

Fueling Discord, Degrading the Environment: Agrofuel Expansion in Mindanao, Philippines¹

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Abstract

Biofuel's role as a viable and sustainable alternative energy source to address the challenges posed by climate change and industrialization is currently being questioned. In the Philippines, its promotion centers on its potentials in contributing to the country's economic development. The paper adopts the term agrofuel instead of biofuel as this aptly describes the monocrop, agribusiness nature of investment initiatives in Mindanao. It suggests that the market orientation of existing policies and initiatives for agrofuel production further expands the influence of the global commodity system over agricultural lands devoted to food production and ancestral domains in Mindanao. They present threats against the poor's control over the use and management of natural resources while benefits for affected communities remain uncertain.

Introduction

Arguments abound whether agrofuel production indeed helps to combat climate change. What seems apparent is that the search for alternative sources of energy underlines the disparity between countries in the North and South in terms of who shoulders the social and environmental costs and who profits from benefits derived from this global interest for cleaner and cheaper energy source (Carbon Trade Watch/TNI 2007; Friends of the Earth 2008). The paper adopts the term agrofuel over biofuel to emphasize the manner by which investors expand their production activities in Mindanao, through conversion of agricultural and ancestral lands into monocrop and large-scale agribusiness plantations.

The use of agrofuel as alternative to fossil fuel is seen to help cut down the cost of fueling the needs of industrialized societies in the North (European Commission 2006: 6; Ethnic Community Development Forum 2008; Friends of the Earth 2008: 3). Transnational corporations participate in efforts to discuss the issue in public forums and to set standards for self-regulation (EPFL-EC 2007). At the same time, they continue their search in the South for available lands to supply their agrofuel needs. The United States for instance sources its needs for ethanol from Brazil and other Carribean countries (Friends of the Earth 2008: 3). This is considered an opportunity for economic growth in the South, their abundance in natural resources being their comparative advantage (AFRIM 2009a). In the Philippines for instance, the state sets in place institutional arrangements to facilitate easier market access to its resource rich areas for agrofuel crop production.

¹ This paper was presented during the 6th Cagayan Valley Programme on Environment and Development (CVPED) International Conference on Environment and Development held on 1-5 June 2009 in Isabela, Cagayan Valley Region, Philippines.

This paper is based on an ongoing research by the Alternate Forum for Research in Mindanao (AFRIM) on agrofuel expansion in Mindanao. The first part describes the methods adopted in conducting the research. The succeeding parts trace the development of plantation agriculture in Mindanao and relate this to the current initiatives for agrofuel promotion in the island. The resulting issues from plantation expansion activities for agrofuel crops in Mindanao are also analyzed. The paper argues that these further expand the influence of the global commodity system over agricultural lands devoted to food production and ancestral domains in the island. The affected communities bear the costs, outweighing the promised benefits they have yet to gain. It is substantiated by findings from the various case studies done by AFRIM, which identifies the effects of production of agrofuel crops on the island's natural environment, people's food security and their access and control over resources.

Methods

This paper is a result of qualitative research that seeks to analyze how expansion of plantations for agrofuel crops affects the environment as well as food security and access and control of communities to their resources. The research involves the use of case study and a combination of methods to gather secondary and primary data. Methods used for gathering primary data are semi-structured interviews with key informants and focus group discussions (FGD). AFRIM's ongoing research targets six areas for case study in Mindanao. The paper refers to results from three case studies done in Central and Northern Mindanao, covering selected areas such as the provinces and cities of Bukidnon, Sarangani, South Cotabato, Cagayan de Oro, and General Santos.

The areas were chosen based on reports that AFRIM received from its partner NGOs and peoples' organizations that are monitoring expansion activities in the said areas. On the average, 10 key informants were interviewed and one FGD composed of 10 participants was conducted in each area. The respondents comprised of community leaders as well as men and women farmers who have signed contracts with the investors.

