

Economic changes, policy changes:
The first major effect of the Green Revolution¹

Diego Masi²
Chairman at Go Green Digital

Author Note

This article is a translation from Italian to English of Chapter 5 of the book *GO GREEN: il nuovo trend della comunicazione* (Bologna, Italy: Logo Fausto Lupetti Editore, 2010), pp 85-96. Translated by Matthew Kubik and Patrick Ashton and published with permission of the author and publisher. Text in brackets [] consists of annotations by the translators.

Correspondence regarding this article should be addressed to Matthew Kubik, Indiana University-Purdue University Fort Wayne, College of Engineering, Technology, and Computer Science; Engineering, Technology, and Computer Science Building, 2101 E Coliseum Blvd, Fort Wayne, IN 46805-1499. Phone: 260-481-0146. Fax: 260-481-5734. Email: kubik@ipfw.edu.

Abstract

The Green Economy is something more than the sum of all possible related efforts to create a “green” turning point in the economy. It is a revolution of the way of life of the inhabitants of the planet to try to change a system that is leading us to self-destruction. The facts speak for themselves: the human factor is affecting the climate with vast greenhouse gas emissions due not only to the exploitation of fossil fuels but also to deforestation, agriculture and intensive livestock farms, and of course industrialization. The Green Revolution is thus the first collective effort to save the species. It has just started, but like all revolutions that start from the bottom it will make changes to our reality that become normality.

Keywords: green business, environment, green economy, energy

The Rise of the Rest, the growth of those countries that so far have not been among actors on the international scene. Here is the leitmotif of the coming years.

The unchallenged hegemony of the United States, which began with the crisis and the collapse of communism in the Soviet Union and its satellite states, ended with the Bush era. It ended with the loss of power on the part of the power axis of oil/auto/banks. It ended with the war in Iraq, conducted not only in order to ensure the supply of black gold but also to reaffirm the strength of Uncle Sam to all the powers in the Middle East. But it has turned into a small Vietnam. It ended with the sunset of a source of energy: oil.

This does not mean that the United States will no longer have any role in the future world, but it certainly will not retain the hegemony recognized by everyone that it has enjoyed for decades. According to the best political analysts, including Fareed Zakaria, author of the bestseller *The Post-American World*, the position of the USA will be that of *primus inter pares*, where the peer review will be economically growing countries, Brazil, Russia, India, China, (BRIC), especially, but also our Europe (the members of the G20, so to speak). For other analysts, the geopolitical scenario will be even more radical and will star only the U.S. and China. Their agreement – or disagreement – will influence the twenty-first century just as the rivalry between the Americans and Soviets characterized the twentieth century.

In this chapter my aim is to outline not what the future will be, but the possible scenarios. Also, my aim is to frame the phenomenon of the Green Revolution in a political context, identifying energy as a basis for change because, as I have said many times, when you change the energy source that moves the world, the world changes with you. Even in this I cannot say which comes first, the chicken or the egg. That is, do you first change the economy or first change politics? What I do know is that they push each other in the same direction.

Food will change world politics

The balance of the second half of the last century was shaped largely by the strength of the big producers and major consumers of oil. The transition to new energy sources, or at least to reducing the role of oil, is already influencing the relationship among states. But there is another element that must be considered among the factors that will influence the policies of nations in just a few years:

population growth . . . but perhaps it is more suitable to use the term “population explosion.” Take the case of China, one of the powers that rules the world but also a country whose economy greatly suffers from the consequences of the baby boom. There will be 2.8 billion people added to the current number of inhabitants of the planet by 2050. Slightly less than half of them will be Chinese. In fact, China is already preparing to deal with the increase in the number of mouths to feed. How? By buying Africa. For example, Sudanese, Nigerian and Angolan oil, Zambian copper, the wood of the Congo, and the extensive agricultural lands of Ethiopia, Zimbabwe, Mozambique, and Kenya. The magic word will be “food”. Africa is poised to become the Chinese low-cost source of labor, raw materials, and manufactured products. India and the United States are also sitting at the banquet table while Europe, after having colonized and plundered the continent, leaves the scene.

