

NORMS OF SUSTAINABLE DEVELOPMENT

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Presented as a new concept at the World Commission on Environment and Development¹ in March 1987 and adopted by the U. N. General Assembly in December of that year as its central guiding principle, sustainable development is defined as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” [UNECE, p.1; A/RES/42/187, p. 1]. Five years later the United Nations reached agreement on 27 working principles to protect the environment and promote development. The U.N. has scheduled another conference on sustainable development for June 2012 [UNCSD, p. 1], making a review of the 27 working principles timely and instructive.

The first of these 27 principles puts human being “at the centre of concerns for sustainable development” [A/CONF. 151/26 (Vol. I), pp. 1-4]. Our own definition of sustainable development embraces the U.N.’s and expands it as follows: sustainable development subordinates the production of goods and services to the further development of human beings as persons with a sacred dignity and a fundamental worth beyond measure.

In the following, we address two questions. First, what norms regulate sustainable development and what critical values express those norms in measurable form? Our discussion of this question is modeled after Becker’s monograph on benefit adequacy in unemployment insurance. Becker is especially instructive because benefit adequacy and sustainable development are alike in that both are defined in ways that necessarily reflect the values of those who do the defining. Both, in other words, are normative issues and for that reason being explicit and clear about the norms one is using is critical to any attempt to bring some insight to the discussion.²

Second, how do the U.N.’s principles – throughout we refer to them as norms of sustainable development – compare to Catholic social teaching on the environment and development? For this purpose, we use the *Compendium of the Social Doctrine of the Church* that was prepared by the Pontifical Council for Justice and Peace at the request of John Paul II for “a concise and complete overview of the Church’s social teaching” [*Compendium*, p.xxi]. In addition, we cite several papal documents directly when the *Compendium* seems lacking. We make no effort herein to determine the extent to which either the papal documents might have influenced the U.N. norms or those norms might have influenced the documents.

I. NORMS AND CRITERIA OF SUSTAINABLE DEVELOPMENT

Sustainable development depends on production and production, in turn, depends on the economic agent as its efficient cause. In that sense, sustainable development is properly considered contingent being and as with all contingent being is constituted by an actuating principle and a limiting principle [Renard, pp. 7-15, and Joseph Becker, p. 11].³

¹ Known as the Brundtland Commission.

² This part draws heavily from the author’s 2011 article in the *Forum for Social Economics*

³ The need for limits was recognized by John Paul II in his and the ecumenical patriarch of Venice’s declaration on environmental ethics in 2002 [John Paul 2002, ¶ 1].

Neoclassical economics identifies the actuating principle as human wants, and the limiting principle as the resources available to satisfy those wants. The two converge in the market system.

Personalist economics identifies the actuating principle as the needs and wants of the human body and spirit, and the limiting principle as the resources available to meet those needs and satisfy those wants subject to the secondary limit that those resources are utilized in ways that minimize their depletion and any damage to the natural environment. The two principles converge in the market system that may be constrained by whatever economic *institutions* are required to assure that everything possible is done to meet human needs and satisfy human wants adequately and to use resources wisely. In its strict libertarian form, neoclassical economics argues that the *law of nature* alone sets secondary limits through the invisible hand; economic institutions are unnecessary. It is instructive to elaborate further on both principles and the effects they intend to achieve or avoid. More on personalist economics is available at www.mayoresearch.org.

Actuating Principle: Positive Effects.

The needs of the body include sustenance and rest. The needs of the spirit include a need to know and understand truth, goodness, and beauty, and a need for opportunities to develop and use one's creative talents, skills, and energies. Humans also need to associate with like-minded others, to experience a sense of being included, of being valued by the group(s) to which they belong.

In a market economy, needs in general are provisioned by goods and services that are produced and sold for private or common use. Private goods and services are necessary because humans are meant to live separate lives as unique individuals (as Many). Common goods and services are necessary because humans also are meant to live together in community (as One). Goods and services used in common (often referred to simply as the common good) may be procured through private-group or public-group activity. For example, home schooling is based on the premise that children learn best in a teaching/learning environment that separates them from their peers. Private schools, and public schools as well, proceed from the premise that children learn best in the company of their peers. Whether human need is met individually or collectively, and notwithstanding neoclassical doctrine about restricting economic analysis to the means that are employed to achieve certain ends in economic affairs but not the ends themselves, sustainable development obviously is a matter of meeting that need.

