

REFUELING BIOFUEL LEGISLATION: INCORPORATING SOCIAL SUSTAINABILITY PRINCIPLES TO PROTECT LAND RIGHTS

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ABSTRACT

Both the European Union (EU) and the United States (US) recently enacted legislation mandating an increase in biofuel production. Both pieces of legislation address environmental sustainability in biofuel production by mandating the use of advanced biofuels, which reduce greenhouse gas emissions below levels associated with traditional fuels. However, neither piece of legislation adequately addresses the social implications of increased biofuel production. Concern for environmental sustainability alone is insufficient. Both the EU and the United States should adopt functional social sustainability principles into their legislation to protect the social and cultural land use rights of local communities affected by biofuel production.

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INTRODUCTION

Biofuel production is a dynamic process requiring large land concessions around the world. The conversion of land into biofuel plantations implicates a diversity of cultures, histories, economies, and knowledge bases tied to land use in various countries.¹ Political entities around the world, including those in the United States, the EU, China, India, and Brazil, have recently enacted compulsory biofuel production goals.² The most recent biofuel mandate in US legislation was included in the Energy Independence and Security Act of 2007,³ and the implementing rules developed by the Environmental Protection Agency (EPA) issued on March 26, 2010.⁴ In the EU, the most recent biofuel mandate was the European Union Directive on Renewable Energy passed in 2009.⁵ Member countries had until December 5, 2010, to implement the legislation in their own nations.⁶

The demand for cropland created by renewable fuel mandates is forecasted to be unprecedented, both in terms of the supply of land required and the duration of the demand into the future.⁷ By 2020, developed countries will be forced to import large quantities of biofuel to

¹ LORENZO COTULA ET AL., *FUELLING EXCLUSION? THE BIOFUELS BOOM AND POOR PEOPLE'S ACCESS TO LAND* 6 (2008) (stating land has cultural and political significance).

² *Id.* at 9.

³ 42 U.S.C.A. § 7545(o) (West Supp. 2011).

⁴ 40 C.F.R. § 80 (2010).

⁵ Directive 2009/28, of the European Parliament and of the Council of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources, 2009 O.J. (L 140) 16.

⁶ *Id.* art. 27, at 44.

⁷ COTULA ET AL., *supra* note 1, at 7.

meet their blending mandates.⁸ By 2016, production of corn ethanol to meet US fuel mandates alone will require corn production on 12.8 million hectares of land in the United States.⁹ U.S. biofuel production will also require the conversion of 10.8 million hectares of land in Brazil, China, India, and the United States.¹⁰

Germany will also be forced to outsource most of its biofuel production.¹¹ In 2007, less than half of the biofuel consumed by Germany was produced domestically.¹² According to German officials, the plan for the near future is to further reduce domestic production and meet the increased demand by purchasing foreign produced palm and soy oil.¹³

The international land use implications stemming from mandates for increased biofuel production in developed nations will not be borne equally among geographical regions of the world. For biofuel production to occur, there must be arable land on which to plant biofuel crops.¹⁴ Admitting that even the most detailed and technologically advanced large-scale studies of available arable land are subject to wide margins of error,¹⁵ studies still clearly show that land available for biofuel crop production is disproportionately located in Africa and South America.¹⁶ Africa and South America contain approximately eighty percent of all available agricultural land.¹⁷ Within these continents, approximately half of that agricultural land is located in only six countries: Angola, Democratic Republic of Congo, Sudan, Argentina, Bolivia, and Colombia.¹⁸

The social sustainability concerns associated with increased biofuel production include increased food costs, food insecurity, land use violations, poor labor conditions, and poor economic remuneration for local farmers.¹⁹ However, this paper will focus more narrowly on the land

⁸ *Id.* at 21.

⁹ *Id.* at 19.

¹⁰ *Id.*

¹¹ Jennifer Franco et al., *Assumptions in the European Union Biofuels Policy: Frictions with Experiences in Germany, Brazil and Mozambique*, 37 J. PEASANT STUD. 661, 679 (2010).

¹² *Id.*

¹³ *Id.*

¹⁴ COTULA ET AL., *supra* note 1, at 19–21.

¹⁵ *Id.* at 21.

¹⁶ *Id.*

¹⁷ *Id.* at 20.

¹⁸ *Id.* at 21.

