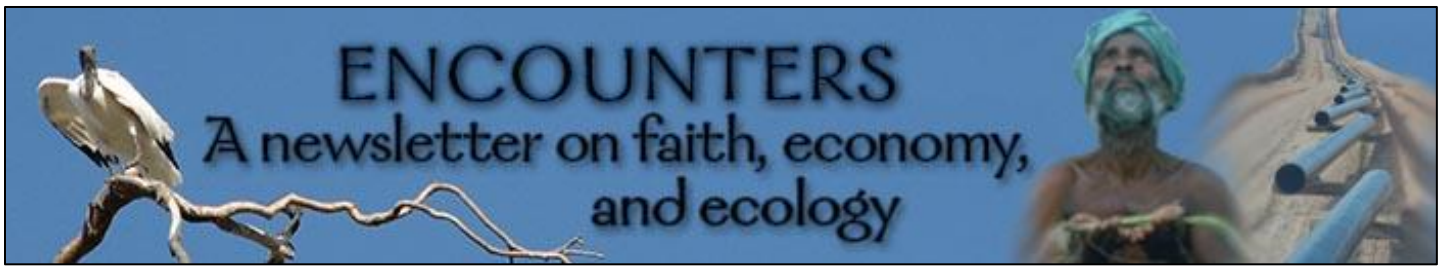


February 2016

As we transition from a planet that we falsely thought was endowed with endless resources to one with limits that we are running up against, it is clear that not only must a paradigm shift occur as described in the previous edition of Encounters, but also public policies need to change. To transform our economy to fit within the limits of Earth's biosphere and to distribute resources more equitably, Pope Francis describes some guiding principles as well as specific recommendations to inform policy changes. These suggestions affirm many of the principles and policy changes recommended in the Faith, Economy, Ecology, Transformation group's (FEET) founding statement.

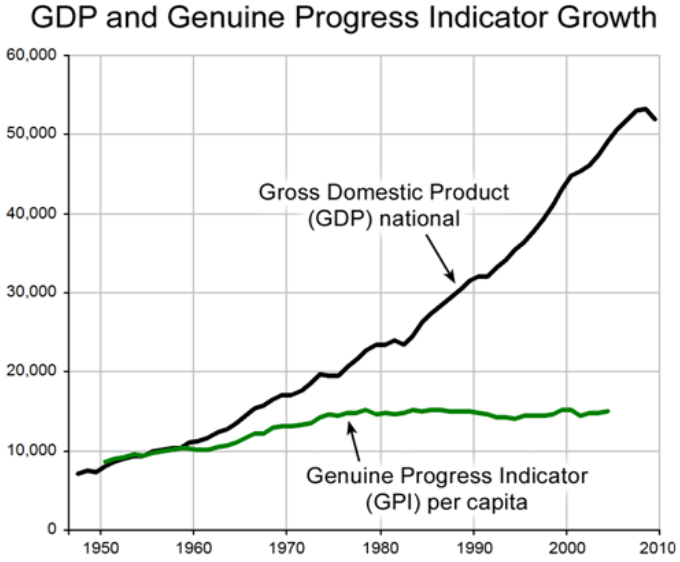
Redefine Progress

One of the most important changes needed is to redefine what we consider to be progress. For too long, policies have been based on the mythology that economic growth will solve all problems. But that is not the case, and many economists and social scientists are beginning to look beyond the gross domestic product (GDP).

This is because GDP is a flawed measure of well-being, counting spending on socially negative things such as pollution, crime, and traffic accidents, as positive for the economy, and counting the consumption of non-renewable resources as income instead of an expense. GDP also fails to account for important parts of the economy, such as work done in the home and volunteer hours. An illogical aspect of GDP is its failure to define limited goods (including dwindling natural resources like water, oil, minerals, fish) as scarce, placing low or no value on these things, while treating abundant goods, such as knowledge, as scarce due to patent and copyright systems.