One way to express this norm in measurable form is to construct it on the foundation of information on poverty. For example, does a specific development scheme contribute to a reduction in the number of poor persons/families or in the rate of poverty? Or, does a given scheme reduce the number of poor persons/families or the poverty rate to some critical value? Constructing on the basis of the first question is useful because it relieves the analyst of the task of stipulating in advance a given number or rate that identifies acceptable performance regarding sustainability. Constructing on the basis of the second question is instructive because it ties acceptable performance to some target number or rate which becomes truly significant when there is sufficient social acceptance of that target.

Though important, the needs of future generations are clearly secondary in the sense that the present generation consists of living human beings whose basic needs cannot be subordinated to the needs of future generations that at the moment consist of humans not yet alive. To do otherwise means subordinating human actualities to human potentialities, putting the supposed and uncertain needs of the future ahead of the real and certain needs of the present. In the extreme, doing otherwise means starving the present to feed the future.

Figure 1 presents these two positive effects (norms) and suggests several person-centered standards of performance for sustainable development, including two proxies.

Limiting Principle: Negative Effects.

Environmental science continues to discover various ways in which nature itself sets limits in the sense that living things such as plants and animals are able to physically alter their environment. Predators, for example, *instinctively* reduce the population of their prey as a source of food that has the effect of controlling the animal population at a level that is more nearly sustainable. Forest fires triggered by lightning set limits on the timber that can be grown and harvested from forests.

Only humans, however, are capable of setting limits *knowingly*. Some of the limits set by humans strictly speaking are necessary for survival. Personalist economics defends the imposition of limits on the use of toxins and asbestos, for example, because left to the market alone human bodily health and well being are not adequately protected. Other limits justified by personalist economics may relate more directly to a need of the human spirit such as limiting residential development in order to protect a pristine natural view. Critical values must be developed that render in measurable form the need to be addressed and therefore where the limits are to be drawn. Setting and enforcing those criteria -- especially as regards to discharging pollutants into the air, water, and soil -- are at the very core of the work of environmental protection. Those criteria will change with greater human understanding and therefore cannot be fixed once for all.

As with the actuating principle, the problem of developing, setting, and enforcing those limits is an aspect of the One-Many dichotomy. Should we act as Many through the market system or as One through groups? If we decide to act as One, should it be through private groups such as trade associations or through public agencies? And if we decide to act as the public One, should it be through local, state, regional, or federal governing bodies?

The principle of subsidiarity helps locate where in the social order institutions should be established to develop and enforce the limits. Larger more powerful institutions such as federal and state governments should not usurp the functions of smaller weaker institutions such trade and professional associations. Rather the larger ones should provide the assistance that smaller ones require in order to function effectively. This principle supports the decentralization of group decision-making, giving preference to private-group as opposed to public-group decision-making, and thereby reinforces the democratic principle.

In the case of sustainable development the group at issue is every living thing that depends on planet Earth for survival. The duty of every human being is to use the Earth's natural resources only to the extent necessary, in ways that protect the natural environment, and whenever necessary to contribute to the replenishing of those resources to the extent humanly possible. This duty bears more heavily on persons in developed countries because they use disproportionately more of the Earth's resources than do others and thereby derive greater benefits from the use of those resources.

As members of the human family, human beings have a duty in contributive justice to maintain and support a life-giving, life-sustaining environment. To ignore or dismiss this duty threatens all living things and in the end is self-destructive. Thus from the perspective of its own limiting principle sustainable development is a moral issue.

Carrying capacity, by which we mean Earth's capacity for absorbing contamination without threatening the very existence of living creatures who depend on the environment for their very survival, is the first and foremost norm constraining economic development. Exceeding this limit by ill-advised economic development schemes or unfettered market activity, though such schemes and activity may appear to serve human need and may even be intended to serve that purpose, has exactly the opposite effect. Put differently, development that threatens human survival is not sustainable.

In like manner, utilization of natural resources especially vital nonrenewable resources to meet the needs of the current generation has to be constrained in order to provide adequately for the needs of future generations, *even when the carrying-capacity limit has been respected*. Here sustainable development is not a matter of threatening human survival but of acting as a responsible steward.

Additionally, primary limits are imposed on economic development by the effects that it has on natural resources, especially nonrenewable resources, and the extent to which development contributes to contamination of the air, soil, and water. One way in which these undesirable effects are limited is by government-issued licenses that specify a maximum amount that can be discharged into the environment with violators subject to shutdown and fines for exceeding that limit.

