

# How Valuable is Energy Shift for Us? For the Integration of International Value Discussion

*The Complex Issues surrounding  
the Use of Renewable Energy Resources: A Moral Appraisal*

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## **Introduction:**

One of the biggest challenges of our century is making renewable energy accessible for everyone. Energy plays a vital role in human development. According to the International Energy Association, with regard to important energy services, there are still 1.4 billion people who do not have access to electricity and about 2.7 billion people in developing countries who rely for cooking primarily on biomass.<sup>1</sup> The traditional use of biomass as primary cooking fuel includes wood, charcoal, tree leaves, crop residues and animal dung. Using such inefficient burning methods releases many pollutants but primarily carbon monoxide into the atmosphere. This leads to serious ailments including chronic obstructive pulmonary disease and even death. Energy poverty which is the result of inefficient energy practice is an obstacle to human and economic development.<sup>2</sup>

In order to provide universal access to modern energy sources to the people, various finance resources will have to be tapped. Improved high efficiency stoves and greater energy conversion efficiency would result in emissions reductions. Further, public awareness campaigns regarding the health and other benefits of clean cooking practices will have to be undertaken. India, for example, generates 68.8 million tonnes of trash a year. Besides, more than 6,000 tonnes of plastic waste is littered and uncollected daily, adding to the soaring heaps of non-bio-degradable trash.<sup>3</sup> This paper will explore the complex issues surrounding the use of renewable Energy Resources and then provide a moral appraisal based on the teaching of the Church.

**Access to Sustainable Energy is essential to reduce poverty and enhance economic growth:**

The Compendium of the Social Doctrine of the Church clearly states that “*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*. The present environmental crisis affects those who are poorest in a particular way”.<sup>4</sup> About 1.6 billion people in the world have no access to electricity. 2.4 billion people still use wood, charcoal or dung as their principal source of energy for cooking and heating. This fuel is taking peoples’ lives. Two and a half million women and children die each year from the indoor pollution from cooking fires”.<sup>5</sup> The World Health Organization states that approximately 2.5 million women and young children in developing countries die prematurely each year from breathing the fumes from indoor biomass stoves.<sup>6</sup>

Without adequate energy, the poor will continue to remain poor and the sick will be deprived of essential services. Poor people are most affected by global warming as they do not have the resources to cope up with climate change crisis. It is a known fact that nursing homes, hospitals need electricity for essential services such as storing vaccines, medicines and carrying out various operations and medical procedures. Many people still spend hours daily to carry water and collect firewood since they have outdated coking stoves and no proper water pumps. Hence many people are exposed to indoor air pollution. For energy supply to be sustainable, they must at least fulfill the basic criteria. It must be “clean; safe; efficient; reliable; affordable; available for the long term; not obstructive; not discriminating”.<sup>7</sup> There is an urgent need today to prevent deforestation and to develop energy initiatives and encouraging use of renewable energy sources such as hydro power, wind power, biomass, solar energy (heating and photovoltaic) and geothermal energy. Such methods will have a positive impact on climate change.

**Current cooking practices and health consequences**

72% of the total population of India and 90% in rural areas use biomass for cooking. Everyday millions of Indian women spend a lot of time cooking their rice, dal and

curry in a traditional clay cook stove called a chulha. Cooking in the pot adds flavor to the food but the smoke burns their eyes and blackens the pots used. Veerabhadran Ramanathan, a climatologist professor at the University of California, San Diego, says the black carbon (soot) from the smoke contributes to anthropogenic climate change.<sup>8</sup> Providing a clean cooking energy option would reduce the products of incomplete combustion and help combat climate change.<sup>9</sup> Hence, the Indian Ministry of New and Renewable Energy (MNRE) launched a Special project on Cookstove and a National Biomass Cookstove Initiative (NBCI) at New Delhi in December 2009 to enhance the use of biomass cookstoves. The World Health Organization (WHO) clearly stated in the 2006 report *Fuel for Life: Household Energy and Health* that “day in and day out, and for hours at a time, women and their small children breathe in amounts of smoke equivalent to consuming two packs of cigarettes per day”. The world’s deadliest pollution does not come from factories billowing smoke, but comes from within people’s own homes. According to WHO risk factor estimates accompanying the report *The Global Burden of Disease*, breathing the smoke from traditional cook stoves and open fires kills nearly two million people each year and sickens millions, according to the World Health Organization (WHO).<sup>10</sup>