I chose to talk about food in order to demonstrate that the major powers are preparing to face a future that will bring with it problems. The new challenges that lie ahead are not just technological or scientific–telecommunications, nanotechnology, medicine – but concern first of all survival. Among the primary challenges for survival is energy because if we continue like we are currently doing, we are doomed to extinction.

Changing our source and use of energy is therefore a matter of survival, and that change will form the basis of a new economic development that will determine new political hegemonies. If the United States remains a leader in the technologies necessary for the growth of the Green Economy, then the USA will guide the development of the world. If the country that already holds the record of accomplishment in the fields of medicine, information technology, and defense also takes the lead in the “green” gold rush, the gap that already exists between it and all other countries will become unbridgeable. This is especially true in the case of countries such as India and China, which will face a demographic boom not faced by Western nations.

Friends and enemies of the Green Economy

The competition is fascinating, and many are already in the starting blocks. Yukio Hatoyama, the newly appointed [in 2009] Prime Minister of Japan, a country that boasts the second highest GDP in the world, has announced that the Green Revolution will play a leading role within his program. President Obama, his

election due to the convergence between the Green Wave and the economic crisis, also has his green political agenda. But here too, in old Europe, [Angela] Merkel highlights in her [2009] election campaign the great development potential of the Green Economy. [Nicholas] Sarkozy in May 2009 brought together the two French houses at Versailles – which had not happened since the days of the Sun King – to announce solemnly their commitment to a new environmental policy. Another Frenchman, Daniel Cohn-Bendit, due to the electoral success of the Green Party in the last European election [2009], has already effectively spoken. In Great Britain, the Tory leader David Cameron [who became Prime Minister in May 2010], who in all probability will succeed [Gordon] Brown, has already launched its greens. We're talking about leaders who live in the present and have the pulse of the countries they are driving, but who must also prepare for their future. And the future of the world is the Green Revolution.

But do not forget that the journey is still long and that the “enemies” are all around us. The clique of oilmen and banks do not want to lose their power. They are on the prowl ready to betray us. The signals to watch for are already there. Some oil companies are beginning to establish projects for the development of renewable energy, so that they can ride the wave of change without being overwhelmed. Exxon, for example, on the occasion of the birth of their ad-hoc-created [renewable energy] division plastered New York with posters, as if to communicate the launch of a start-up. They're investing, but the relationship between investment in petroleum research and renewable sources is still very low – a 1 to 80 ratio. Progress has been made, but the real breakthrough is yet to come. The Arab states have taken advantage of the recession to buy our companies, although the recent economic crisis in Dubai may give rise to some doubt about their ability as entrepreneurs outside the boundaries of petroleum. However, banks, factories, and cinema, not having anything to do with oil, have become property of the oil states or their rulers.

General Motors, after their collapse and rebirth, has announced the launch of the new Colt hybrid by 2010 and Renault plans to market four electric cars by 2011.

Warren Buffet, the Wizard of Omaha, has recently invested \$230 million to acquire 10% of BYD [Build Your Dreams], a Chinese company that produces electric cars and lithium batteries – the new gold – essential for the storage of electricity produced from wind and solar. He also purchased the majority of the

largest U.S. railroad company, which is also essential for the transport of the future – by rail and no longer by highway.

The banks are still busy licking their wounds after the blow of the recession, but they're already back on the attack. All this is to say that the enemies are there and they are aggressive. But at the same time they begin to see new possibilities for themselves within the Green Economy.

As we have seen, the majority of political leaders have added touches of green, with its different shades, to their agendas, except in our beautiful country [Italy] where we could instead make a green economic recovery policy.