Another way to limit undesirable effects is by environmental impact studies that assess the extent of resource depletion and environmental contamination. Licensing addresses the ecological/environmental problem after the fact. Impact studies deal with it before the fact.

Secondary limits arise from the problem of meeting human need that forces us to decide whether to act as separate individuals or as a community. Thus sustainable development involves deciding when to act as the Many and when as the One. Development, therefore, of necessity is subject to political limits.

Though the political norm could have been stated as a positive norm that justifies acting as the One (principally through public group intervention), Western culture has

demonstrated a strong preference for acting as the Many and insists on a subsidiary role for the One. Roughly 15 years ago, the European Union affirmed this principle as follows: “The principle that decisions should be taken as close to the citizen as possible has become an overriding one in the last few years” [European Communities, p. 14].

Sustainable development means limiting government intervention to those situations where private-individual (the market) and private-collective decision-making processes (bodies intermediate between the individual and government such as water conservation commissions and emergency response compacts) simply do not provide adequately for the needs of current and future generations.

What is to be done, however, when a small, well-organized community thwarts the will of the larger community? To illustrate, in the city of Monroe, Louisiana a residential community has blocked building a bridge across the Ouachita River that would significantly improve the flow of traffic and commerce between Monroe and its sister city West Monroe on grounds that the bridge would disrupt the tranquility of their community. To date, nothing has been done to site the bridge elsewhere or to deal with the concerns of the resistant residential community. In the meantime, economic development in Monroe is arrested, white flight continues, and the city government is hard pressed to provide needed services.

Clearly, a political remedy is the only answer to the question as to when is it justified to override the concerns of the minority in the name of areawide development. The One acting through the parish (county) governing body must decide ultimately where to impose the limit, where the greater good lies: in the tranquility of the minority community or the economic development of the larger community.

Tertiary limits originate in the negative impact that sustainable development has on production and employment and the destructive dimension of innovational activity undertaken as a part of meeting the need of the human spirit for creative opportunities.

Figure 1 presents these three negative effects (norms) and suggests a few person-centered standards of performance, including three proxies.

FIGURE 1. SUSTAINABLE DEVELOPMENT: NORMS & PERFORMANCE STANDARDS

<u>Actuating Principle: Positive Effects to be Achieved</u>		<u>Person-Centered Standard of Performance</u>
1. Primary:	Need of current generation a. needs of the body b. needs of the spirit	nbr of poor persons / poverty rate nbr of jobless persons / jobless rate net outmigration nbr of new business establishments (proxy) cyclical fluctuations: income/employment (proxy) nbr of persons filing for bankruptcy protection
2. Secondary:	Need of future generations a. needs of the body b. needs of the spirit	
 <u>Limiting Principle: Negative Effects to be Avoided</u>		
1. Primary:	Ecological/Environmental a. carrying capacity b. natural resources	nbr of firms not in compliance (proxy) nbr of persons engaged in recycling / reprocessing nbr of available landfill sites (proxy)
2. Secondary: Political	a. subsidiary role - government b. minority/majority rights	voter turnout in local elections participation in United Way
3. Tertiary:	Economic a. loss of employment b. destructive innovation	nbr of lost jobs nbr of lost business establishments (proxy)

II. U.N. NORMS OF SUSTAINABLE DEVELOPMENT AND CATHOLIC SOCIAL TEACHING

In the following, the 27 U.N. norms of sustainable development are cited, one by one, followed by the relevant passages relating to Catholic social teaching from the *Compendium of the Social Doctrine of the Church* that are identified in italics and by section number. The section number in turn leads the interested reader to the papal source documents. We do not identify those source documents herein. Unless absolutely necessary, we have avoided linking the same section in the *Compendium* to more than one of the U.N.'s 27 norms. As stated earlier, we cite several papal documents directly when the *Compendium* seems lacking.

The *Compendium* is a secondary source of information in which the editors have employed some judgment regarding the appropriate primary source material to include and have exercised considerable editorial license to add their own interpretation to the papal documents cited. The careful reader is urged to use the *Compendium* to identify the primary sources.

1. Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Every political, economic, social, scientific and cultural programme must be inspired by the awareness of the primacy of each human being over society. [Comp. §132].

A correct understanding of the environment prevents the utilitarian reduction of nature to a mere object to be manipulated and exploited. At the same time, it must not absolutize nature and place it above the dignity of the human person himself. [Comp. §463].