> Frequently . . . people's quality of life actually diminishes – by the deterioration of the environment, the low quality of food or the depletion of resources – in the midst of economic growth. (194)

A variety of alternative measures have been created such as the Index of Sustainable Economic Welfare, the Genuine Progress Indicator, National Well-Being Accounts, the Happy Planet Index, and Gross National Happiness.



This graph, based on data collected by Redefining Progress, shows how GDP has grown steadily since 1950, but the Genuine Progress Indicator - which considers income distribution, changes in leisure time, housework, volunteering, and effects from higher education - has not increased since the mid-1970s. While GDP increases with spending on crime, resource depletion, pollution, and other socially negative spending, the GPI treats these types of spending as costs.

Finding the right alternative is not easy. There are many factors to be considered. Ben Beachy and Justin Zorn describe these factors in a working paper for the Welfare Wealth Work for Europe project, including the influence of political orientation on the diverse reasoning for changing GDP.

Beachy and Zorn recommend four new indicators to supplement the GDP, each measuring aspects considered important by different interests.

Jeroen van den Bergh and Miklos Antal, professors at the Autonomous University of Barcelona evaluated alternatives to the GDP and found shortcomings in all of them. They suggest that governments place less importance on GDP growth until better alternatives are developed.

Treat social and ecological problems together

A repeated theme in *Laudato Si'* is the idea that ecological problems and social problems cannot be considered in isolation. "When we speak of the 'environment,' what we really mean is a relationship existing between nature and the society which lives in it. Nature cannot be regarded as something separate from ourselves or as a mere setting in which we live. We are part of nature, included in it and, thus, in constant interaction with it." (139)

> We have to realize that a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both "the cry of the earth and the cry of the poor." (49)

Protecting the environment is often portrayed as at odds with protecting workers we try to save the environment, then workers will lose out" is the oft-repeated theme. Yet there is growing interest in an important public policy that could decrease damage to the environment while also providing security for workers: Nature trusts. A trust holds and manages property for one or more designated beneficiaries. The essence of a trust is a fiduciary relationship. A trustee never acts in her own self-interest; she's legally bound to act solely on behalf of beneficiaries, which can even include future generations. A good history of public trusts can be found here.

Trusts are being used to protect various parts of nature: sustainable fisheries trusts have been established in Alaska, New England and elsewhere. Land trusts have long been used to protect the environment as well as avoid gentrification in cities. The Crop Trust is an international organization that helps protect crop diversity. Perter Barnes explains the benefits of trusts and other areas where they can be used here.

Some religious communities are creating land trusts to protect the land they own from being developed unsustainably. Father Kolasa of the Congregation of Sacred Hearts in Wareham, Massachusetts that recently placed 120 acres of woods worth tens of millions of dollars into a trust explains the motivation of many of these communities, "To give up potential financial returns on land is a total act of faith. But in the end, we felt that the integrity of the land was greater than its financial value."

A good example that could have a real effect on climate change while providing added income to workers is the proposed Sky Trust by Peter Barnes. The proposal is based on the idea that every person in the U.S. owns the sky as if it were a common asset. This belief echoes Pope Francis who writes in *Laudato Si'*: "The climate is a common good, belonging to all and meant for all." (23) The mechanism of the sky trust is called carbon cap and dividend – a government establishes a trust, to be directed either by the government or a not-for-profit corporation that places a cap (limit) on the amount of carbon that can be extracted in a year and auctions off permits to extraction companies. Each year, it reduces the amount of permits available, thus driving up the price of carbon-based fuels.

A cap alone would drive up gasoline, oil, coal, and natural gas prices. This would be especially harmful for low-income families who spend large portions of their income on energy. To avoid this, the money raised auctioning the permits would be returned to each citizen of the country equally. Those who reduce their fossil fuel use more will benefit more and low-income families would benefit more than those with high-income. A study from the University of Massachusetts

Amherst estimated that a cap and dividend policy with a permit price of $200 per ton of carbon would reduce U.S. emissions by seven percent while families in the poorest quintile would gain 14.8 percent in income and those in the richest quintile, who tend to use more energy, would lose 2.4 percent of their income in added energy costs.