### **Waste Management (including radioactive waste)**

On the one hand, the rapid growth of technological and industrial processes has led to the generation of electricity, the production of chemicals for the protection of crops and curing diseases and the creation of nuclear power. However, on the other hand they have negative impact on health and environment. Many of these processes of technology lead to the production of waste which not only contain toxic elements that are unrecyclable, harmful and hazardous but have the long term consequences of depleting the ozone layer of the atmosphere and impacting climate changes. Further, these negative consequences affect not only the present generation but also the future generations to come.<sup>11</sup> What is needed most today is the formulation and implementation of environmental protection policies to curb the negative effects of the technological and industrial development. We also need an effective and ethical waste management policy that not only protects our future generations from harm but also gives them at least the same level of safety that our generation has today, if not more. The disposal of waste in the air and water should be subject to strict

control by the State. In this regard it is important to keep the principle in mind, viz, that current generations producing wastes should bear, to the extent possible, the responsibility to manage it.<sup>12</sup> We are also responsible for our future generations and have no right to pass on risks and hazards to them.<sup>13</sup> The *Compendium on the Social Doctrine of the Church* clearly states that “scientists and technicians involved in the field of biotechnology are called to work intelligently and with perseverance in seeking the best solutions to the serious and urgent problems of food supply and health care. They must not forget that their activity concerns material - both living and inanimate - that belongs to the patrimony of humanity and is destined also to future generations”.<sup>14</sup> In this regard, scientists are to employ their energies and abilities in research that is guided by a clear and honest conscience.<sup>15</sup>

### **Abolition of nuclear weapons**

Last year the United Nations General Assembly announced the starting of an International Day for the Total Elimination of Nuclear Weapons. Hence, this year on 26 September 2014 the very first Nuclear Abolition Day was organized by ICAN (International Campaign to Abolish Nuclear Weapons) to foster public awareness about the grave nuclear threat to humanity and in particular to world peace. The International Committee of the Red Cross aptly stated that “*Nuclear weapons are unique in their destructive power, in the unspeakable human suffering they cause, in the impossibility of controlling their effects in space and time, and in the threat they pose to the environment, to future generations, and indeed to the survival of humanity*”.<sup>16</sup> This year to mark the 69<sup>th</sup> anniversary of August 1945 Hiroshima and Nagasaki bombings various events were held worldwide to press for peace. The production, testing and use of nuclear weapons not only leads to unimaginable consequences, including immense suffering and death but also results in long term environmental harm. Perhaps the only devices that can destroy all complex forms of life on earth are nuclear weapons.<sup>17</sup> The *Compendium of the Social Doctrine of the Church* clearly teaches us that “*arms of mass destruction - whether biological, chemical or nuclear - represent a particularly serious threat. Those who possess them have an enormous responsibility before God and all of humanity*”.<sup>18</sup> Further, “the principle of the non-proliferation of nuclear arms, together with measures of nuclear disarmament and the prohibition of nuclear tests, are intimately

interconnected objectives that must be met as soon as possible by means of effective controls at the international level”.<sup>19</sup>

## **Church Teaching on Environmental Stewardship and Use of Renewable Energy**

The environmental crisis is an invitation to us as to how we use and share the goods of the earth, what we pass on to future generations, and how we live in harmony with God’s creation. We have just examined some of the many negative effects of environmental degradation. Poor people are the most disadvantaged. Many of them suffer from loss of soil fertility, pollution of rivers and destruction of forest resources. We have also seen the link between a depleting ecology and poverty. Since the natural resources are limited and some of them are not renewable, economic development must consider “the need to respect the integrity and the cycles of nature”.<sup>20</sup> At the 25<sup>th</sup> General Conference of the Food and Agricultural Organization of the United Nations (FAO), Pope John Paul II emphasized that every economic activity making use of natural resources must also be concerned with safeguarding the environment and should foresee the costs involved, which are an essential element of the actual cost of economic activity”.<sup>21</sup>

