might show respect for the dead by cremating their bodies; in others it might be that cremation is highly disrespectful and that burial is the only way to display proper respect.

This illustrates that even though there may be a general moral requirement to display respect, the content of that requirement is (at least largely) culturally oriented and determined.

That being said, on the tapis of the principle of justice, the following aspects merit our attention. Adequate education and proper recommendation on diet, night activities, life style and acceptable levels of nutrition and health risk factors for the population in general and for those many elderly, disabled and homeless people are all important.

For example, it may require considerable modification in Asia from those factors employed in US, Europe, North America, Australia etc. In light of the various multiplicities of countries in Asia, a solitary set of Asian application appears inadequate. Education of the risk of CFCs, CO₂, smoking, alcoholic consumption, sleep hygiene,²¹ obesity, and atherosclerotic jeopardy, along with the effort of prophylactic measures and prevention, for instance, regulating hypertension may be required. Adequate epidemiological data will contribute to the establishment of the proper approach.

Conversely, the inequality of providing public education and health services for elderly, disabled and homeless people deserve our special consideration. It is worthy to notice that adult continuing health education to one group, while denying the same education to the other has become a source of conflict and tension, particularly in developing regions.

For example, according to the principle of justice in bioethics along with the criterion of equity defined in most countries, the tax revenue allocation for health-care expenditures and social welfare at times appears to be adequate in most countries. Notwithstanding, the seeming adequacy of tax revenue allocation for tobacco bans and health education requires further assessment. So do-

es for the industry and humans that produce harms to our earth.²²⁻³⁶

Policy-makers must be aware of the lesson of "Animal farm" (1945) – a satiric novel by George Orwell. Essentially, animals take over a farm to escape human tyranny, but the pigs treat the other animals worse than the people did. A famous quotation from that book is "All animals are equal, but some animals are more equal than others"³⁷, a proclamation by the pigs that control the government in Animal Farm. The sentence quoted here is a comment on the hypocrisy of communism that proclaims the absolute equality of their citizens but give power and privileges to small elite. All of the aforementioned reflection and consideration in the principles of both bioethics and environmental ethics are essential when we are dealing with issues of overpopulation, abuse of our earth and global poverty – lessons that all people in both developed and developing countries should learn from each. With animal rights and /or vegetarianism included on the tapis, the more we contemplating about these topics as the title of this article, this author realizes that it is a necessary and timely book with a holistic worldview for healing our planet.

The content of this essay will be found in Chapter II of a forthcoming book entitled Life, Love and Bioethics (in press)

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