A growing international movement of youth mobilizing to force their governments to care for the atmosphere is gaining attention and legal victories. The TRUST Campaign, inspired in great part by Mary Wood, an environmental law professor at the University of Oregon, combines public education, political advocacy and lawsuits to influence local, state and national governments. Since 2011 they have used the public trust doctrine, a long established legal principle that governments are responsible for protecting natural resources for current and future generations. "There are many, many cases which say clearly that government must protect our wildlife, our waters, our streambeds and so forth," Professor Wood said. "[In these lawsuits we] characterize the atmosphere as an asset that the people own in common. The government is a trustee of that asset. Once you characterize the atmosphere as a trust asset, the next question is what is government's obligation to us, the people?" You can see encouraging videos of youth involved in this campaign here and monitor the campaign here. An early victory by Dutch youth is promising, but there are many hurdles yet to be overcome.

Ecological debt

The concept of "ecological debt" is rarely discussed in the United States, but increasingly used by people in the Global South. In *Laudato Si'*, Pope Francis explains different aspects of this debt. One is that industrialized countries in the Global North have consumed a disproportionate amount of natural resources, often taken from other countries. While few of us consider where the raw materials behind all our consumption come from, people in the Global South are all too aware that "[t]he export of raw materials to satisfy markets in the industrialized north has caused harm locally."(51)

> A true 'ecological debt' exists, particularly between the global north and south, connected with commercial imbalances with effects on the environment, and the disproportionate use of natural resources by certain countries over long periods of time. (51)

Another aspect of ecological debt the pope names in *Laudato Si'* is "damage caused by the export of solid waste and toxic liquids to developing countries, and by the pollution produced by companies which operate in less developed countries in ways they could never do at home." Francis quotes the bishops of the Patagonia-Comahue region in Argentina who describe a reality repeated throughout the global south yet mostly unrecognized by those in the Global North: "'We note that often the businesses which operate this way are multinationals. They do here what they would never do in developed countries or the so-called first world. Generally, after ceasing their activity and withdrawing, they leave behind great human and environmental liabilities such as unemployment, abandoned towns, the depletion of natural reserves, deforestation, the impoverishment of agriculture and local stock breeding, open pits, riven hills, polluted rivers and a handful of social works which are no longer sustainable." (51)

The town of Bento Rodriguez is buried in toxic mud after a dam burst, causing the worst environmental disaster in Brazil's history in November, 2015. Photo by Senado Federal and licensed in creative commons 2.0.

A third facet of ecological debt is "warming caused by huge consumption on the part of some rich countries has repercussions on the poorest areas of the world, especially Africa, where a rise in temperature, together with drought, has proved devastating for farming." (51) Sadly, countries closest to the equator are predicted

to experience the worst effects of climate change even though countries in the temperate zone are much more responsible for causing the changes.

"Developed countries ought to help pay this debt by significantly limiting their consumption of nonrenewable energy and by assisting poorer countries to support policies and programs of sustainable development," Francis says. "The poorest areas and countries are less capable of adopting new models for reducing environmental impact because they lack the wherewithal to develop the necessary processes and to cover their costs." (52)

Developed countries can begin to pay this debt through climate finance. In 2009, developed countries committed to a goal of mobilizing $100 billion a year by 2020 of climate financing, to be transferred to developing countries for climate action. The vehicle to deliver a significant portion of this climate finance is the Green Climate Fund (GCF). The fund is unique in that half the money goes to adaptation (addressing damage in developing countries caused by climate change) and half the money goes to mitigation (curtailing emissions through renewable energy projects). The GCF is aimed especially at small island states, African states and the 48 countries classified by the United Nations as least developed. The fund has already committed to eight adaptation projects. Almost immediately after its launch in 2014, however, the GCF began lowering expectations. The fund scaled back its original goal of raising $15 billion that year, to $10 billion, even before opening for donations. The U.S. has committed to contribute $3 billion, which is only one-third of the fund though it is the largest commitment to date. China has committed to contribute $3.1 billion unilaterally to their own efforts aimed at 50/50 adaptation and mitigation.

