Italy's case in the global emergency: development, social justice and the environmental crisis

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Technological improvements and access to energy have allowed economic development to strain the environment. There has been a steady increase of 2-5% of the global GDP every year since the '90s, except for the years 2008 and 2009, during the peak of the economic crisis. The increase of the GDP worldwide has directly caused several environmental impacts; unequal access to natural resources, and unequal distribution of wealth. Data published by Oxfam on January 2015 show that in 2014 "the richest 1% of the people in the world owned 48% of global wealth, leaving just 52% to be shared between the other 99% of adults on the planet." Of this remaining 52%, only 5.5% is shared among 80% of the global population, mostly the income poor.

Many studies show a 40% increase in the concentration of carbon dioxide due to the combustion of fossil fuels, and the change in landuse. Between 2000 and 2010, energy consumption contributed up to 47% of the 10GT of greenhouse gas emissions, while industry has contributed up to 30%. This data clearly shows the relationship between energy that is produced and its contribution to the destruction of the environment. Furthermore, there is a clear distinction between the parties that gain economic benefits, and those who are subdued to environmental and health risks, as well as the degradation of natural resources. Therefore, it can be said that the environment is sacrificed not for the sake of a model that distributes its benefits equally, but rather for one that creates inequalities.

This is also true within the more "developed" countries. In Italy for example, the studies led by SENTIERI (Studio Epidemiologico Nazionale dei Territori e degli Insediamenti Esposti a Rischio da Inquinamento, 2011), the National Epidemiological Study on the Areas and Settlements at Risk from Pollution (NESASR 2011), show that between 1995 – 2002, 60% of the population living in the 44 research sites that are affected by environmental degradation is composed of low income communities.

This paper takes Italy as a case study to demonstrate how entrenched corporate and financial interests continue to dictate an energy mix dependent on fossil fuels. At the same time, this system is subsidized by the same citizens who are suffering from the pollution and environmental degradation brought on by these dirty fuels.

The energy model and "biocidio"

All actions that support the production and consumption of energy from non-renewable sources create major obstacles for the necessary measures to eliminate any additional greenhouse gas emissions. In Italy, despite the absence of an official count, data analysis from Legambiente, reveals that between 2001 to 2013 there were both direct and indirect economic subsidies of about 17.5 billion euros, amounting to almost 42.3 billion in funding for the creation of power plants that produce energy from fossil fuels.

10xfam, "Wealth, Having It All And Wanting More", January 2015 report

2IPCC – International Panel on Climate Change

According to the same report from Legambiente, new gas-powered and coal-fired power plants modified to process oil, mean that at peak production 78,000 MW of energy is being produced by thermoelectric plants in Italy, in addition to 45,000 MW from renewable sources. Meanwhile, the maximum amount of energy that is actually consumed and demanded from the Italian network is about 56,822 MW. The gap between the amount of energy demanded by the consumers, and that produced raises the question of why public policies continue to facilitate subsidies for fossil fuels and the construction and refitting of more dirty power plants.

Coal is the source of 42% of electricity generation globally, and 33% within Europe, wherein nuclear and coal combined represent an average of 60-70% of energy.i According to data from 2013, if Italy were to completely abandon the use of nuclear energy, 50% of its energy would be derived from natural gas, 8% from oil, 12% from coal, and 30% from renewable resources. Italy does not depend on coal as much as the rest of Europe, but instead is dependent upon electric energy from natural gas. Yet energy producers in Italy are exhibiting a new-found interest in coal. ENEL states that the main advantage of coal is that it is cheap, and that the only way to generate the same amount of energy in certain particular geographical areas are hydroelectric and nuclear power.



Coal is one of the most polluting fossil fuels. Its combustion generates 30% more CO₂ compared to oil, and 70% more than natural gas. The report, "The unpaid health bill: How coal power plants make us sick", produced by HEAL (Health and Environment Alliance), demonstrates how coal is the leading cause of: 18,200 premature deaths; 2,100,000 days in hospital; 4,100,00 days of labour lost: 28,600,000 cases of respiratory diseases; and healthcare costs that range between 15.5 and 42.8 billion euros annually. This data only shows health cases in Europe, where coal consumption is relatively low. In China for example, air pollution is classified as the primary cause of social unrest. In Italy, there are 13 active coal plants that have severe environmental and health impacts on the surrounding areas and communities. On March 2014, the Tirreno Power di Vado Ligure power plant was forcefully shut down after being found responsible for affecting 442 people's livelihoods between the years 2000 to 2007.