¹⁹ Stephanie Schlegel & Timo Kaphengst, *European Union Policy on Bioenergy and the Role of Sustainability Criteria and Certification Systems*, 5 J. AGRIC. & FOOD INDUS. ORG. (SPECIAL ISSUE), no. 2, art. 7 at 6, 10 (2007).

use rights of local and indigenous communities, which are threatened by increased biofuel production. Part I of this paper will compare biofuel legislation passed by the United States and the EU Part II will provide empirical examples of the abuses of land use rights taking place around the world in the absence of social sustainability mandates. Part III will survey social sustainability principles and criteria related to land use that have been promoted by various non-governmental organizations and refute concerns that social sustainability principles will run afoul of international trade law. Finally, the conclusion will recommend that biofuel legislation in both the United States and the EU be amended to include specific social sustainability principles that protect the land and land use rights of local and indigenous communities.

I. COMPARISON OF BIOFUEL LAWS IN THE UNITED STATES AND THE EUROPEAN UNION

A. UNITED STATES BIOFUEL LEGISLATION

Legislation in both the United States and the EU mandating increased use of biofuels is stimulating the expansion of biofuel production around the world. The legislation passed by both entities reflects an increased commitment to ensuring biofuels used to meet production requirements fulfill minimal environmental sustainability requirements. However, there is no requirement in either the US or EU legislation that biofuel production be socially sustainable.

The dominant biofuel produced in the United States is corn ethanol.²⁰ Ninety-five percent of biofuel used in the United States at the end of 2007 was ethanol.²¹ Through an array of payments, subsidies, and guaranteed loan programs for corn producers, US farm policy created the ethanol industry around 1970.²² After the Arab oil embargo and other energy crises of the 1970s, Congress no longer viewed ethanol as merely one of many products that could be produced from corn. Congress began passing new legislation promoting corn ethanol as a means to energy independence and cleaner air.²³ Tax incentives and subsidies for ethanol

²⁰ Melissa Powers, *King Corn: Will the Renewable Fuel Standard Eventually End Corn Ethanol's Reign?*, 11 Vt. J. Envtl. L. 667, 677 (2010).

²¹ *Id.* at 682.

²² *Id.* at 677–79.

²³ *Id.* at 679.

increased throughout the 1970s and 1980s.²⁴ Although these subsidies could not make ethanol competitive with gasoline, Congress continued to create additional subsidies and tax incentives through 2005.²⁵

Billions of dollars per year in the United States are allocated to corn and corn ethanol subsidies.²⁶ From 1995 to 2005, over 56 billion dollars were allocated to subsidize corn.²⁷ In 2006, it is estimated that between 5.1 and 7 billion dollars were funneled into ethanol subsidies.²⁸ These numbers are only expected to rise as a result of the recent biofuel production mandates in the United States.²⁹ However, none of the federal laws providing fiscal support to ethanol producers require producers to meet any social or environmental sustainability requirements.³⁰

In 2005, Congress passed the first law in the United States that directly mandated the increased use of biofuels.³¹ The biofuel mandate in the 2005 EPAct energy legislation required 4 billion gallons of biofuels be blended into gasoline by 2005 and 7.5 billion gallons be blended into gasoline by 2012.³² These blending mandates are more commonly known as Renewable Fuel Standards (RFS).³³ No social or environmental sustainability requirements for biofuel production were required under the original RFS.³⁴

In 2007, Congress passed a second RFS (RFS2).³⁵ RFS2 substantially expanded the quantity of biofuel blending mandates and significantly extended the timeline of the Renewable Fuel Standard Program.³⁶ RFS2 required 9 billion gallons of biofuel per year to be

²⁴ *Id.* at 679–80.

²⁵ *Id.* at 680.

²⁶ *Id.* at 681.

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.*

³⁰ Brent Yacobucci, Congressional Research Service, Biofuels Issues in the 111th Congress, http://www.eere.energy.gov/biomass/pdfs/Biomass_2009_Policy_II_Yacobucci.pdf (last visited Oct. 10, 2011) (unpublished presentation) (stating that EISA 2007 was the first federal biofuel legislation to implement sustainability requirements).

³¹ *See Powers, supra* note 20, at 681.

³² *Id.* at 681 & n.117.

³³ *Id.*

³⁴ Yacobucci, *supra* note 30.

³⁵ Powers, *supra* note 20, at 681–82.