It is widely recognized that it will be impossible to reach the $100 billion goal without private financing. The private sector, however, is principally interested in only funding mitigation projects because adaptation projects are less profitable. The OECD reported that only 16 percent of the funds raised went toward adaptation in 2014. This is insufficient to meet the magnitude of damage from current and future climate-related disasters.

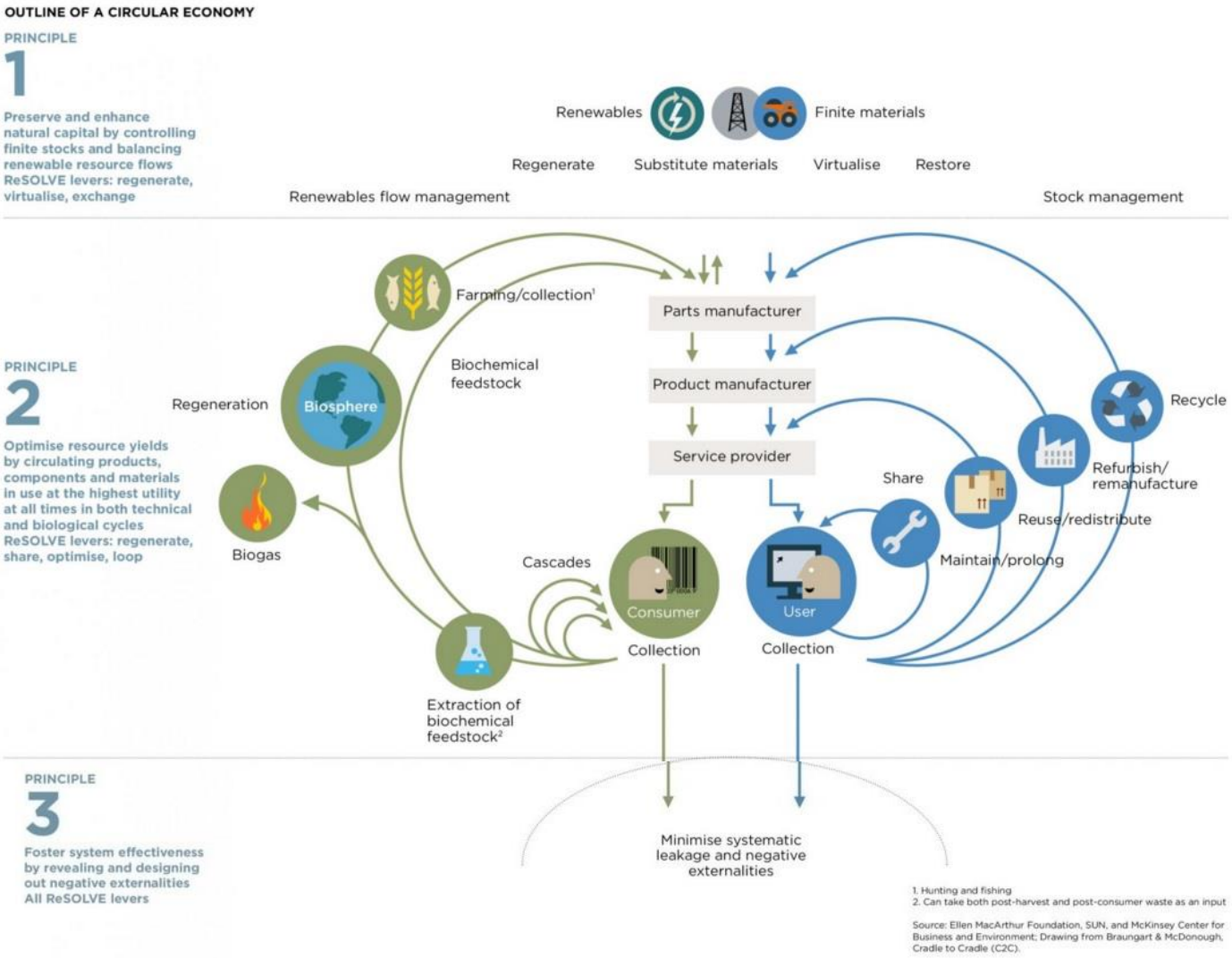
Circular Economy

In *Laudato Si'*, Pope Francis repeatedly names a "throwaway culture" as a root cause of the ecological crisis. "Doomsday predictions can no longer be met with irony or disdain. We may well be leaving to coming generations debris, desolation and filth. The pace of consumption, waste and environmental change has so stretched the planet's capacity that our contemporary lifestyle, unsustainable as it is, can only precipitate catastrophes, such as those which even now periodically occur in different areas of the world. The effects of the present imbalance can only be reduced by our decisive action, here and now." (161)

> In many parts of the planet, the elderly lament that once beautiful landscapes are now covered with trash. Industrial waste and chemical products utilized in cities and agricultural areas can lead to bioaccumulation in the organisms of the local population, even when levels of toxins in those places are low.
> (21)

An important solution to reducing physical waste is moving toward a circular economy, as seen in the natural world. "The way natural ecosystems work is exemplary: plants synthesize nutrients which feed herbivores; these in turn become food for carnivores, which produce significant quantities of organic waste which give rise to new generations of plants," Francis says. "But our industrial system, at the end of its cycle of production and consumption, has not developed the capacity to absorb and reuse waste and by-products. We have not yet managed to adopt a circular model of production capable of preserving resources for present and future generations, while limiting as much as possible the use of nonrenewable resources, moderating their consumption, maximizing their efficient use, reusing and recycling them. A serious consideration of this issue would be one way of counteracting the throwaway culture which affects the entire planet, but it must be said that only limited progress has been made in this regard." (22)