In the Social Encyclical *Sollicitudo Rei Socialis*, Pope John Paul II noted that the present way of the exploitation of resources is seriously compromising the availability of some natural resources for both the present and the future.<sup>22</sup> The *Compendium of the Social Doctrine of the Church* clearly states that “solutions to the ecological problem require that economic activity respect the environment to a greater degree, reconciling the needs of economic development with those of environmental protection...In this context, one considers relations between human activity and climate change which, given their extreme complexity, must be opportunely and constantly monitored at the scientific, political and juridical, national and international levels”.<sup>23</sup>

In the beginning, “God looked at everything he had made, and he found it very good” (Gen 1:31). The *Catechism of the Catholic Church* has emphasized the fact that each of us humans are specially created by God in his image and likeness: “*Man is the summit of the Creator’s work, as the inspired account expresses by*

clearly distinguishing the creation of man from that of the other creatures.”<sup>24</sup> The *Catechism* goes on to state that “the order and harmony of the created world results from the diversity of beings and from the relationships which exist among them. Man discovers them progressively as the laws of nature. They call forth the admiration of scholars. The beauty of creation reflects the infinite beauty of the Creator and ought to inspire the respect and submission of man’s intellect and will”.<sup>25</sup> The Second Vatican Council declared that Scripture enables us to “recognize the inner nature, the value, and the ordering of the whole of creation to the praise of God”.<sup>26</sup> In the words of the Psalmist:

When I see the heavens, the work of your hands,  
the moon and the stars which you arranged,  
what is man that you should keep him in mind,  
mortal man that you care for him?  
Yet you have made him little less than a god,  
with glory and honor you crowned him,  
gave him power over the works of your hand,  
put all things under his feet.  
All of them, sheep and cattle,  
yes, even the savage beasts—  
birds of the air, and fish  
that make their way through the waters. (Ps. 8:3—8)

Saint Francis of Assisi, patron saint of those who promote ecology, encouraged his followers and all people to contemplate creation and to praise God “in all creatures and from all creatures”.<sup>27</sup> Pope Francis, in his homily at the Inaugural Mass of his Petrine Ministry, encouraged each of us to protect creation and the beauty of the created world. He said that we must respect our environment and show our loving concern for each and every person, especially children, the elderly and those in need.<sup>28</sup> In *Centesimus Annus*, Saint John Paul II aptly remarked that “too little effort is made to safeguard the moral conditions for an authentic ‘human ecology’. Not only has God given the earth to man, who must use it with respect for the original good purpose for which it was given, but man too is God’s gift to man. He must therefore respect the natural and moral structure with which he has been endowed”.<sup>29</sup> In Catholic Social Teaching, the principle of the universal common good is necessary for the establishing of an environmental ethic. In “The Ecological Crisis: A Common

Responsibility”, his 1990 *World Day of Peace Message*, Pope John Paul II wrote, “Today the ecological crisis has assumed such proportions as to be the responsibility of everyone. . . . Its various aspects demonstrate the need for concerted efforts aimed at establishing the duties and obligations that belong to individuals, peoples, States and the international community”.<sup>30</sup>

I would like to conclude with the words of the Compendium of the Social Doctrine of the Church: “*Serious ecological problems call for an effective change of mentality leading to the adoption of new lifestyles,*[1012] “in which the quest for truth, beauty, goodness and communion with others for the sake of the common good are the factors that determine consumer choices, savings and investments”. These lifestyles should be inspired by sobriety, temperance, and self-discipline at both the individual and social levels. There is a need to break with the logic of mere consumption and promote forms of agricultural and industrial production that respect the order of creation and satisfy the basic human needs of all”.<sup>31</sup> “Modern ecological problems are of a planetary dimension and can be effectively resolved only through international cooperation capable of guaranteeing greater coordination in the use of the earth’s resources”.<sup>32</sup>

#### (Footnotes)

- <sup>1</sup> International Energy Association, the United Nations Development Programme and the United Nations Industrial Development Organization, *Energy Poverty. How to make modern energy access universal? Special early excerpt of the World Energy Outlook 2010 for the UN General Assembly on the Millennium Development Goals*, Paris Cedex, 2010, page 7 and 22.
- <sup>2</sup> Pollution Indoors in ‘The Hindu’, e paper, 22 December 2012.
- <sup>3</sup> Amulya Gopalkrishnan, Can Modi deliver a Clean India? In *India Today*, Vol. XXXIX, no. 41, 13 October 2014, pg. 23.
- <sup>4</sup> Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church*, no. 482.
- <sup>5</sup> ITDG, IT Consultants, IT Power and ITDG Latin America, *Sustainable Energy for Poverty Reduction: An Action Plan*. Web: <https://practicalaction.org/docs/advocacy/itdg-greenpeace-study.pdf>
- <sup>6</sup> UNDP, UNDESA and World Energy Council (2002) quoted in the International Energy Agency’s *World Energy Outlook 2000*. See also <http://www.allafrica.com>

