

# The Working Class, BioEnergy and Green Jobs

## Rethinking Philippine Industrial Relations

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### Introduction

This paper considers industrial relations as an integral part of a wider set of mutually reinforcing institutions which should promote employment growth, gain sharing and income distribution. The formal job market is basically dependent on contact centers, business processing, and outsourcing companies. The individualistic nature of the job discourages workers from representative active participation. Despite the deep seated changes in the nature of work and work relations, the 1974 Labor Code has yet to be amended. Usually, it is legislation which paves the creation of new institutions.

The informal sector has continued to prevail and this development constitutes a sharp departure from the traditional concept of work and its solid commitment to trade unionism and collective bargaining as the primary focus of worker expression. Class consciousness is not an exclusive product of the union movement. It is also a product of larger community institutions engaged in struggle (Budd and Bhawe 2006).

The study of industrial democracy is an integral part of the relation between capital, labor, and the state in that relationship. A significant collectivistic form of representation has taken place in Philippine society. The state, through the Cooperative Code and the Local Government

Code, has noticeably empowered the working class in this tripartite relationship.

With billions of pesos in deposits, the savings and credit cooperatives have paved the way to address basic services such as education, health, water, housing and livelihood. Those which are well capitalized in each province have been tapped to be partners of the *Bangko Sentral ng Pilipinas* (BSP) and local governments in providing credit surety funds to non-collateralized micro, small and medium enterprises. It is predicted that in ten years the financial centers in the provincial capitals will be cooperatives and not banks.

The electric cooperatives which number 116 have been mandated by the newly amended 2008 Cooperative Code of the Philippines to register with the Cooperative Development Authority (CDA). To date 17 have already done so (Vigare 2009). Once all electric cooperatives are registered with the CDA, an additional 8 million households will be added to the existing 4.7 million individual members, a total of 12.7 million. Usually, ten thousand members attend the general assembly of big cooperatives to elect their officials and decide on issues in settling both short and long term goals. The election is computerized.

There is very little work on wage inequality and poverty in relation to an industrial relations system which should be part not only of the equation in explaining the widening income inequality but also in strengthening the capacities of workers to participate in domestic market expansion, regional cluster cooperation, international trade development and management. There should be a broadening of the definition of industrial relations on empowerment, the environment, and market institutions.

The world of work has been changing quite significantly since the 1990s. This has produced substantial changes in the way employee relations have developed driven there by the adoption of flexible working practices, market forces and changes in values. Much of work has become fragmented and many workers transient. It is important to understand how work is translated into employment in accordance with the principles of equality and justice. In the search for new systems of representation in decision-making, a different dimension of industrial democracy has been experienced with various forms of cooperatives. To describe the national policy arena and processes on bioenergy and microfinance is to offer a

way of exploring industrial relations in terms of people's participation on models of enterprise management and green jobs.

## **Bioenergy policy and workers' potential in low carbon work**

In January 2007, Republic Act 9367 or the Biofuels law mandated the use of biofuels in the country (PNOC 2007). The first of its kind in Southeast Asia, the law seeks to reduce the country's dependence on imported, dollar-draining and pollution generating petroleum products. It requires the blending of coco methyl ester (CME) or coco diesel in diesel fed vehicles, or ethanol in gasoline fueled engines.

Biofuels are alternative fuels which are produced from the feedstock or organic sources that are renewable such as trees, crops and plant fiber. Bioenergy, that is, biofuels of biological and renewable origin like bioethanol, biodiesel and biomass for energy, is the subject of increasing attention around the world. It is grounded on the use of carbon neutral fuels to abate the impact of global warming. An early initiative is Republic Act 8749 or the Clean Air Act of 1999 which also provides the framework for the use of alternative fuels in motor vehicles. Biofuels include bioethanol, biodiesel and other fuels. Bioethanol is a light alcohol produced by fermenting sugarcane, corn, and cassava. Biodiesel is a renewable and biodegradable fuel extracted from plant oils. Its sources include palm, jatropha, and coconut.

The reduction in fuel consumption as a result of the enactment can save the country as much as \$2 billion annually if we shift from imported to locally produced diesel (Office of the President 2008). The country imports about 7 billion US dollars worth of oil and petroleum products, 25 percent of which is diesel. To date, the Department of Energy has accredited two biodiesel manufacturers: Senbel Fine Chemicals which has 54 retail markets; and Chemrez which has 56 outlets (Napocor 2006).