Indeed, progress has been limited and changes are happening slowly, but there are examples of movement toward a circular economy. The Ellen MacArthur Foundation was established in 2010 to speed the transition to a circular economy, which is illustrated below. The foundation offers examples of businesses that have adopted circular production methods such as Splosh, which packages its household products in dissolvable packets instead of plastic bottles, essentially eliminating packaging waste, and Desso, a flooring manufacturer that redesigned its carpets so they can be dissembled, reprocessed, and reused in other carpets.



http://www.ellenmacarthurfoundation.org/circular-economy/interactive-diagram

While most of the movement toward a circular economy will come from business leaders, governments can help speed up the process. A study by the World Bank published in 2006 entitled "Circular Economy Legislation – the international experience" continues to offer relevant examples of the types of laws and initiatives governments have implemented to help spur the circular economy. In 2012, Chatham House, a British think tank, published an analysis of the circular economy which details helpful policies governments can adopt, such as end-of-life regulations that are already being applied in the EU and some Asian countries. Also, governments can stimulate businesses that use circular production methods through public procurement. Denmark has been especially effective in using this method. China has also been on the forefront of the global movement toward a circular economy.

Carbon Offsets

While most of the policy suggestions made by Pope Francis in *Laudato Si'* point toward principles or broader concepts, he expounds on one specific policy proposal: carbon markets. "This system seems to provide a quick and easy solution under the guise of a certain commitment to the environment, but in no way does it allow for the radical change which present circumstances require. Rather, it may simply become a ploy which permits maintaining the excessive consumption of some countries and sectors." (171)

> The strategy of buying and selling 'carbon credits' can lead to a new form of speculation which would not help reduce the emission of polluting gases worldwide.
> (171)

The concept of carbon credits is enticing: A company or country, usually in the Global North, can offset (or compensate for) the carbon emissions that they emit by avoiding the release of an equal amount of emissions at another location, usually in the Global South, or by sequestering the same amount of carbon. Yet when the concept is placed into practice, a host of problems become evident.