Cognizant of the need to gather information from other sources to substantiate and cross-check what was gathered from the field, the views of other stakeholders such as the investors and local government officials were also gathered during the course of data gathering. Officials of ECO Global Bio-Oils, Inc. (EGBIO), a large investor in Central Mindanao and local governments were interviewed. The paper also referred to official documents from various government agencies as well as published and unpublished materials on the subject. These were gathered from library and internet sources.

Results

Developing a Plantation Economy

Liberalizing the exploitation of Mindanao's natural resources has been the state's worn-out strategy for 'developing' the island. The establishment of agribusiness plantations is but one of

the ways in which Mindanao has been integrated into the global commodity system (Balbin & Clemente 1986: 3-51; Gloria 1989).

Since the 1920s, Mindanao has served as the agribusiness hub of the country, such that in the early 1980s, the island was the source of up to 40 percent of the country's land devoted to export crop production (Hayami et al 1987; 6-8; Gloria 1989). It follows that the country's export earnings rely on Mindanao. Coconut remains the top export earner in the country. Some 60 percent of production of this crop comes from Mindanao. Presently, Mindanao hosts plantations owned by transnational corporations for production of export crops such as banana, pineapple, rubber, and oil palm. These investments were developed and are still operated by transnational corporations through agribusiness venture arrangements that include among others, joint-venture, lease, and contract growing.

Development of the said plantations exacted social and environmental costs. These are characterized by displacement of communities particularly that of indigenous peoples, environmental destruction, and conflict between stakeholders. In response, the state used military solution to address these since the lands were deemed government-owned and the indigenous peoples considered as squatters on their own land (Gatmaytan 2001: 22). The entry of Del Monte Corporation in pineapple production in the 1920s and the setting-up of various banana and oil palm plantations beginning in the 1970s followed this blueprint (AFRIM 1984 and 1986; Balbin & Clemente 1986; De Leon & Escobido 2004; Deriquito 2005; Gloria 1989).

The development of the oil palm plantations of the National Development Corporation-Guthrie Plantations, Inc. (NGPI) and the National Development Corporation-Guthrie Estates, Inc. (NGEI) in Agusan del Sur in the 1980s illustrates these issues:

“Upon acquiring vast tracts of land by virtue of presidential proclamations, the National Development Corporation (NDC) proceeded to sign joint venture agreements with foreign and local corporations...

Despite the discovery that majority of the land was titled and occupied by marginalized tribal Filipinos and farmer settlers, the NDC-Guthrie collaboration continued to appropriate land. This was accompanied by employing force and deception: force through the paramilitary Lost Command (LC) which intimidated farmers into selling or vacating their lands, and deception through promises it has never fulfilled” (AFRIM 1986: 32-33).

In the 1990s, the oil palm project of a local company, Janoub Holdings, and its Malaysian partner Tabung Haj followed a similar path. Development of the 1,000-hectare plantation was supposedly a compromise in exchange for the surrender of former MNLF commander Abukahir Alonto. In the process, the land rights of the Higaonon, an indigenous peoples' tribe, were violated:

“In the haste to bring back the rebel-commander to the fold of government, the project stepped into a land that had been occupied and claimed by the Higaonon in the Lanao del Sur-Bukidnon area. Despite the resistance of the indigenous peoples, the project pushed through, employing the divide-and-conquer rule. While part of the tribe opposed the project, those who were convinced were hired by the company” (AFRIM 2002: 5-6).

Agrofuel Expansion

A similar track can be observed with the ongoing expansion of plantations for agrofuel crops in the country. Responding to the global demand for agrofuel is being heralded as an engine for economic growth while addressing the challenges posed by climate change. In 2006, Republic Act 9367 or the Biofuels Act of 2006 was enacted in an aim to lessen the country's dependence on fossil fuel by promoting the gradual use of biodiesel and bioethanol. The law likewise outlines the promotion of investments for agrofuel production, through among other, tax incentives and financial packages extended to investors.