The most common use of biofuels is in automotive transport. With the possibility of diversifying energy resources and displacing large oil import bills, locally produced biofuels can reduce carbon emissions. At the same time there are questions about the role of fossil fuels in growing, transporting and processing the feedstock, and in refining and distributing biofuels. The response has been that this uncertainty can

already be addressed since commercial energy production from biofuels has undergone technological and economical transformation.

The conversion facilities in rural areas, close to where the feedstock is grown should increase employment and wages and ensure the sustainable use of local resources in the community. Energy crops have the potential to extend the land base available for agricultural activities and create new markets for farmers (Agbon 2008). These positive impacts in the dynamics of the rural economy should reduce the traditional exodus to urban areas and favor greater investment in rural infrastructure, health, and education. Coincidentally, the biofuels industries are also expanding in Europe, Asia and the Americas.

Bioenergy policy making involves as key players the National Biofuels Board of the Department of Energy and the Department of Agriculture (DA). The NBB is primarily tasked to require all entities engaged in the production, blending and distribution of biofuels to submit reports of their actual and projected sales and inventory as well as determine the availability of locally sourced biofuels.

The DA, on the other hand, has introduced a national program for the production of crops for use as feedstock supply to ensure productivity and sustainable areas for cultivation and production of biofuel crops. The food versus fuel debate is not that crucial given the fact that many of the areas being developed for feedstock production are mostly unproductive or marginal lands. Many of these lands have remained unutilized, hence, converting them into productive use for biofuels will actually increase value added agriculture.

The Philippines was the first country to use coconut as a source of feedstock for biodiesel. There are 3.3 million hectares planted to coconut trees (Canoy 2009). About 25 million farmers depend on the industry, 80 percent of whose products are exported and the remaining 20 percent consumed locally. Of the 79 provinces, 68 consider coconut as their major agricultural product.

In 2006, the coco industry earned one billion dollars with Mindanao taking credit for 58 percent of total production. It is observed that coconut fuel creates better combustion and tends to clean engine parts that come in contact with it, leading to lesser emissions and better mileage

especially for older engines. Moreover, in colder climates coco-diesel is able to adapt even below freezing point.

The Philippine National Oil Corporation and its subsidiary, the Alternative Fuels Corporation (AFC), have undertaken biofuels feedstock research to ensure the country's capacity to meet international standards. The AFC aims to bring the Philippines to the forefront of the global alternative fuels industry. The company's twin objectives are to meet the domestic needs for biofuels and to become a key player in biofuels in the Asia-Pacific region. It has made jatropha as its feedstock for biodiesel production. Jatropha is a non edible plant that grows mostly in tropical countries and can easily be propagated through cuttings and seeds. The production of biodiesel in the Philippines is projected to increase by 200,000 metric tons in 2009.

By 2012, AFC should have cultivated 700,000 hectares of biofuel crop plantations and generated one million metric tons of biodiesel (Ho 2007). With a ratio of one farmer for every two hectares, as much as 350,000 green jobs can be generated in rural areas with jatropha propagation such as Palawan and Mindanao. Women are encouraged at the village level to use extracted fuel from Jatropha for firing cooking stoves.

### **Bridging the gap between expertise for the few and knowledge for the rest**

Land and resource rights are significant aspects in bioenergy projects involving the cultivation of energy crops or access to natural biosources. Biomass is the main source of energy use for 3 billion people in the developing world and has been converted into electricity and heat in industrial plants (UNESCO 2006). Somewhere at the center of the debate on how to create jobs and sustainable development is the critical role of bioenergy and its efficient use.

The payoff from research and development is available and need only be diffused widely in a continuing effort to bridge the gap between expertise for the few and knowledge for the rest. Only an encompassing renewable energy movement can be expected to support long term policy commitments to foster proper structures and legitimize socially responsible behavior. If bioenergy is to capture the imagination of the working class it will not be because an enlightened minority finds its

logic attractive but because people in their daily lives find sense in such logic.