First, carbon offsetting shifts the responsibility for reducing carbon emissions from the major polluting industries and countries to indigenous communities that are already using their land in a sustainable manner and contribute minimally to the buildup of greenhouse gases. By buying these offsets, polluting businesses lose their incentive to make changes in their own operations.

Second, many carbon-related projects have negative effects on local communities. GRAIN and the World Forest Movement produced a report about indigenous and peasant communities negatively affected by carbon offset projects that are part of the United Nations' Reducing Emissions from Deforestation and Forest Degradation (REDD+) program. "Most REDD+ activities place limits, quite often severe limits, on the use of forests by local communities for shifting cultivation, for gathering and for other subsistence activities," the report says. "Restrictions on hunting, fishing, grazing or cutting some trees for the construction of homes or canoes are also regularly established and enforced by REDD+ project owners, often with the support of armed guards. At the same time, large-scale drivers of deforestation, like industrial logging, infrastructure mega-projects, mining, large hydro-dams, and, above all, industrial plantations for trees, oil palm or soybeans, continue without restriction."

Third, the science behind many of the numbers involved in carbon trading is questionable at best. A report by Carbon Trade Watch points out, "Carbon stored in forests (largely in soils) is part of a natural cycle between the atmosphere, the oceans and the biosphere whose dynamics are difficult to predict and quantify and differ from location to location. In addition, there is the question of 'permanence': it is impossible to predict how long the trees will remain living (i.e. storing carbon) in one place." For example, the British band Coldplay tried to offset the carbon emissions from producing their musical album by hiring a company to plant 10,000 mango trees in southern India. An investigation four years later showed that only a few hundred of the trees remained after thousands had died due to lack of care.

The Government Accountability Office concluded that "the overall effect of the CDM [Clean Development Mechanism – the carbon offset program organized through the Kyoto climate negotiations] on international emissions is uncertain, largely because it is nearly impossible to determine the level of emissions that would have occurred in the absence of each project… it is impossible to know with certainty whether any given project is additional."

Fourth, carbon trading and offset schemes are open to corruption at nearly every step in the process, as a variety of articles have shown. Larry Lohmann, researcher and director of the Corner House, an NGO in the U.K., describes the carbon offset market as "an unregulatable market" and that "attempts to regulate it will only entrench its status as a locus of international corruption and exploitation."

Finally, perhaps the most important argument against carbon offsets (and carbon trading in general) is that they are distractions from better methods to reduce greenhouse gas emissions. While massive amounts of money flow through the carbon markets, little of it actually goes toward reducing carbon emissions. According to a World Bank study, in 2009, only two percent of the $144 billion global carbon market was used for project-based transactions. The remaining 98 percent went in to paying consultants, traders and international development organizations as satirized in the comic below.

Illustration from a video by FERN (2012): The Story of REDD: A real solution to deforestation?

Even that two percent is poorly spent, according to Carbon Trade Watch. "As of September 2009, three-quarters of the offset credits issued were manufactured by large firms making minor technical adjustments at a few industrial installations to eliminate HFCs ([hydroflourocarbons] refrigerant gases) and N2O ([nitrous oxide] a by-product of synthetic fiber production). It is estimated that a straightforward subsidy to regulate HFC emissions would have cost less than 100 million Euros."

For these reasons Pope Francis says that carbon credits are not an effective way to reduce greenhouse gas emissions.

In the next Encounters, we will look at *Laudato Si'* through the lens of the third pillar of the FEET founding statement: addressing corporate power and influence.