In relation to this, the market orientation of existing policy frameworks for land redistribution allowing for long-term investment contracts in distributed lands facilitate the entry of foreign investors. Following the World Bank prescription for market-led land reform, the Comprehensive Agrarian Reform Law and the Indigenous People's Rights Act include provisions permitting the beneficiaries to enter into business agreements for a 25-year period, renewable for another 25 years. While selling of distributed ancestral domains and lands is not allowed, entering into business contracts for a period of up to 50 years is virtually equivalent to selling of lands and giving up access and control over use and management of land and other resources.

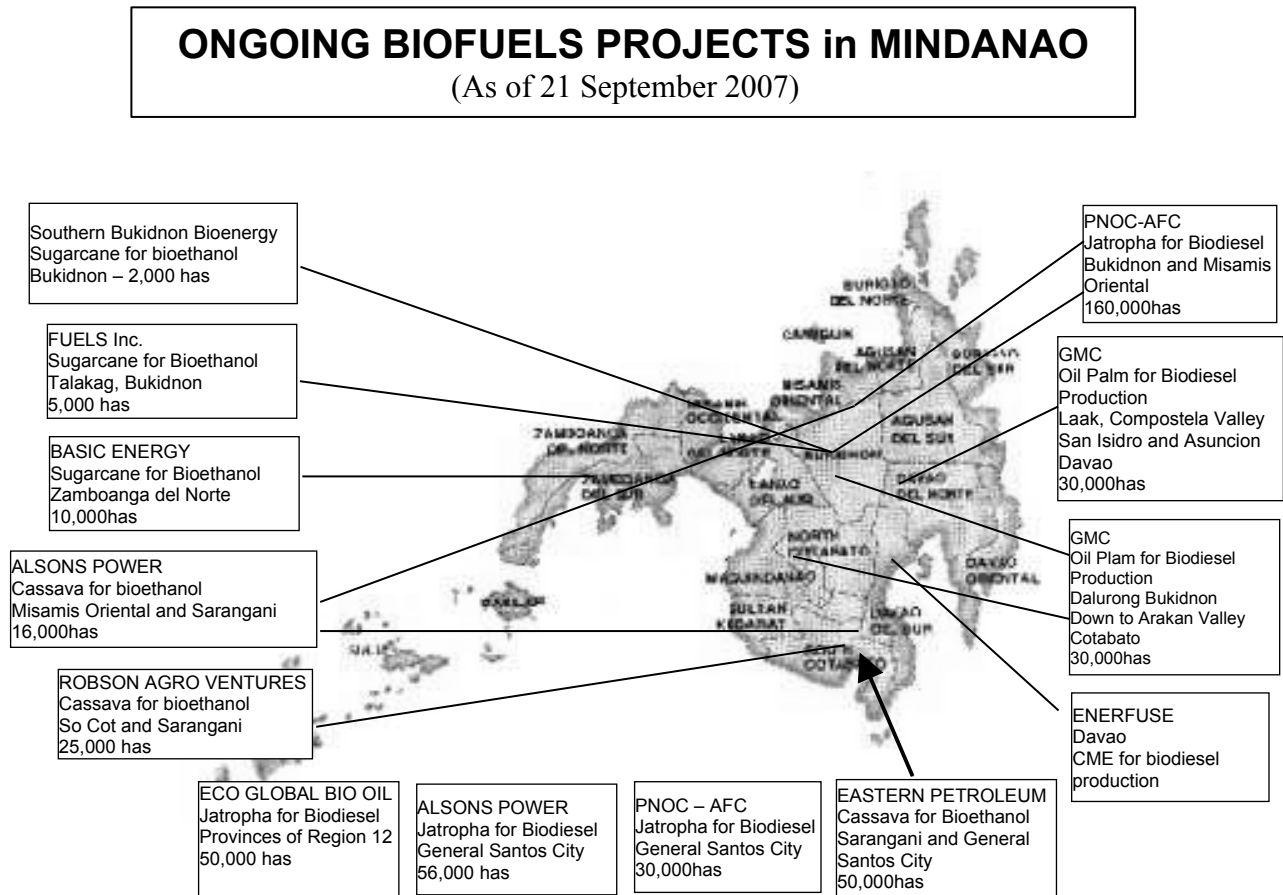
The easing of environmental and financial regulations also facilitates further expansion of investments. Oil palm for instance, has been reclassified as a reforestation crop. Automatic approval of applications for environmental clearance certificate is now possible should the Environmental Management Bureau fail to decide on applications within a set timeframe. In addition, loan packages from the Land Bank of the Philippines are made attractive. Financial subsidies made available to investors are sourced from various official development assistance projects (AFRIM 2005: 10-12).