People over the market

The amount of direct and indirect subsidies that perpetuate fossil fuel use both in Italy and globally demonstrate the complex political arrangements that maintain huge volumes of industrial energy production. These subsidies guarantee large profits to a very limited section of the population. Furthermore, the current financial process allows only a select few with very limited interests to impose their power on the greater population, at the cost of environmental degradation and health. The current energy market distorts the rules of neoliberal economic theories on which it is based. The fact that recently built power plants are producing more than the current demand demonstrates that the investments for the construction and maintenance of the thermoelectric plants is kept in place, not because of demand for energy, but by the subsidies and the control over the increase in the price of energy.

The SEN of 2013

In Italy, from March 2013, the government under Monti, along with the Minister for the Environment (Clini), and the Minister of Economic Development (Passera), launched the *Strategia Energetica Nazionale* (SEN), a new national plan for energy. Italy has not had such a strategic plan in 24 years. The plan entails renewing the already existing oil facilities. Its main thrust is around positioning Italy as a transit hub for gas to Northwest Europe. This entails the development of gas hubs, <u>LNG terminals</u>, gas pipes and gas storages with the centre-piece being the Trans-Adriatic Pipeline — which will bring 10bn m³/yr of Azeri gas to southern Europe with plans to be completed towards the end of the decade. Finally, the plan foresees <u>doubling</u> the current amount of extracted fossil fuels in Italy. How consumers will benefit from these outcomes remains to be seen. Furthermore, consumers will have to pay for the additional construction, as the current network distribution does not have the appropriate infrastructure for distributing gas in liquid form. As a result, the SEN ignores the European Road Map towards 2050, which calls for renewable sources of energy as the primary source of energy.

Environmental deregulation: Unlocking Italy for extractivism

Law n.55, established on the 9th of April, 2002, and conversion of the decree of the 7th of February 2002, n.7 clearly states that Italy's priority was to take urgent measures to guarantee the safety of the national electricity system, which was later called, *Sblocca Centrali* (Unlocking Power Plants), focused on fast-tracking and streamlining of the decision-making procedures for the construction of super power plants.

The sole purpose of the decree was to avoid the imminent danger of interruption of the electric supply. Therefore, the government intervened to allow the central regions of Italy to produce more than 300MW of thermal energy. This new system would take place on all the single units that hold permits and rights over these plants, regardless of whoever released them. These actions seem to simplify the regulations for each of these plants, but in reality it was put in place to easily avoid certain environmental standards.

Another decree for development in 2012 was established to guarantee the development and strengthening of the energy sector. In addition, article 38-bis renders possible the identification of all electric power plants that produce energy greater than 300 MW, including those that have been stalled due to authorisation issues. The reasoning behind opening the power stations that have been closed is to provide more energy between January 1st, and March 31st, when there is a peak in the demand for natural gas. These power plants are thus allowed to be active in such irregular intervals ignoring the more stringent rules on the type of emissions that are released, and the rules on the specific quality of fuels. In addition, they are exempt from the various checks for maintenance and control. Articles 36-38 in the law n.133 established on September 12th, in 2014, also named *Sblocca Italia* (Unlock Italy), which was later converted into law n.164 on November 11th.

According to Salvatore Larosa "Sblocca Italia law is an assemblage of normative changes composed by 45 articles that address a heterogeneity of sectors with the stated goal to "reduce bureaucracy, unlock the country's development, re-launch the economy". From construction permits to oil extraction, touching on waste management, public administration reform, disaster prevention, privatisation of public services and even internet infrastructure, Unlock Italy is a festival of deregulation and legalised plunder."

The law grants the status of "strategic interest" and "public utility" to energy infrastructure such as pipelines, gas terminals, natural gas infrastructure networks (such as the <u>Trans-Adriatic Pipeline (TAP)</u> in Puglia) and the cultivation of oil and underground gas storage. Article 38 is particularly troubling as it provides environmental permits for offshore and mainland extraction to be granted within a single concession by the Ministry of Economic Development, therefore taking away administrative powers from local governments.

This will open the door to further extraction in largely populated areas, and in the areas at risk of earthquakes, such as Emilia Romagna, the Irpines, the Adriatic coast, the centre-southern regions, and Sicily. This new law will increase extraction, even in the region of Basilicata where currently 77% of its territory is already under use for mineral extraction. The new regulations grant immediate authorisation for such activities by decreasing the autonomy of each region, allowing further research and exploitation of hydrocarbons, in addition to permission and grants for up to 50 years. Further this decree aims to incentivise offshore oil drilling. While it is estimated that there are close to 10.3 million tons of potential oil reserves in the Mediterranean, which if extracted would only supply seven weeks of the national energy demand.