If humanity today succeeds in combining the new scientific capacities with a strong ethical dimension, it will certainly be able to promote the environment as a home and a resource for man and for all men, and will be able 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. [Comp. §465].

[Indigenous] peoples offer an example of a life lived in harmony with the environment that they have come to know well and preserve. Their extraordinary experience, which is an irreplaceable resource for all humanity, runs the risk of being lost together with the environment from which they originate. [Comp. §471].

2. States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

The Magisterium recognizes the importance of national sovereignty, understood above all as an expression of the freedom that must govern relations between States. Sovereignty represents the subjectivity of a nation, in the political, economic, social, and even cultural sense. The cultural dimension takes on particular importance as a source of strength in resisting acts of aggression or forms of domination that have repercussions on a country's

freedom. Culture constitutes the guarantee for the preservation of the identity of a people and expresses and promotes its spiritual sovereignty.

National sovereignty is not, however, absolute. Nations can freely renounce the exercise of their rights in view of a common goal, in the awareness that they form a “family of nations” where mutual trust, support and respect must prevail. In this perspective, special attention should be given to the fact that there is still no international agreement that adequately addresses “the rights of nations,” the preparation of which could profitably deal with questions concerning justice and freedom in today’s world. [Comp. §435].

3. The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Responsibility for the environment, the common heritage of mankind, extends not only to present needs but also to those of the future ... This is a responsibility that present generations have towards those of the future, a responsibility that also concerns individual States and the international community. [Comp. §467].

4. In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Programs of economic development must carefully consider “the need to respect the integrity and the cycles of nature” because natural resources are limited and some are not renewable. The present rhythm of exploitation is seriously compromising the availability of some natural resources for both the present and the future. 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. 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.” [Comp. §470].

5. All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

... the preferential option for the poor should be reaffirmed in all its force. ... given the worldwide dimension which the social question has assumed, this love of the preference for the poor, and the decisions which it inspires in us, cannot but embrace the immense multitudes of the hungry, the needy, the homeless, those without health care and, above all, those without hope of a better future. [Comp. §182].

Poverty poses a dramatic problem of justice; in its various forms and with its various effects, it is characterized by an unequal growth that does not recognize the “equal right of all people to take their seat ‘at the table of the common banquet’.” [Comp. §449].

It is undoubtedly an act of love, the work of mercy by which one responds here and now to a real and impelling need of one’s neighbors, but it is an equally indispensable act of love to strive to organize and structure society so that one’s neighbor will not find himself in poverty, above all when this becomes a situation within which an immense number of people and entire populations must struggle, and when it takes on the proportions of a true worldwide social issue. [Comp. §208].

6. The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all nations.

As globalization spreads it must be accompanied by an ever more mature awareness on the part of different organizations of civil society of the new tasks to which they are called on a worldwide level. Thanks also to resolute action taken by these organizations, it will be possible to place the present process of economic and financial growth taking place on a global scale within a framework that guarantees an effective respect of human rights and of the rights of peoples, as well as an equitable distribution of resources within every country and between different countries: “freedom of trade is fair only when it is in accord with the demands of justice.” [Comp. §366; see also §208 as cited under norm 5 above].

7. States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth’s ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

The spirit of international cooperation requires that, beyond the strict market mentality, there should be an awareness of the duty to solidarity, justice, and universal charity. In fact, there exists “something which is due to man because he is man, by reason of his lofty dignity.” Cooperation is the path to which the entire international community should be committed, “according to an adequate notion of the common good in relation to the whole human family.” Many positive results flow from this; for example, an increase of confidence in the potential of poor people and therefore of poor countries and an equitable distribution of goods. [Comp. §448].

... technological innovations can penetrate and spread within a specific community only if the potential beneficiaries have a minimum level of knowledge and financial resources. It is evident that, because of the great disparities between countries regarding access to technical and scientific knowledge and to the most recent products of technology, the process of globalization ends up increasing rather than decreasing the inequalities between countries in terms of economic and social development. Given the nature of the current dynamics, the free circulation of capital is not of itself sufficient to close the gap between developing countries and the more advanced countries. [Comp. §363].

8. To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

The close link that exists between the development of the poorest countries, demographic changes and a sustainable use of the environment must not become a pretext for political and economic choices that are at variance with the dignity of the human person. [Comp. §483].