³⁶ Paul Argyropoulos, U.S. Environmental Protection Agency, EISA 2007: Renewable Fuels Standards Program, 5 (Dec. 2008), http://www.energy.ca.gov/2009_energypolicy/documents/2009-01-13_workshop/presentations/Paul_Argyropoulos_EISA.PDF (unpublished presentation)

blended with gasoline by 2008 and 36 billion gallons per year to be blended with gasoline by 2022.³⁷ RFS2 was the first federal biofuel law in the United States to address the environmental sustainability of biofuel production.³⁸

Although the RFS2 legislation begins to address environmental sustainability, its provisions are minimal at best. The only environmental conditionality in the law is a requirement that biofuels being used to reach the blending targets reduce greenhouse gas emissions below the level of traditional fuels.³⁹ There are no further environmental or social sustainability requirements in RFS2.⁴⁰ After 2022, the EPA administrator, in setting the next generation of blending volumes, is required to consider further environmental, technological, and economic factors.⁴¹ The expanded list of factors associated with biofuel production that are not to be considered until after 2022 includes air quality, conversion of wetlands, wildlife habitat, water quality, water quantity, job creation, rural economic development, and food prices.⁴² Current legislation in the United States not only fails to consider social concerns related to land use associated with the current levels of biofuel production, but also seems to preclude making protection of land rights a condition of biofuel production until 2022.

B. EU BIOFUEL LEGISLATION

The biofuel mandate in the EU analogous to the renewable fuel standards in the United States is the Directive on the Promotion of the Use of Energy from Renewable Sources (the 2009 Directive).⁴³ However, numerous European nations implemented biofuel legislation at the national level prior to the EU Directive.⁴⁴

(discussing increased volume of 9 billion gallons per year by 2008 and 36 billion gallons per year by 2022).

³⁷ *Id.*

³⁸ Yacobucci, *supra* note 30.

³⁹ *Id.*

⁴⁰ 42 U.S.C. § 7545(o)(2)(A)(i) (Supp. 2009) (stating only requirement for applicable volumes of fuels is that they meet greenhouse gas reduction requirements).

⁴¹ 42 U.S.C. § 7545(o)(2)(B)(ii).

⁴² 42 U.S.C. § 7545 (o)(2)(B)(ii)(I), (IV).

⁴³ Directive 2009/28, of the European Parliament and of the Council of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources, 2009 O.J. (L 140) 16.

⁴⁴ E. Van Thuijl & E.P. Deuwaarder, *European Biofuel Policies in Retrospect*, ENERGY RESEARCH CTR. OF THE NETH., 5 (May 2006), www.ecn.nl/docs/library/report/2006/c06016.pdf.

Prior to the passage of the 2009 Directive, fiscal support for biofuel was similar to the subsidies and tax incentives given to ethanol producers and corn farmers in the United States. Fiscal incentives were common in several EU nations, including France, Spain, Germany, and Sweden.⁴⁵ Germany's laws gave full tax-exempt status to all biofuels produced domestically.⁴⁶ France's laws gave partial tax exemption for limited quantities of biofuel.⁴⁷ In addition to various degrees of tax exemption, both France and Germany also imposed an "ecotax" on traditional fossil fuels to encourage producers to blend biofuel into traditional fuels.⁴⁸

Following piecemeal legislation in France, Spain, Germany, and Sweden, the first EU level biofuel mandate was the 2003 Directive on the Promotion of the Use of Biofuels or Other Renewable Fuels for Transport (the 2003 Directive).⁴⁹ The 2003 Directive went beyond indirect fiscal support for biofuels and required member states to ensure that a certain portion of the fuels produced in their countries would be renewable fuels.⁵⁰ The European Commission, the executive body of the European Union, (the Commission) suggested that member states aim to make biofuels "2% of all petrol and diesel for transport purposes placed on their markets by 2005"⁵¹ and "5.75% of all petrol and diesel for transport purposes placed on their markets by 2010."⁵² While the 2003 Directive suggested that member states consider the climate, environmental, and economic factors associated with various biofuels, the directive did not mandate any specific social or environmental requirements for biofuel production.⁵³

The 2003 Directive faced backlash for its failure to adequately consider the environmental and social costs of biofuel production before mandating increases in production throughout the EU.⁵⁴ In response, the

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ *Id.* at 13.

⁴⁸ *Id.* at 13, 16.