True to its skewed development strategy, the state has again placed Mindanao as first in line for exploitation, notwithstanding the clear threats to its wealth of natural resources and position as the Philippines' food basket. Seemingly in consonance with the Medium Term Development Plan, more than two million hectares of land have been committed nationwide for agrofuel crop production based on bilateral agreements signed with interested countries such as Spain, India, Malaysia, and China. Already, some 430,000 hectares have been identified for cultivation in Mindanao alone, the Northern and Central Mindanao regions being the priority areas for expansion. This is but 33 percent of the overall target of 1.3 million hectares in Mindanao. Around 250,000 hectares or 60 percent of this are eyed for development in Central Mindanao while approximately 160,000 hectares are intended for jatropha production in Northern Mindanao (AFRIM 2009b).

Some 23,000 hectares are currently planted with cassava, predominantly found in Bukidnon although not everything is devoted to agrofuel production. Another 38,000 hectares are reportedly targeted for expansion in Northern Mindanao. On the other hand, around 16,000 hectares in Bukidnon are supposedly identified for sugarcane production for use as bioethanol (DA 2008; DA-NOMIARC 2008). In Central Mindanao, the actual area covered by agrofuel crops such as cassava, sugarcane, jatropha, and oil palm is around 35,000 hectares. In CARAGA region, some 18,000 hectares have been converted for production of agrofuel crops while

approximately 5,000 hectares are in the Autonomous Region of Muslim Mindanao (ARMM) (*ibid*).

Figure 1



Source: Department of Agriculture, 2007

A number of the investors listed in Figure 1 have clear ties with foreign companies. Basic Energy has agreements with the Canadian company Nexum Evergy Corporation and a German company, MAN Ferrostaal Industrieanlagen GmbH. ECO Global Bio-Oils, Inc. (EGBO) is a subsidiary of the Korean company ECO Solutions. Its jatropha plantation and oil extraction projects plan to supply its biodiesel plant in Malaysia. Eastern Petroleum on the other hand has signed a joint venture contract with the Chinese company Guanxi Estate Farms (AFRIM 2009b).

In the areas covered by the research, the Philippine National Oil Company-Alternative Fuels Corporation (PNOC-AFC) has been identified as a major investor. The company is mandated under the Biofuels Act of 2006 to “explore, develop, and accelerate the utilization and commercialization of existing and emerging alternative sources of energy and technologies and carry on the business of alternative fuels” (AFRIM 2009a: 3). PNOC-AFC uses hybrid jatropha varieties currently supplied by D1 Oils Plc, a London-based company which began operating in

Mindanao in 2005 (*ibid*: 7). In 2007, the company announced its initiatives to develop some 1.2 million hectares for jatropha production (LBP 2008). It recently forged a \$1.3 billion contract for jatropha production with the UK-based bioenergy technology provider Natural Resources Group Chemical Engineering Pte Ltd (PIA 2007).