9. States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and

technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Today more than ever, international trade – if properly oriented – promotes development and can create new employment possibilities and provide useful resources. The Church’s social doctrine has time and again called attention to aberrations in the system of international trade, which often, owing to protectionist policies, discriminates against products coming from poorer countries and hinders the growth of industrial activities and the transfer of technology to these countries. [Comp. §364].

10. Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

“Just as it is gravely wrong to take from individuals what they can accomplish by their own initiative and industry and give it to the community, so also it is an injustice and at the same time a grave evil and disturbance of right order to assign to a greater or higher association what lesser and subordinate organizations can do. For every social activity ought of its very nature to furnish help to the members of the body social, and never destroy or absorb them.”

On the basis of this principle, all societies of a superior order must adopt attitudes of help (“subsidium”) – therefore of support, promotion, development – with respect to lower-order societies. In this way, intermediate social entities can properly perform the functions that fall to them without being required to hand them over unjustly to other social entities of a higher level, by which they would end up being absorbed and substituted, in the end seeing themselves denied their dignity and essential place.

Subsidiarity, understood in the positive sense as economic, institutional, or juridical assistance offered to lesser social entities, entails a corresponding series of negative implications that require the State to refrain from anything that would de facto restrict the existential space of the smaller essential cells of society. Their initiative, freedom, and responsibility must not be supplanted. [Comp. §186].

Information is among the principal instruments of democratic participation. Participation without an understanding of the situation of the political community, the facts and proposed solutions to problems is unthinkable. It is necessary to guarantee a real pluralism in this delicate area of social life, ensuring that there are many forms and instruments of information and communications. It is likewise necessary to facilitate conditions of equality in the possession and use of these instruments by means of appropriate laws. Among the obstacles that hinder the full exercise of the right to objectivity in information, special attention must be given to the phenomenon of the news media being controlled by just a few people or groups. This has dangerous effects for the entire democratic system when this phenomenon is accompanied by ever closer ties between governmental activity and financial and information establishments. [Comp. §414].

11. States shall enact effective environmental legislation. Environmental standards, management of objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

An economy respectful of the environment will not have the maximization of profits as its only objective, because environmental protection cannot be assured solely on the basis of financial calculations of costs and benefits. The environment is one of those goods that cannot be adequately safeguarded or promoted by market forces. Every country, in particular developed countries, must be aware of the urgent obligation to reconsider the way that natural goods are being used. Seeking innovative ways to reduce the environmental impact of production and consumption of goods should be effectively encouraged. [Comp. §470].

12. States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

The solution to the problem of development requires cooperation among individual political communities. "Political communities condition one another and we can affirm that each one will succeed in its development by contributing to the development of the others. For this to happen, understanding and collaboration are essential." It may seem that underdevelopment is impossible to eliminate, as though it were a death sentence, especially considering the fact that it is not only the result of erroneous human choices but also the consequence of "economic, financial and social mechanisms" and "structures of sin" that prevent the full development of men and peoples. [Comp. §446].

13. States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Responsibility for the environment should ... find adequate expression on a juridical level. It is important that the international community draw up uniform rules that will allow States to exercise more effective control over the various activities that have negative effects on the environment and to protect ecosystems by preventing the risk of accidents. [Comp. §468].

14. States should effectively cooperate to discourage or prevent the relocation and transfer to other States of activities and substances that cause environmental degradation or are found to be harmful to human health.

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. [Comp. §481].

15. In order to protect the environment, the precautionary approach should be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The authorities called to make decisions concerning health and environmental risks sometimes find themselves faced a situation in which available scientific data are contradictory or quantitatively scarce. It may then be appropriate to base evaluations on the “precautionary principle” which does not mean applying rules but certain guidelines aimed at managing the situation of uncertainty. This shows the need for making temporary decisions that may be modified on the basis of new facts that eventually become known. Such decisions must be proportional with respect to provisions already taken for other risks. Prudent policies, based on the precautionary principle require that decisions be based on a comparison of the risks and benefits foreseen for the various possible alternatives, including the decision not to intervene. This precautionary approach is connected with the need to encourage every effort for acquiring more thorough knowledge, in full awareness that science is not able to come to quick conclusions about the absence of risk. The circumstances of uncertainty and provisional solutions make it particularly important that the decision-making process be transparent. [Comp. §469].

16. National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

The juridical content of “the right to a safe and healthy natural environment” is gradually taking form, stimulated by the concern shown by public opinion to disciplining the use of created goods according to the demands of the common good and a common desire to punish those who pollute. But juridical measures by themselves are not sufficient. They must be accompanied by a growing sense of the responsibility well as an effective change of mentality and lifestyle. [Comp. §468].