⁴⁹ Directive 2003/30 of the European Parliament and of the Council of 8 May 2003 on the Promotion of the Use of Biofuels or Other Renewable Fuels for Transport, 2003 O.J. (L 123) 42.

⁵⁰ *Id.* art. 3(1)(a), at 44.

⁵¹ *Id.* art. 3(1)(b)(i), at 44.

⁵² *Id.* art. 3(1)(b)(ii), at 45.

⁵³ *Id.* art. 3(4), at 45 (requiring only that countries consider the economic and environmental balance of biofuel production).

⁵⁴ Roger Harrabin, *EU Rethinks Biofuels Guidelines*, BBC NEWS (Jan. 14, 2008, 12:49 AM), <http://news.bbc.co.uk/2/hi/europe/7186380.stm>.

EU Environment Commissioner acknowledged that the Commission failed to adequately anticipate and address the social and environmental problems associated with biofuel production and promised that adequate criteria would be introduced in forthcoming legislation.⁵⁵

In 2009 the EU repealed the 2003 Directive and passed the 2009 Directive on the Promotion of the Use of Energy from Renewable Sources.⁵⁶ Draft proposals specified protection of indigenous and local land rights as a condition to biofuel production.⁵⁷ However, final legislation required only environmental conditions be met in order for biofuels to count toward a country's production mandate.⁵⁸ In order for a biofuel to count toward national requirements, it must reduce emissions, protect lands with high biodiversity value, protect lands with high carbon value, and protect peatlands.⁵⁹

Social considerations in the 2009 Directive are negligible at best. A special commission is required to report on social impacts of biofuel production in both European producer countries and producer countries located outside of Europe every two years.⁶⁰ The report must include whether food availability and prices or land use rights are being impacted by increased biofuel production and whether producer countries have ratified various international treaties that protect the rights of indigenous communities.⁶¹ Although the 2009 EU directive directly contemplates that land use rights will be impacted by increased production, it does nothing to affirmatively protect or halt the destruction of those rights currently taking place in the local and indigenous communities of producer nations.

⁵⁵ *Id.*

⁵⁶ Directive 2009/28, of the European Parliament and of the Council of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources and Amending and Subsequently Repealing Directives 2001/77/EC and 2003/30/EC, 2009 O.J. (L 140) 16.

⁵⁷ STEVE CHARNOVITZ ET AL., INT'L FOOD & AGRIC. TRADE POLICY COUNCIL, AN EXAMINATION OF SOCIAL STANDARDS IN BIOFUELS SUSTAINABILITY CRITERIA 26 box4 (2008), http://www.agritrade.org/documents/SocialStnds_Biofuels_FINAL.pdf.

⁵⁸ Directive 2009/28, of the European Parliament and of the Council of 23 April 2009 on the Promotion of the Use of Energy from Renewable Sources, art. 17, 2009 O.J. (L 140) 36–38.

⁵⁹ *Id.* art. 17(1)–(5), at 36–37.

⁶⁰ *Id.* art. 17(7), at 38.

⁶¹ *Id.*

II. HUMAN IMPLICATIONS OF THE LACK OF LAND USE CRITERIA IN BIOFUEL LEGISLATION

A. PRODUCTION ON MARGINAL LANDS: THE FIRST THREAT TO LOCAL AND INDIGENOUS LAND RIGHTS

The first major social concern of increasing biofuel production was centered on the “food versus fuel” debate.⁶² Biofuel critics argue that biofuel production increased the demand for commodity crops like corn, which are used to make first generation biofuels, and also that biofuel feedstocks compete with food crops for agricultural land. Biofuels were associated with soaring food prices from 2007 to 2008.⁶³ Biofuel advocates addressed the food versus fuel criticism by arguing that biofuels could be produced on marginal or idle lands.⁶⁴

By seeking to protect land currently devoted to food crop production and shift biofuel production to other areas, the assault on other traditional uses of land was likely magnified. In a draft report on the Renewable Energy Directive, a European Parliament Committee broadly defined marginal land.⁶⁵ Land was considered marginal land unless it was currently used to produce food or it had a high carbon stock, like bog land or peat land.⁶⁶ The opportunistic definition of marginal land may be reinforced and reproduced by similar legislative definitions at the national level as well. In addition to embracing general policies of designating and setting aside ‘marginal lands’ with little or no clear attempt to define these terms,⁶⁷ a national government may appeal to other legal doctrines to effect takings of rural peoples’ lands.⁶⁸ Indonesia is a concrete example. In Indonesia, constitutional and state laws designate areas as unowned regardless of traditional land use or ownership.⁶⁹

⁶² See COTULA ET AL., *supra* note 1, at 2, 13.