The program of Van Jones or the green agenda of Obama

In the USA an attempt to develop a green platform was created by Van Jones, founder and president of Green For All. He was chosen by President Obama as a special adviser for the environment. He abandoned the position after attacks on radical statements he had issued in the past on burning issues such as the involvement of the Bush administration in the events of September 11 [2001]. In *Green Collar Jobs*, a book written before the election that has profoundly influenced the programs of the 44th President of the United States, Van Jones suggests some fundamental points to create a green legislative agenda:

- Reopen international negotiations and establish a connection between trade policy and global warming – the U.S. must start over from the Climate Change Conference in Copenhagen to take an active part in the negotiations on climate change. They should also give a great weight to climate change in determining trade policy at the international level.
- Reduce greenhouse gas emissions through cap-and-trade investment strategy. The Obama administration will have to consider it a top priority to reduce emissions and work with Congress to approve comprehensive legislation to combat climate change. The Cap-and-Trade system puts a "cap" on the amount of greenhouse gases that a company may issue, and when it exceeds that amount, it must buy credits from companies that remain under the ceiling, so as to reward energy efficiency and the use of clean energy. According to the Congressional Budget Office the correct administration of this system would yield the national coffers between 100 and 300 billion dollars a year. This could be invested to finance the transition of the country to a green economy.

- Build a new “clean energy smart grid.” The U.S. power grid is old and inefficient. The president should give the country a “smart grid,” which can also carry the electricity produced from renewable sources, digitizing the supply of energy. The way it works should be guided by the Internet: a network of devices that communicate with each other to balance the demand and production of energy. In the first place, this would allow for the reduction of waste and in a reduction in emissions and costs. In addition, the project would create thousands of jobs.
- Invest in green jobs. In order to green the economy, skilled workers are needed. Financing green jobs and the training of Green Collars is essential to achieve the objectives.
- Increase the production of electricity from renewable sources. All sources of renewable energy must be exploited. The next administration should require that by 2025 at least 25% of energy should result from solar electricity, wind, biomass, or tidal. The creation of electricity used in heating is responsible, in fact, for more than 30% of U.S. emissions.
- Diversify the transport system, favoring rail. Fuel prices, pollution, traffic, and the contribution of emissions to climate change should push the President to invest in new means of transport for people and goods at local, regional and state levels – in particular, high-speed rail. The construction of infrastructure would create thousands of jobs.
- Stimulate the production of cars that consume less. The government should demand that auto manufacturers produce more efficient cars from the energy point of view and encourage consumers to buy energy-saving vehicles or those powered by alternative fuels. These measures would give a new impetus to the automotive market and reduce the U.S. dependence on fossil fuels. It is not a coincidence that Obama called on Marchionne of Fiat,³ virtually giving him Chrysler.
- Change eating habits. Today’s subsidies promote industrial farming practices, based on the use of pesticides, which are harmful to the health of the land and consumers. Federal policies and projects can instead push agriculture towards greater sustainability initiatives. Financial support would be available for companies that meet environmental standards, for those who want to switch to organic farming, engage in community

nutrition education, and provide microcredit for entrepreneurs who want to enter the agricultural market.

- Prohibit the construction of new coal plants that do not capture and store CO₂ emissions. It is necessary that government and individuals work together to fully develop the technologies to capture emissions from coal-fired power stations. It will take years. For this reason, in the meantime, the administration should prevent new plants from being built.
- Develop sustainable fuels to limit emissions. In order to reduce the use of fossil fuels the administration will require that by 2025 25% of the fuels used for transport will come from renewable sources. In particular, encourage the development of biofuels derived from non-food biomass such as switchgrass, agricultural waste, or wood. Make them available in every gas station.
- Cut the subsidies and tax breaks for oil and gas producers. The federal government annually invests billions of dollars in subsidies and tax breaks for the industry. This is money that can instead be used to support the development and commercialization of new clean and sustainable energy.

This is a large and complex program that in some parts resembles “points” made by Socolow and Pacala.⁴

The wave from the bottom, by the municipalities

But if it is true that the [Federal] government should take the leading role of the green wave, it is also true that it is at the local level that you play the real game of change. As I never tire of saying, the green revolution is a movement from the bottom. Therefore the agendas of local governments will play a leading role. Cities occupy only 2% of the Earth's surface, but consume 75% of the resources and produce 75% of the waste, including pollution. What happens in urban centers in the coming years will be able to save the planet. Or condemn it completely.