There are already signs that the power industry is changing in small ways. The last five years have seen an enormous upsurge in interest in clean energy from both environmental and economic points of view. For example, seven electric cooperatives in Western Visayas have entered into a joint venture for a biomass driven power plant. Even the transport cooperatives have moved to convert their engines to LPG. LPG, a byproduct of natural gas and crude oil refining, cuts cost by half the price of a regular diesel. It leads to much lower emissions of carbon monoxide and enables a vehicle to travel farther per liter.

The Philippines also has a potential installed capacity of 253.7 MW from bagasse (the fibrous residue remaining after sugarcane or sorghum stalks are crushed to extract their juice and is currently used as a renewable resource) resources (DOE 2009).

The impact of the global financial meltdown would disproportionately affect the very poor and the unemployed. State support for education is critical in supplying high quality manpower in the effective functioning of power grids and in fostering people's participation in energy poor rural areas.

An essential component of new development strategies is the growing recognition of cooperatives as key players since they constitute highly powerful actors in various communities. The government faces a formidable challenge in reconciling its emphasis on efficient energy and integrating people's right in democratic governance. The current emphasis on joint ventures should set an example by applying the standards of transparency, accountability, and participation.

Commercial banks have always financed large scale agriculture (Llanto 2001). The cooperative movement, on the other hand, has mobilized savings for the entrepreneurial rural sector. The 1997 National Strategy for Microfinance provided that for low income households and microenterprise to be able to access credit. The overall vision was for a regulatory framework to facilitate the role of the private sector in the provision of financial services. As a result, government, especially non-

financial line agencies, can focus instead on the creation of an enabling policy environment.

In 2000, the *Bangko Sentral ng Pilipinas* (BSP) was mandated by the General Banking Law of 2000 to recognize microfinance as a legitimate banking activity and to set the rules and regulations for its practice within the banking sector. The People's Credit and Finance Corporation (PCDC) has a micro energy credit program for adequate, affordable and reliable energy services.

There is no doubt that attention has been given to financing micro-bioenergy projects such as the planting of sugarcane, cassava, jatropha, and coconut. In 2004, a total of 305 billion pesos have been spent to 5.6 clients and created 2.5 million jobs (Office of the President 2008). Not only have the poor proven that they have the capacity to repay their loans and save, but that microfinance institutions can be operational and self sufficient.

The Development Bank of the Philippines (DBP) has a microfinance resource center for high value commercial crops financing as well as organic farming. The Land Bank of the Philippines (BP) has entered into an agreement with Marcela Farm for a piggery waste-to-energy conversion project. Both DBP and the LBP are members of the Association of Development Financing Institutions in Asia and the Pacific (ADFIAP), a United Nations accredited international organization of development banks frontline to institutionalize green banking practices. The LBP plans to give a special award to cooperatives and SMEs that demonstrate commitment to protecting the environment and impact-mitigating measures.

The working class should have full knowledge of the role of bioenergy in the development of local communities at large. And while energy and job creation differ in many respects from other conventional types of employment, there is opportunity for the dynamic agriculture sector. The Department of Environment and Natural Resources (DENR) program on the Upland Development Program (UDP) has two components in its emergency employment efforts under the green collar jobs program. Some 21,000 hectares of open lands within the country's watershed areas would be planted with fruit bearing trees and high value crops for the benefit of thousands of upland farmers. The other component is the Bantay Gubat

project where 59,000 qualified members of upland communities will be hired as short term forest guards to avert forest fires and illegal logging activities (Natavio 2009). A total of 54,425 upland farmers will benefit from the UDP program.

## **Green jobs as the future of the economy**

The Philippines aims to generate 20 percent of its energy from renewable resources by 2015 (Global Energy Network Institute 2008). The Renewable Energy Act of 2008 (RA 9513) promotes the intensive development, utilization and commercialization of renewable energy sources—geothermal, hydropower, biomass, solar, wind, ocean and other emerging energy sources. It recognizes the critical need to provide adequate and sustainable energy services.

Considered the most comprehensive renewable energy law in Southeast Asia, the Renewable Energy Act aims toward:

- A green pricing option to promote consumer choice of power supply;
- Allocation of a minimum amount of generation capacity from renewable energy;
- Promotion of the use of renewable energy hybrid systems and applications;
- Conduct of sustained information dissemination on renewable energy development; and
- Provision of financial and fiscal incentives to renewable energy developers and implementors.