⁶³ Franco et al., *supra* note 11, at 672.

⁶⁴ *Id.*

⁶⁵ *Id.* at 673–74.

⁶⁶ *Id.* at 674.

⁶⁷ See Sonja Vermeulen & Lorenzo Cotula, *Over the Heads of Local People: Consultation, Consent, and Recompense in Large-Scale Land Deals for Biofuels Projects in Africa*, 37 J. PEASANT STUD. 899, 905 (2010).

⁶⁸ See John F. McCarthy, *Processes of Inclusion and Adverse Incorporation: Oil Palm and Agrarian Change in Sumatra, Indonesia*, 37 J. Peasant Stud. 821, 829 (2010).

⁶⁹ *Id.*

Furthermore, even if actual marginal land does exist in producing countries, biofuel production companies have historically cultivated crops on rich agricultural land located closely to roads and other necessary infrastructure, not on marginal land.⁷⁰ In Africa, large-scale biofuel developers often choose land close to irrigation and surrounding markets.⁷¹ For example, all land transactions for biofuel production on record in Mali are located in regions of the country with high agricultural potential.⁷² Similarly, in Ethiopia, research suggests that although all current projects are recorded with the state as existing on wastelands, most of the land was already subject to traditional rotating cultivation and grazing activity prior to use for biofuel production.⁷³

B. CONFLICTING LAND RIGHTS UNDER NATIONAL LAWS OF PRODUCER COUNTRIES

A second major concern of increased biofuel production is lack of protection for traditional land use rights under the conflicting property and land use laws in producer countries. Absent an adequate legal structure to deal with the competing claims of local, governmental and commercial biofuel interests, poor populations may be excluded from their own lands, for lack of legally established or formal land use rights.⁷⁴ This destruction of traditional land tenure rights negatively impacts local food security as well as “the economic, social and cultural dimensions of land use” within communities.⁷⁵ Negative impacts on the land use rights of local populations are not purely academic. There is a growing body of geographically diverse empirical evidence documenting the erosion of customary land tenure rights in producer nations.⁷⁶

Protecting land use rights can be difficult without a common understanding of what the terms “land tenure rights” and “land use rights” encapsulate. The Food and Agriculture Organization defines land tenure as “the arrangements (rules, institutions, and processes) through which people gain legitimate access to land... Land rights may be held by individuals or groups. . . or by the state... They may be based on

⁷⁰ Franco et al., *supra* note 11, at 676.

⁷¹ Vermeulen & Cotula, *supra* note 67, at 903.

⁷² *Id.*

⁷³ *Id.*

⁷⁴ COTULA ET AL., *supra* note 1, at 2.

⁷⁵ *Id.*

⁷⁶ *Id.*

national legislation, on customary law or on combinations of both.”⁷⁷ In the past, increases in cash crops have raised land values and led to the rise of individual ownership and the subordination of traditional communal land ownership.⁷⁸ In order to ensure that biofuel production does not cut off local people’s access to land, the social sustainability principles integrated into existing biofuel mandates in the United States and the EU must require that the national laws of producer countries adequately protect the land tenure rights of local people.

1. IMPACTS ON LAND TENURE: INDONESIA

In Southeast Asia, oil palm is the main biofuel crop.⁷⁹ “The area under oil palm in Southeast Asia grew from 4.2 million hectares in 2000 to 7.1 million ha in 2009, with millions of additional hectares either in transition or set aside for further development.”⁸⁰ US and EU policies have driven much of the governmental push toward biofuel development in Indonesia.⁸¹ In 2007 alone, energy companies invested 12.4 billion US dollars in Indonesian biofuel.⁸² In response to this foreign interest, the government set aside 6.5 million hectares of idle land for biofuel development.⁸³

Traditionally, due to the vast amount of land available in Indonesia, ownership rights were informally distributed and fairly uniform.⁸⁴ Each villager had access to several acres.⁸⁵ Villagers’ subsistence consisted of two main land use activities. They harvested ‘jungle rubber’ gardens, consisting of several hectares of forestland, and planted rice on communal village property.⁸⁶ Because of the vast amount of land, it was common for villagers to sell their gardens to pay for life events, like their children’s weddings, and soon thereafter find a new patch of forest on which to recommence their “rubber garden[ing].”⁸⁷

⁷⁷ *Id.* at 8.