Van Jones tells how Chicago has become a green city thanks to the will of [former] Mayor Richard M. Daley. Even before climate change came to occupy the front pages of newspapers he understood the social and economic strength of green. The objective was initially to improve the quality of life and make the Windy City a better place to live, work, and create new businesses. But after the study of a team of climatologists funded by the city predicted that by 2095 the climate of Chicago

would become equal to that of hot and muggy Houston, Texas, the lens was extended to make sure that the cold Windy City remains competitive. So environmentalism joined the Daley agenda, responding to the prediction by launching a new challenge to reduce emissions by 80 % by 2050. The city launched a series of financial incentives to attract green businesses. The result? The city's economy has exploded.

The new companies have created jobs and have created the conditions for the emergence of companies that work in related industries. Furthermore, the marketing of green products was supported through funding to stimulate the inhabitants to make green shopping choices. An example? The city has offered to buy five million dollars' worth of materials for a solar panel manufacturer as long as it transferred its plant in Chicago. Today 99% of the company's workers are Chicagoans, and components to produce the panels are provided by local businesses. And those who want to install solar panels get loans and discounts.

Among the main initiatives are the Green Business Strategy and Greencorps. The first is a program that helps companies accomplish their "green revolution," giving rise to a social network that creates a flow of beneficial interconnections and trade. Greencorps was born to give new perspectives to the 20,000 former inmates of the Windy City that are freed each year by placing them in the workplace with jobs related to the Green Economy. Thanks to a partnership between government, companies, and non-profit organizations, ex-prisoners are offered the opportunity to attend a nine-month training course that provides paid internships and a placement service.

The Chicago case perfectly illustrates the strength of the combination of new standards, investments, incentives and innovation, and this example is resonating throughout the United States. More and more mayors and local administrations are establishing policies with the aim of improving the environmental, social, and economic needs of the community at the same time. The strength of the green revolution lies precisely in this: being just and "good" based on ideals, and also being a driving force for the economy. The Green Economy is destined to grow, creating not only new jobs but also new types of work. Can initiatives at the local level facilitate their development? Once again we look to Van Jones to provide an answer:

- Upgrade the energy efficiency of buildings. Every city should insist that new buildings apply the strictest standards of energy efficiency. No less important a task is to redevelop existing buildings. The administration should start with its own facilities, as a first priority. Only then should the same effort be required of all citizens, providing them with incentives and funding.
- Create Green Assessment Districts. Assessment Districts are well-known in the United States. How do they work? Here is a practical example: the inhabitants of a neighborhood want to redo the sidewalks of the area. By creating an Assessment District, the residents decide to pay an extra tax. The company carrying out the work is paid by the city through the money collected with self-taxation of the people involved in the project. Local administrations could therefore create Green Assessment Districts to finance, for example, the installation of solar panels on all the roofs of the city.
- Establish a CB (Carbon Budget). The government should determine the environmental impact of CO₂ emissions of all activities. Using this method, it would be easier to understand, for example, whether they "should" tear down a building to build a new one or start its renovation. To begin with, a city could establish the Carbon Budget of upgrading the energy efficiency of all public buildings.
- Establish new objectives: local sourcing, zero waste, renewable energy. Local governments can take the lead in projects to support the consumption of locally produced food, maximum waste reduction and the use of renewable energy. Even a light lunch may have caused massive CO₂ emissions if the food has traveled many miles before it arrives at the table. Increasing the percentage of local food production consumed by the inhabitants of the city means a significant contribution in the fight against climate change, and at the same time encourages regional agriculture. Programs for the drastic reduction of municipal waste and pollution create new jobs needed to recycle and reuse products and their parts that would otherwise end up in landfills. The government also may encourage the use of renewable energy, with funding and loans to citizens. These are just three examples of what local governments are able to do by setting new standards.