Asia accounts for 27 percent of the world's energy related greenhouse emission. The World Bank is pushing for a Clean Development Mechanisms (CDM) program that encourages developed countries to come up with carbon reducing energy projects in developing countries (Andrade 2008). The CDM is a program under the Kyoto Protocol, a treaty signed by 169 countries to reduce carbon emission from fuel consumption by cars, power plants, and other industries.

The Kyoto Protocol encourages states and companies to reduce their emissions by recognizing carbon credits which they can sell. There are two primary markets for carbon offsets. In the larger compliance market,



companies, governments or other entities buy carbon offsets in order to comply with their emission caps. In the smaller voluntary markets, companies sell carbon credits to commercial and individual customers who are interested in lowering their carbon footprint.

While the rural poor are faced with new vulnerabilities, they also are faced with new opportunities. The green economy and the activist state should reveal new trends on how workers are able to gain real influence over technological change at work. There is great potential for carbon sequestration projects in the Philippines, primarily due to its biophysical condition and presence of land areas that could and should be reforested. There are millions of hectares in the uplands that pose ecological and economic threat. In finance, the rapid expansion of the agriculture frontier in investment indicates the entry of some very powerful foreign economic actors.

There is much to be learned by the working class in the management of collective knowledge and experience on the impact of new technology and bioenergy. People must learn to utilize indigenous renewable and sustainable sources of clean energy to mitigate toxic greenhouse gas emissions and increase rural employment and income.

President Arroyo has set a June deadline for local government units to comply with Republic Act 9003 or the Ecological Solid Waste Management Act. So far the country is about only 10 percent compliant but the president wants to increase compliance to 50 percent by June. Arroyo chairs the Carbon Cutting Coalition with 17 member agencies, including the Presidential Task force on Climate Change (PTFCC) which she created in 2007 under the supervision of the DOE and the DENR.

The PTFCC conducts rapid assessment of the impact of climate change on the country especially on the most vulnerable sectors like water, agriculture, coastal areas, as well as terrestrial and marine ecosystems. The PTFCC also ensures strict compliance with air emission standards and acts with urgency to combat deforestation and environmental degradation.

•In 2004, the Payatas dump was converted into a controlled waste disposal facility and equipped with a biogas plant. Since assuming the title of environmental czar, Arroyo checked various municipalities and towns

regarding their handling of garbage which is a major source of methane, a lethal greenhouse gas.

Carbon trading is similar to the exchange of securities and commodities where carbon is given an economic value. In 2000, the NorthWind Power Development Corporation was established. In 2005, the first 25 megawatt (MW) wind farm in Bangui Bay was introduced (Klima Climate Change Center 2005). In June 2008, NorthWind added five more turbines and raised the wind farm's capacity to 33 MW, enabling the company to provide half of the province's power needs. The World Bank's carbon finance program catalyzed the emergence of the carbon market which allows the sale of carbon emission reduction credits under the CDM of the Kyoto Protocol.

There are 23 CDM projects registered with the CDM Board of the Philippines (DENR, 2009). A number of them deal with agricultural wastes and renewable energy alternatives to fuel. The Community Development Fund is also being accessed in the context of initiatives on composting, wastewater treatments, and agro-forestry. The communication media must play an important role in building bioenergy awareness into the popular culture. A meaningful assessment of the social consequences of a green economy begins with the fact that the very success of NorthWind opens up new choices for the working class.

## Conclusion

Democratic participation is a cumulative process of change. Its salient characteristic is its dynamic nature. The program on bioenergy is a springboard for the working class to build a sound economy for the future without compromising productivity and modernization. Workers can take up the challenge of green jobs, over and beyond the traditional representation of their interests by developing new perspectives and strategy.

A massive cultural change is underway on the issue of global warming the world over. More and more people and institutions are joining the green movement and they are bound to bring changes to lifestyles and work relations. Industrial relations must not only nurture the struggle against inequality but must promote the creation of new institutions. In order to foster dialogues, there is need to generate multiple spaces in which to concentrate initiatives and push joint efforts.

Technological breakthroughs open up the possibilities of new and powerful struggles, organizations and negotiations. Alliances that may be forged and solutions adopted can pave the way for an articulation of collective projects. Who knows, by engaging in these projects the majority can finally find its voice.

## Notes

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