Foreign control of agrofuel production is likewise evident in Sarangani Province, South Cotabato, and General Santos City. Jatropha production for export is spearheaded by EGBO. More than 10,000 hectares of land currently under contract with the company in the said areas are in various stages of development and production. EGBO also reportedly plans to expand its Mindanao operations to cover 300,000 hectares, at least 50,000 hectares of which will be located in Central Mindanao or the South Cotabato, Sultan Kudarat, Sarangani, General Santos (SOCKSARGEN) region. These plantations are projected to supply the planned refinery plant that will produce crude oil for export to Malaysia (EGBO n.d.).

What raises concern is that the targeted provinces contribute significantly to the island and even the country's food supply. Bukidnon is a key rice and corn producing province in Mindanao. South Cotabato produces 65 percent of the country's corn supply. Maguindanao and Lanao are the major corn producers in the ARMM while Maguindanao is the 5th highest contributor to Mindanao rice production. Targeting of these same areas for production of agrofuel crops clearly threatens food production.

Contrary to public pronouncements that marginal lands are targeted for expansion, the case studies show that productive agricultural lands devoted to food production and ancestral domains of indigenous peoples with existing titles or land claims are the actual expansion areas. In Sarangani and South Cotabato for instance, farmers under contract with EGBO for jatropha production used to rely on corn, coconut, and various vegetables for their food supply and sources of income. In Cagayan de Oro and Bukidnon, the indigenous community of the Higaonon produced white and yellow corn, cashew, vegetables, banana and coconut prior to the conversion of their ancestral domain into jatropha plantation.

Expansion activities likewise threaten protected areas such as the Liguasan Marsh in the ARMM and Mt. Kitanglad Natural Park in Northern Mindanao. The diverse natural resources in ancestral domains are endangered because of land conversion. This has possible effect on the quality and quantity of water from watershed areas especially that production of export crops rely on chemical-based inputs. Ironically, agrofuel crops purportedly planted to mitigate climate change may cause the destruction of biodiversity and vital natural resources. The natural environment likewise represents many aspects of the culture and tradition of indigenous communities, which are violated due to land and crop conversion. In Cagayan for instance, the expansion activities of PNOC-AFC reportedly touched on a number of sacred grounds of the Higaonon.

The case studies likewise show that negotiations for agribusiness agreements covering the expansion areas illustrate the power asymmetry between investors and communities. The entry of agrofuel investments led to the communities' loss of access and control over their land and resources.

In the case of PNOC-AFC, contract growing is the favored arrangement. With contract growing, production risks are shouldered by the farmer. Signing 25-year contracts with 40 Higaonon farmers in Lumbia, Cagayan de Oro, the company reportedly only negotiated with three *datu* (tribal leaders), circumventing the process of acquiring the free, prior, and informed consent of the tribe members as required under IPRA. The company supposedly offered to provide free seedlings and shoulder farm labor costs as the sole buyer of the farmers' produce. In addition, the farmers were also promised employment in the plantation as well as technical assistance and livelihood enhancement activities. Initially, the company developed 65 hectares for jatropha production. After only a month into operation however, the project reportedly closed down, leaving unpaid wages and a host of other problems for the community. The Higaonon were left without a buyer for the jatropha planted on their once productive land devoted to food crops. They could not enforce the contract and demand that the company honor the contract or pay the wage claims and damages caused by land conversion. The community could only blame the local government that promoted jatropha production in the community and ban PNOC-AFC and the Tribal Communities' Association of the Philippines, which introduced the company to the tribe.

In SOCKSARGEN, joint venture arrangement is being promoted by the EGBO, promising to provide financial and technical assistance to landowners who would be in-charge of planting and farm maintenance. According to key informants in a Pag-asa, Alabel in Sarangani where 420 hectares of jatropha are currently under contract with EGBO, the company likewise committed to implement free livestock dispersal, provide a daily wage of PhP200 and one sack of rice a month for farmers employed by the company. While their contracts state that they could intercrop, the farmers were allegedly forced by technicians to convert all their farmland for jatropha production. The promised PhP200 daily wage was also said to have been reduced to PhP100. Interviewed farmers shared that the company also failed to deliver on its promise of free livestock dispersal. As in the case of the Higaonon, the farmers could not enforce the joint-venture contract. In both cases, the farmers said that they were not given copies of their contracts nor did they receive assistance from government agencies during negotiations and even after they experienced problems in contract implementation.