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.” [Comp. §470].

17. Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

“The State should ... actively endeavor within its own territory to prevent the 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.” [Comp. §468].

18. States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

Today, there is a rising awareness that the adoption of measures to protect the environment implies a real and necessary solidarity among nations. It is becoming more apparent that an effective solution to the problems raised by the risk of atomic and atmospheric pollution and the deterioration of the general conditions of nature and human life can be provided only on the world level. This in turn entails a recognition of the increasing interdependence which characterizes our age. Indeed, it is increasingly evident that development policies demand a genuine international cooperation, carried out in accord with decisions made jointly and within the context of a universal vision, one which considers the good of the human family in both the present generation and in those to come. [John Paul 1989, § 9].

It would be difficult to overstate the weight of the moral duty incumbent on developed countries to assist the developing countries in their efforts to solve their chemical pollution and health hazard problems. [John Paul 1993, § 3].

19. States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary effect and shall consult with those States at an early stage and in good faith.

In many cases the effects of ecological problems transcend the borders of individual States; hence their solution cannot be found solely on the national level. Recently there have been some promising steps toward such international action, yet the existing mechanisms and body are clearly not adequate for development of a comprehensive plan of action. Political obstacles, forms of exaggerated nationalism and economic interests – to mention only a few factors – impede international cooperation and long-term effective action. [John Paul 1990, § 9].

20. Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

The feminine genius is needed in all expressions in the life of society, therefore the presence of women in the workplace must ... be guaranteed. [Comp. §295].

Women will increasingly play a part in the solution of the serious problems of the future: leisure time, the quality of life, migration, social services, euthanasia, drugs, health care, the ecology, etc. In all these areas a greater presence of women in society will prove most valuable, for it will help to manifest the contradictions present when society is organized solely according to the criteria of efficiency and productivity, and it will force systems to be redesigned in a way which favours the pro-cesses [sic] of humanization which mark the “civilization of love.” [John Paul 1995, § 4]

21. The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Responsibility for the environment, the common heritage of mankind, extends not only to present needs but also to those of the future. “We have inherited from past generations, and we have benefited from the work of our contemporaries: for this reason we have obligations towards all, and we cannot refuse to interest ourselves in those who will come after us, to enlarge the human family.” This is a responsibility that present generations have toward those of the future, a responsibility that also concerns individual States and the international community. [Comp. §467].

22. Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

The relationship of indigenous peoples to their lands and resources deserves particular attention, since it is a fundamental expression of their identity. Due to powerful agro-industrial interests or the powerful processes of assimilation and urbanization, many of these peoples have already lost or risk losing the lands on which they live, lands tied to the very meaning of their existence. The rights of indigenous people must be appropriately protected. These people offer an example of a life lived in harmony with the environment that they have come to know well and preserve. Their extraordinary experience, which is an irreplaceable resource for all humanity, runs the risk of being lost together with the environment from which they originate. [Comp. §471].

Special attention must be given to specific local features and cultural differences that are threatened by the economic and financial process currently underway: “Globalization must not be a new version of colonialism. It must respect the diversity of cultures which, within the universal harmony of peoples, are life’s interpretive keys. In particular, it must not deprive the poor of what remains most precious to them, including their religious beliefs and practices, since genuine religious convictions are the clearest manifestation of human freedom.”[Comp. §366].

23. The environment and natural resources of people under oppression, domination and occupation shall be protected.

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 crises affects those who are poorest in a particular way, whether they live in those lands subject to erosion and desertification, are involved in armed conflicts or subject to forced immigration, or because they do not have the economic and technological means to protect themselves from other calamities....

It is moreover necessary to keep in mind the situation of those countries that are penalized by unfair international trade regulations and countries with a scarcity of capital goods, often aggravated by the burden of the foreign debt. In such cases hunger and poverty make it virtually impossible to avoid an intense and excessive exploitation of the environment. [Comp. §482].

24. Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Seeking alternative solutions to war for resolving international conflicts has taken on tremendous urgency today, since “the terrifying power of the means of destruction – to which even medium and small-sized countries have access – and the ever closer links between the peoples of the whole world make it very difficult or practically impossible to limit the consequences of a conflict.” It is therefore essential to seek out the causes underlying bellicose

conflicts, especially those connected with structural situations of injustice, poverty and exploitation, which require intervention so that they may be removed. [Comp. §498].