- Give birth to a new urbanism. Urban plans in the past have facilitated the escape from the centers to the suburbs, creating negative effects such as the disintegration of the urban fabric, the deletion of green spaces, and an increased use of automobiles. One possible solution is to create cities with centers where residents can live, work and find all the services needed, from shopping to leisure. An extensive public transportation system is necessary.

The structure of our cities and public transportation systems are at the center of the project to reduce emissions suggested by Nicholas Stern in his book *A Plan to Save the Planet*. According to Stern, Professor of Economics at the London School of Economics and Government and advisor to the UK Department for Transportation, in England traffic clogging the roads has a tremendous impact on time and energy efficiency and causes annual financial damages of seven to eight billion pound sterling. We must therefore take a sustainable approach to urban policy and transport policy for which Professor Stern suggests the following actions:

- Tax emissions.
- Tax congestion and encourage shared transport, for example with lanes reserved for cars with more passengers.
- Improve energy efficiency.
- Invest more in public transport, paying more attention to cost and efficiency.
- Encourage the use of bicycles, making it easier and more secure.
- Adjust the expansion of the city and transform the urban structure to ensure that the inhabitants do not have to use a car daily.
- Simplify the procedures to self-produce and sell energy to the electricity grid.
- Consider the possibility of combined distribution of heat energy.
- Encourage local entrepreneurial initiatives so that citizens have fewer miles to travel to the workplace, saving time and energy.
- Encourage and facilitate the recycling of waste.

As Stern points out, in order to implement these ten points collective action is required, but above all it is essential that there be strong public effort. It is in fact a

new organizational direction and approach for communities in which local governments will play a decisive role.

The Green Economy: a new opportunity for Italy

Let me make an autobiographical statement. In 1996, during my political career, I wrote a book titled *L' Italia Liberata [Italy Liberated]*, a kind of pamphlet on the possibility of development of our country in support of liberalization. Since then nothing has happened. I am not able to change the situation that I did not make, nor change people with a lot of power. We are a nation still without prospects. At one time we had tourism, but now we are down to 6 or 7 in the ranking of countries with an increased presence of visitors. We had a small business economy, which was launched as an impossible mission. Remember the district of the North-East? What happened? Where are the brave captains of industry? The large company, Fiat, left. A few others we were never able to attract.

In the 90s entrepreneurship was "sold" to foreigners. Take for example the large retailer Caprotti with his Esselunga, opposing the Coop.⁵ And...they fight among themselves like fighting cocks. Everything else in the hands of multinational corporations. It applies to every industry. As if in the last decade the whole of Italy thought, here there is no future, only worries, let's sell everything and sit back and enjoy it. A country without goals.

Forgive the radical nature of my judgments. It is not my intention to make an analysis of the Italian economic and political situation. I make these arguments just to frame the context in which you insert the true protagonist: the Green Revolution. When I started to get interested in the Green Economy I did not see prospects for our country. Today the advances of the green wave makes me see new possibilities. In other words, I believe that the Green Revolution may be the future of Italy, and perhaps provide the focus that is missing.

Our country is already green for its natural beauty, the art of the city, for thousands of villages on a human scale, and agricultural products for the kitchen. Among other things, we are the first in Europe for organic farming. We are green for the next Expo in Milan entitled Feeding the Planet [to be held in 2015], for the Slow Food movement, for the sea that surrounds us. For all these reasons Italy lends itself to be the flagship green nation if we can only make the importance of the objective understood and direct all the energies of the nation towards its achievement. In other words, the country is ready for a legislative green agenda. It

has no contraindications. In fact, the country needs it. We need our companies, small and medium, to find a new focus – and may find it in the Green Economy. Just encourage them.

This is not the place to go into that because it is necessary to insert projects into a more comprehensive vision that gives them substance and concreteness. This includes foreign policy where the Green Economy could be a development strategy. Until the fall of the Berlin Wall, Italy was a nation on the edge of the world beyond the Iron Curtain; a nation involved in a war (a cold war but still a war), with all the consequences that this implies so that even today we drag behind. We never really had a foreign policy independent of the line dictated by the United States. And after that? We tried to keep from riding on the foreign-policy bandwagon. And yet we still had to follow the USA uncritically. Today we are without a goal.