Discussion

The ADB (2009) says that Asian countries' reliance on agriculture for livelihoods and dependence on natural resources make them vulnerable to climate change. Further liberalization of resource use in Mindanao brings this risk closer to reality with the aggressive expansion of plantations for production of agrofuel crops. Export crop production has time and again been promoted as a profitable venture but potential economic benefits are by far outweighed when social and environmental costs are considered. The promised economic benefits remain out of reach for the affected communities while food and tenure insecurity become reality. Experiences in Mindanao show that without addressing power asymmetry in contract negotiation and enforcement, benefits accruing from agribusiness venture arrangements would remain one-sided in favor of investors.

Past and present trends in agribusiness promotion show a marked difference. In the past, stronger state role was evident. Military force was used by the state to displace communities before entering into joint agreements with transnationals. Market orientation is strongly emphasized and promoted at present with land redistribution policies providing clear property rights and enforcing institutional arrangements that ensure easier market access to distributed agricultural lands and ancestral domains. Agribusiness arrangements are offered and negotiated between investors and communities, the state relinquishing its role in protecting the rights of communities as well as its role in natural resource protection and management. Titled ancestral domains are particularly attractive as investors only need to negotiate with tribal leaders to gain access to large contiguous lands, circumventing traditional decision-making processes.

The case studies show that expansion of plantations for agrofuel crops pursues the direction of the island's decades-old experience in expansion of monocrop and large-scale agribusiness plantations, the difference being the increasing role of the market. Its threats to the food security of affected communities and provinces, environmental degradation and people's loss of access and control over their land and resources are already apparent. This paper raises the following concerns along these lines:

■ Framework for natural resource management

The paper suggests that state policies and initiatives for agrofuel production subscribe to "economic rationalism" (Dryzek 2005) that advances market mechanisms to address environmental concerns. Agrofuel production purportedly will contribute to climate change mitigation and bring down industrialization costs. Experiences on the ground, however, prove that this current drive to maximize utility of the environment for economic development further causes environmental damages. Indigenous peoples' ancestral domains are considered marginal lands despite their rich biodiversity and economic, social, and cultural importance to the communities.

A framework for natural resource management should acknowledge that it is a "negotiated political process" (Thomas et al 2005). Addressing the need for economic growth and environmental protection requires recognizing the role and interests of various stakeholders but especially the poor marginalized communities affected by investments. Community-based options should be explored instead of placing at risk communities' access and control over their land and resources causing conflicts and a gamut of problems in the process.

■ Mutually beneficial agri-business contracts

Politics between stakeholders extend to negotiations for agribusiness venture arrangements (AVA). Power imbalances are evident in relations between foreign and local investors on the one hand and affected communities on the other. Farmers and indigenous peoples are often financially in need and generally unaware of requisites in business agreements which make them vulnerable to maneuverings of unscrupulous investors. Communities' access and control over their resources are violated when genuine FPIC process is not followed and when long-term investment contracts are entered into by communities.

It is important that farmers and indigenous communities be educated on the nature of AVAs and assisted during negotiations to ensure that they enter into mutually beneficial contracts. The state's regulatory role should be strengthened. This has been proven possible by agrarian reform beneficiaries (ARB) comprising the Kenram Agrarian Reform Beneficiaries Multipurpose Cooperative (KARBEMCO) in Sultan Kudarat in Central Mindanao. The cooperative now manages the oil palm plantation awarded them under a renewable 5-year marketing agreement with the former owners. Best practices can likewise be seen in a number of distributed banana plantations in Southern Mindanao individually titled to the ARBs and operated collectively by their cooperatives.