25. Peace, development and environmental protection are interdependent and indivisible. ... another name for peace is development. Just as there is a collective responsibility for avoiding war, so too there is a collective responsibility for promoting development. [Comp. §498].

26. States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Not only does the Charter of the United Nations ban recourse to force, but it rejects even the threat to use force. This provision arose from the tragic experience of the Second World War. During this conflict the Magisterium did not fail to identify certain indispensable factors for building a renewed international order: the freedom and territorial integrity of each nation, defence of the rights of minorities, an equitable sharing of the earth's resources, the rejection of war and an effective plan of disarmament, fidelity to agreements undertaken and an end to religious persecution. [Comp. §438].

27. States and people shall cooperate in good faith and in a spirit of partnership and the fulfillment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

As regards the ecological question, the social doctrine of the Church reminds us that the goods of the earth were created by God to be used wisely by all. They must be shared equitably, in accordance with justice and charity. This is essentially a question of preventing the injustice of hoarding resources: greediness, be it individual or collective, is contrary to the order of creation. 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. [Comp. §481].

Table 1 identifies each of the 27 norms as an *end* of sustainable development (performance) or a *means* by which sustainability is achieved, maintained, or restored (process). Whenever a specific norm is both process-related and performance-related, the more important of the two is listed first. Each one of the 27 norms also is identified as actuating, limiting, or both.

With few exceptions, a process-related norm by its very nature points to or implies a performance-related norm. Absent an *end* to be achieved, a *means* has no significance. A performance-related norm, on the other hand, can stand alone.

III. CLOSING REMARKS

We close with the following six comments. First, in Section I we presented a general framework that shows how to organize the actuating and limiting norms of sustainable development and have identified in Section II the U.N.'s 27 norms of development as either actuating or limiting and performance-related or process-related. It bears repeating that the *Compendium* is a secondary source of information.

**TABLE 1. UNITED NATION'S 27 NORMS OF SUSTAINABLE DEVELOPMENT
BY TYPE: ACTUATING OR LIMITING, PERFORMANCE OR PROCESS**

- Norm→
1. Performance: Actuating.
 2. Process: Actuating; Performance: Actuating & Limiting.
 3. Performance: Actuating.
 4. Performance: Actuating.
 5. Process: Actuating; Performance: Actuating.
 6. Performance, Actuating; Process: Actuating.
 7. Process: Actuating; Performance: Actuating.
 8. Process: Actuating; Performance, Actuating.
 9. Process: Actuating; Performance, Actuating.
 10. Process: Actuating & Limiting; Performance: Actuating & Limiting.
 11. Process: Actuating; Performance: Actuating & Limiting.
 12. Process: Actuating & Limiting; Performance: Actuating & Limiting.
 13. Process: Actuating; Performance: Limiting.
 14. Process: Actuating; Performance: Limiting.
 15. Process: Actuating; Performance: Actuating & Limiting.
 16. Process: Actuating; Performance: Actuating & Limiting.
 17. Process: Actuating; Performance: Limiting.
 18. Process: Actuating; Performance: Limiting.
 19. Process: Actuating; Performance: Limiting.
 20. Process: Actuating; Performance: Actuating.
 21. Process: Actuating; Performance: Actuating.
 22. Process: Actuating; Performance: Actuating.
 23. Performance: Actuating.
 24. Process: Actuating; Performance: Actuating.
 25. Performance: Actuating.
 26. Process: Actuating.
 27. Process: Actuating.
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Second, 22 of the U.N.'s 27 norms are process-related either primarily (21) or secondarily (1). Twenty process-related norms function in the actuating mode. The other two function in both the actuating and limiting modes. These norms, in other words, overwhelmingly specify the processes to be followed rather than the processes to be avoided.

Third, 25 of the U.N. norms are performance-related either primarily (6) or secondarily (19). Fourteen function in the actuating mode, five others in the limiting mode, and the remaining six in both modes. The six that are primarily performance-related express the U.N.'s vision in terms of the positive effects of sustainable development.

Fourth, though the two institutions are vastly different – the one secular, the other sacred -- there is a significant correspondence between the U.N.'s 27 norms of sustainable

development and Catholic social teaching. However, we are not able to tell whether the Church influenced the U.N. or the U.N. influenced the Church. In any case, there is no explicit evidence indicating irreconcilable differences between the two on sustainable development.