- 7 Herman Damveld, Robert Jan Van den Berg, Nuclear Waste and Nuclear Ethics, Social and ethical Aspects of the retrievable storage of Nuclear Waste, January 2000.
- 8 Tina Adler, Better Burning, Better Breathing: Improving Health with Cleaner Cook Stoves in Environment Health Perspectives, Mar 2010; 118(3): A124–A129.
- 9 Government of India, **Ministry of New and Renewable Energy, National Biomass Cookstoves Programme (NBCP), Sept 2014.**
- 10 Larisa Brown and Michelle Nichols, Smoke from family stoves kill two million people a year in *The Independent*, 10 October 2014.
- 11 Nuclear Energy Agency (within the Organization for Economic Co-operation and Development (OECD), The Environmental and Ethical Basis of Geological Disposal of Long-Lived Radioactive Wastes, Paris. See web: <https://www.oecd-neo.org/.../ethical-environmental-considerations.html>.
- 12 US National Research Council. The Disposal of Radioactive Waste on Land. National Academy of Sciences, National Research Council, Washington, September 1957.
- 13 Cfr. Pontifical Council for Justice and Peace, Compendium on the Social Doctrine of the Church, no. 467.
- 14 Pontifical Council for Justice and Peace, Compendium on the Social Doctrine of the Church, no. 477.
- 15 Cf. John Paul II, Address to the Pontifical Academy of Sciences (23 October 1982): *Insegnamenti di Giovanni Paolo II*, V, 3 (1982), 889-893. John Paul II, Address to the participants in a convention sponsored by the National Academy of Sciences, for the bicentenary of its foundation (21 September 1982): *Insegnamenti di Giovanni Paolo II*, V, 3 (1982), 511-515.
- 16 International Committee of the Red Cross, 2010.
- 17 See <http://www.icanw.org/why-a-ban/arguments-for-a-ban/>
- 18 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, no. 509. Also Cf. Second Vatican Ecumenical Council, Pastoral Constitution *Gaudium et Spes*, 80: AAS 58 (1966), 1104; *Catechism of the Catholic Church*, 2314; John Paul II, Message for the 1986 World Day of Peace, 2: AAS 78 (1986), 280.
- 19 Pontifical Council for Justice and Peace, Compendium of the Social Doctrine of the Church, no. 509. Also Cf. John Paul II, Address to the Diplomatic Corps (13 January 1996), 7: *L'Osservatore Romano*, English edition, 17 January 1996, p. 2.
- 20 John Paul II, Encyclical Letter *Sollicitudo Rei Socialis*, 26: AAS 80 (1988), 546.
- 21 Pope John Paul II, Address to the Twenty-Fifth General Conference of FAO (16 November 1989), 8: AAS 82 (1990), 673.
- 22 Cf. John Paul II, Encyclical Letter *Sollicitudo Rei Socialis*, 34: AAS 80 (1988), 559-560.



- 23 Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church*, no. 470.
- 24 Catechism of the Catholic Church, no. 343.
- 25 Catechism of the Catholic Church, no. 341.
- 26 The Second Vatican Council, *Lumen Gentium* (November 21, 1964), 36.2.
- 27 Saint Bonaventure, *Legenda Major* 4.3. See also Omar Englebert, *Saint Francis of Assisi: A Biography* (Chicago: Franciscan Herald Press, 1965).
- 28 Pope Francis, *Homily at the Inaugural Mass of his Petrine Ministry*, 19 March 2013.
- 29 Pope John Paul II, Encyclical Letter *Centesimus Annus*, no. 38.
- 30 Pope John Paul II, 1990 World Day of Peace Message.
- 31 Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church*, no. 486.
- 32 Pontifical Council for Justice and Peace, *Compendium of the Social Doctrine of the Church*, no. 481.