Climate emergencies: science and governance

At the end of 2015, the COP21 will be held in Paris, where governments aim to make a global agreement on the reduction of the emissions from fossil fuels that will eventually take the place of the second commitment period of the Kyoto Protocol that will end in 2020.

In 2014, the World Meteorological Organization (WMO), stated that the level of greenhouse gas emissions in 2013 has been the highest in the last 30 years, and that the levels of CO₂ are 142% higher than in the pre-industrial era. Just two months after this statement, the Intergovernmental Panel for Climate Change (IPCC), in its fifth report, stated that there has been a rise in global temperatures of about 0.85 °C in the lower terrestrial atmosphere, and a rise in sea levels of about 19cm from the 19th century. The IPCC also declared that in order to gain concrete results against the rise in temperatures, emissions will have to be reduced by 40 to 70% by 2050, and will have to cease to exist by 2100.

The Global Commission on the Economy and Climate works gives an economic value to the impacts of these global changes. A recent study published by the commission states that in order for mitigation measures to have an effect, it is necessary to discontinue subsidies for fossil fuels (which amount to 600 billion dollars per year, compared to 100 billion dollars for renewable sources). Simultaneously, in order to have a low carbon impact, it is necessary to invest about 90,000 billion dollars in new infrastructure over the next 15 years. This would add to an expense of about 270 billion dollars more per year, which would be compensated by the reduction of the dependence on fossil fuels as well as a reduction in the investments for public health. In fact, the 15 countries that emit CO₂ the most spend about 4% of their GDP on health costs.

Current negotiations

Two conferences have been scheduled for negotiations before the decision upon the verdict in Paris this December: the first was held in February in Geneva, and the next will be in June in Bonn, Germany. The ADP, the Durban Platform for Enhanced Action that was established during the COP17 in Durban, was the centre of discussion in the conference in Geneva, as well as additional plans were made on the document approved by the conference in Lima.

Other than these large-scale negotiations, actions taken by each nation will also be crucial. Each government will be called to present their strategies on their plans to reduce their national emissions (Intended Nationally Determined Contributions), between April and October. The UN committees will evaluate whether each nation's intended target will be enough to make changes on a global scale. By the 31st of March, only 34 out of 195 countries presented their "Intended Nationally Determined Contributions". Among these 35 countries are: the European Union, Mexico, US, and Russia. So far, the plans in these proposals are not enough to prevent further rising global temperatures. In addition, the rest of the countries that emit greenhouse gases such as Australia, Canada, China, Japan, India, New Zealand, etc. have postponed presenting their plans.

According to the analysis made by the Reseau Action Climat-France, the French wing of the Climate Action Network, the more countries postpone the submission of their plans, the less countries will feel the need to strive for stricter measures by achieving the same level of ambition that other countries have presented. For this reason, the evaluation and the comparison of the standards becomes much harder for the UN to make.

A recent study from the New Climate Institute counted the additional benefits that could be obtained from China, the United States, and Europe if only they were to strive to achieve greater results than those presented in their initial proposals. If all three of these highly polluting economies were to make efforts to rely solely on renewable resources by the year 2050, they would be able to create 3 million jobs from now until 2030, and would save 2 million lives from the negative impacts of air pollution. They would also save up to US\$520 billion per year due to the reduction in the costs to import fossil

fuels. Furthermore, if all of the countries were to do the same, then the average temperature of the planet would stay below the 2°C level, which scientists consider to be the maximum limit for dangerous repercussions on the environment.

Italy's undermines the importance of climate change

In Italy, issues regarding climate change are not present in the political agenda nor in the public debate. On September 2014, Prime Minister Renzi declared that the environment needs to be a top political priority. He also stated the importance of efforts in Paris to guarantee future generations' well-being. Just two months later, the government changed the decree Unlock Italy that allowed a greater amount of research and extraction of energy. The Italian government is certainly not the only one that is two-faced in its stance against fighting climate change.

In order to act in an effective way against climate change, there needs to be a re-evaluation of the current economic system and the methods of production and consumption, starting from the energy sector. Investments made for fossil fuels should be used for changing the energy mix into renewable energy that are distributed equally. Further investments could be made for more ecological forms of producing goods, efficient transportation systems that run on clean energy, finding ways to avoid the use of more cement, while also restoring the health of both water and land systems. Finally, political strategies must be put in place in order to adapt to the impacts of climate change, such as strengthening urban resilience in highly populated areas.

i www.assocarboni.it