Fifth, John Paul II largely is responsible for shaping Catholic social teaching on sustainable development. In the *Compendium's* 15-page chapter on safeguarding the environment, *Sollicitudo Rei Socialis* and *Centesimus Annus* are cited nine times each. Further, John Paul is cited 60 times in that section, whereas only two other papal documents are referenced, both by Paul VI.

Sixth, the U.N.'s norms do not reflect the same concern for the sanctity of human life as Catholic social teaching. The first U.N. norm states that "human beings are at the centre of concerns for sustainable development." In *Centesimus Annus* John Paul traces Catholic social teaching to Leo XIII's *Rerum Novarum* in which the human person has conferred upon him an "incomparable dignity" and states that since WWII the Church has put the "dignity of the person at the centre of her social messages" [John Paul 1991, §§11, 61]. This difference bears careful watching in the deliberations of the U.N.'s June 2012 conference on sustainable development scheduled for Rio de Janeiro.

References

- A/CONF. 151. 26 (Vol. I). *Report of the United Nations Conference on Environment and Development*, 12 August 1992, available at <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm> (accessed March 14, 2011).
- A/RES/42/187. *Report of the World Commission on Environment and Development*, 11 December 1987, available at <http://www.un.org/documents/ga/res/42/ares42-187.htm> (accessed March 17, 2011).
- Becker, Joseph M. *The Adequacy of the Benefit Amount in Unemployment Insurance*. Kalamazoo: The W. E. Upjohn Institute for Employment Research, May 1961.
- European Communities, *How Does the European Union Work?* Office of the Official Publications of the European Communities, Luxembourg, 1996.
- John Paul II. “Address of His Holiness John Paul II on the Occasion of the General Conference of FAO,” 16 November 1989, available at http://vatican.va/holy_father/john_paul_ii/speeches/1989/november/documents/hf_jp-ii_spe_19891116_xxv-session-fao... (accessed May 20, 2011).
- John Paul II. “Address of His Holiness John Paul II to the Participants in the Workshop on ‘Chemical Hazards in Developing Countries’ Organized by the Pontifical Academy of Sciences,” 22 October 1993, available at [http://vatican.va/holy_father/john_paul_ii/speeches/1993/october/documents/hf_jp-ii_spe_19931022_rischi-chimici_en ...](http://vatican.va/holy_father/john_paul_ii/speeches/1993/october/documents/hf_jp-ii_spe_19931022_rischi-chimici_en...) (accessed May 20, 2011).
- John Paul II. “Centesimus Annus,” 1 May 1991, available at http://www.vatican.va/holy_father/john_paul_ii/encyclicals/documents/hf_jp-ii_enc_01051991_centesimus_annus_en.html (accessed May 24, 2011).
- John Paul II. “Common Declaration on Environmental Ethics of John Paul II and the Ecumenical Patriarch His Holiness Bartholomew I, 10 June 2002, available at [http://www.vatican.va/holy_father/john_paul_ii/speeches/2002/june/documents/hf_jp-ii_spe_20020610_venice-declaration ...](http://www.vatican.va/holy_father/john_paul_ii/speeches/2002/june/documents/hf_jp-ii_spe_20020610_venice-declaration...) (accessed May 20, 2011).
- John Paul II. “Letter of Pope John Paul II to Women,” 29 June 1995, available at http://www.vatican.va/holy_father/john_paul_ii/letters/documents/hf_jp-ii_let_29061995_women_en.html (accessed May 20, 2011).
- John Paul II. “Peace with God the Creator, Peace with all of Creation,” 1 January 1990, available at http://www.vatican.va/holy_father/john_paul_ii/messages/peace/documents/

hf_jp-ii_mes_19891208_xxiii-world-day-for-peace ... (accessed May 20, 2011).

O'Boyle, Edward. "The *Acting* Person, Social Capital, and Sustainable Development," *Forum for Social Economics*, Volume 40, Issue 2, 2011.

Renard, Henri. *The Philosophy of Being*. Milwaukee: The Bruce Publishing Company, 1957.

UNCSD. United Nations Conference on Sustainable Development, Brazil, June 4-6, 2012, available at <http://www.uncsd2012.org/rio20/index.php?menu=17> (accessed May 23, 2011).

UNECE. "Sustainable Development – Concept and Action," United Nations Economic Commission for Europe, *Annual Report 2004-2005*, available at http://www.unece.org/oes/nutshell/2004-2005/focus_sustainable_development.htm (accessed March 17, 2011).