■ Protection of existing agri-based industries

Cashing in on the booming industry of agrofuel crops is another indication of the state's reactionary response to market trends instead of focusing on its advantage in existing agri-based industries. This has been the country's strategy, from abaca production before the 1950s, banana production in the early 1960s, and high value crops promotion like asparagus in the 1990s. Currently, investment hype is on agrofuel crop production. Production of the said crop in Mindanao is controlled by transnational companies, supplying hybrid imported varieties.

Coconut is the country's highest earning agricultural export and a viable source for biofuel. The country therefore should not abandon its global leadership on coconut and should develop markets for biofuel from this crop. As the top producer of coconut, Mindanao farmers would highly benefit from this endeavor. Food security issues surrounding agrofuel crop expansion would also be avoided because intercropping with food crops is already practiced in coconut farming areas.

■ Implications of land conversion

As stated earlier, the ongoing land use conversion threatens food security particularly in food producing provinces that have decided to promote industrial crop production. The state's food security framework seems to focus on food availability and importation as the solution to shortfall in production. This disregards the people's right to decide on what food to access and how to access them. The rising population is another good reason that should discourage the country from relying on imports for its food needs. Dependence on imports makes local food prices and supply vulnerable to global market behavior.

It is argued that in the Mekong region and Nepal, food security of smallholders is not affected despite the competition for resource use between biofuels and food because community-based initiatives for domestic needs are promoted for production of the former (SNV-WWF 2009). In Mindanao, agrofuel production targets the global market. Food production for household consumption is generally practiced in rural households but the agribusiness nature and export-orientation of the contracts for agrofuel crop ventures prevent farming households from planting food crops on their land. The people's rights to access and produce nutritious and safe food are curtailed under present agribusiness arrangements. Immediate loss of income from land use conversion has been felt in communities thus limiting their ability to secure their food

requirements. Also, work and skills requirement in plantations limit employment opportunities for the poor, especially women. Farmers going into business arrangements may benefit from higher commodity price for agrofuel crops in the future. However, the possible increase in prices of food crops due to shrinking areas devoted to food production would affect the poor majority.

Food safety should also be another concern. Organic farming for large-scale production would be costly and thus not profitable. Application of chemical-based inputs in plantations for agrofuel crops maximizes the areas for production. This puts pressure on water sources of affected communities, such as in the case of the Higaonon in Cagayan de Oro. Watershed areas are found in forested zones, mostly populated and claimed as ancestral domains of indigenous peoples.

Land use conversion in favor of plantation expansion for agrofuel crops may also intensify unequal power relations between men and women and lead to denial of women's land rights. Literature on plantation expansion in Africa during colonial times and market-oriented land tenure reforms in Africa and Latin America show evidence of women's marginalization as a result of export crop promotion (Brunt 1992: 119-131; Deere & Leon 2001; Mackenzie 1995; Mamdani 1992: 203; Rangan & Gilmartin 2002). In the Philippines, Subanen women in Zamboanga were displaced from their farms with the introduction of commercial logging and export crops in their areas (Alegre 2004). These should therefore serve as lessons to communities in Mindanao hosting agribusiness plantations like those devoted to agrofuel crops.

Through the experiences of communities in Mindanao, this paper contends that the bright future in agrofuel crop production that is espoused by the state and investors remains a distant possibility for affected communities. The pursuit of development should not relegate to the margins social and environmental concerns. The country would benefit from its participation in markets for agrofuels by strengthening its comparative advantage in local agri-based industries through sustainable approaches rather than reacting to global trends. Reforms in existing policies and strategies through a framework of gender responsive community-driven natural resource management are essential to ensure accrual of benefits for the poor and marginalized communities in agricultural lands and ancestral domains.

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