And the Mediterranean? It is not the *Mare Nostrum*. And is Africa destined to see its population grow by 100 % over the next ten years? That continent, across the Mediterranean basin, could be our salvation. We could make it our foreign-policy and economic development focus. This would make us the Green Economy country exporting our new green products to the continent that will have largest population growth over the next fifty years. Thereby we are combining development and sustainability. We can be the first to drive along a path that, sooner or later, everyone must take.

Translators' Notes

1. This article is a translation from Italian to English of Chapter 5 of the book *GO GREEN: il nuovo trend della comunicazione* (Bologna, Italy: Logo Fausto Lupetti Editore, 2010), pp 85-96. Translated by Matthew Kubik and Patrick Ashton and published with permission of the author and publisher. Text in brackets [] consists of annotations by the translators.
2. Diego Masi is an Italian entrepreneur and politician who has held a number of elected offices. He is a communication professional residing in Milan, Italy. He is past-president of *AssoComunicazione*, representing the major companies in the Italian communication industry.
3. Sergio Marchionne is an Italian executive widely known for his turnaround of the Italian automotive group Fiat and, more recently, for managing the U.S. automotive group Chrysler from bankruptcy to profitability after a bailout from the U.S. government engineered by President Obama.

4. Robert Socolow and Stephen Pacala are professors respectively of Engineering and Ecology at Princeton University, where they headed The Carbon Mitigation Initiative. In 2004 they published an article in *Science* which describes the development of climate change over the next fifty years.
5. Bernardo Caprotti is the founder of Milan-based *Esselunga SpA*, Italy's fourth-largest food retailer. He is a long-time opponent of Coop Italia which is part of a wider cooperative network that operates in many sectors of Italy's economy, including construction, manufacturing, agriculture, retail, social services and tourism. He accuses them of manipulating prices and stifling Essalunga's ability to expand. See <http://www.bloomberg.com/news/2013-02-12/italian-billionaire-surfaces-battling-kids-and-communists.html>

Author and Translators Biographies



Diego Masi is Chairman at Go Green Digital is an Italian entrepreneur, author, politician, and communication specialist. He is the past-president of the Italian communication industry organization AssoComunicazione. His book *Go Green* is a thorough discussion of the cultural, economic, and political issues of sustainability from the Italian point of view.



Patrick J. Ashton, Ph.D., teaches sociology and conflict resolution. He has been researching and writing about the interface between human community and the built environment for over 30 years. His publications include development of a paradigm for sustainability in the built environment, analyses of the political economy of suburban development, the impact of a large-scale plant closing on urban community, and the characteristics and dynamics of community organization. With Regina Leffers and Matthew Kubik, Pat recently co-authored the book *The Green Age: Transforming Your Life for the 21st Century*. Pat and Matt Kubik are founders and partners in the consulting firm Create the Green Age, focused on developing and facilitating democratic design dialogues around sustainability and regeneration of the built environment. Over the past several years they have been conducting sustainable design workshops in Europe and the United States.



Matthew Kubik, Architect, teaches courses in architecture, urban form, and sustainability. In 1975 he graduated from the Architectural Association School of Architecture, London, England with a masters level Graduate Diploma earned for his urban and architecture energy conservation research. He is the winner of two awards for Excellence in Architecture granted by the

American Institute of Architects. As a popular invited speaker he has given lectures nationally on sustainability in interior design, architecture and urban planning. With his colleague Patrick Ashton he presented a national live teleconference broadcast to over 60 university campuses. In 2005, Matt served as History Channel script consultant and was interviewed for the television program, Life After People-the Series. Since the 1970's he has been designing projects with minimum environmental impact as a design determinant. His portfolio includes earth sheltered housing, appropriate technology detailing, closed loop environmental systems, and passive solar architecture.