⁷⁸ *Id.* at 28.

⁷⁹ McCarthy, *supra* note 68, at 822.

⁸⁰ *Id.* (footnote omitted).

⁸¹ *Id.*

⁸² *Id.* at 823.

⁸³ *Id.*

⁸⁴ *Id.* at 838.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.* (internal quotations omitted).

Prior to 1997, the first phase of biofuel development in Indonesia consisted of a “state-led development period.”⁸⁸ During this period, the state had a fair amount of success integrating poor village smallholders into agribusiness by ensuring technical and operational support.⁸⁹ However, the advent of various neo-liberal biofuel development policies reduced state intervention into company-run oil palm plantations.⁹⁰ Starting in 1997, large areas were bought up and enclosed by outsiders.⁹¹ Because of the informal nature of their customary rights over both private and communal land, village commoners were not able to bargain effectively with the rich plantation owners, and many have become marginalized and landless.⁹² One schoolteacher described the process as creating a class of ‘coolies.’⁹³ Once landowners are stripped of their land, she explained, “they are forced into insecure livelihoods, such as illegal logging, mining gravel in local rivers, or poorly paid piecework on other people’s oil palm land.”⁹⁴

2. IMPACTS ON LAND TENURE: AFRICA

In numerous African countries, the majority of land is formally or legally owned by the state.⁹⁵ In Ethiopia, Mozambique, and Tanzania, the state owns all of the land and purchases are illegal.⁹⁶ In Ghana, the state owns part of the land,⁹⁷ but local persons claim customary tenure rights to between eighty and ninety percent of all undeveloped land in the country.⁹⁸ High levels of customary land ownership are not unique to Ghana. Throughout Africa, the World Bank estimates that only between two and ten percent of land is secured by formal legal title, and the majority of land ownership that is legally documented is located in developed areas.⁹⁹

⁸⁸ *Id.* at 826.

⁸⁹ *Id.*

⁹⁰ *Id.* at 826, 839.

⁹¹ *Id.* at 838.

⁹² *Id.*

⁹³ *Id.* at 843. A coolie is an unskilled native laborer.

⁹⁴ *Id.* at 843.

⁹⁵ Vermeulen & Cotula, *supra* note 67, at 904.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.* at 905.

Legal protection of customary rights in African countries is extremely limited.¹⁰⁰ Although countries recognize customary usufructory rights, state-issued legal title always trumps customary rights under the law.¹⁰¹ In African countries where the state is taking steps toward formalizing the usufructory rights of rural peoples, obtaining legal title to land is contingent on proof of “productive use.”¹⁰² Lacking a clear definition of “productive use,” this system of formalization functions to exclude large groups of pastoral peoples who do not use land for continuous periods of time.¹⁰³

The formal ownership of state owned lands shapes the way land transfers take place in many African countries. The norm is extremely long-term leases entered into between the government and foreign investors.¹⁰⁴ These leases often range from fifty to ninety nine years.¹⁰⁵ Individual natives are excluded from the deal-making process by the widespread institution of “investment promotion agencies,” established by various African governments.¹⁰⁶ These agencies essentially act as “one-stop-shops”¹⁰⁷ facilitating the acquisition of all necessary licenses, permits, and authorizations necessary to lease land in the country.¹⁰⁸ In some countries, there are minor requirements for consultations with locals prior to formal approval.¹⁰⁹ However, in most instances, local use is merely passively observed. Where participation by local leaders is allowed, there is no power to reject development proposals.¹¹⁰

The Procana ethanol project in the southern district of Gaza in Mozambique is a concrete example of the vulnerability of local land use rights under the current legal system.¹¹¹ In 2007, the government leased 30,000 hectares to the London-based Central African Mining and Exploration Company to start a sugarcane ethanol plantation.¹¹² Two groups of rural people were dislocated as a result of the plantation

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Id.*

¹⁰⁴ *See id.* at 906.

¹⁰⁵ *See id.*

¹⁰⁶ *See id.*

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ *Id.* at 907.

¹¹⁰ *Id.*

¹¹¹ *See*, COTULA ET AL., *supra* note 1, at 35–36.

¹¹² *Id.* at 35; Franco et al., *supra* note 11, at 686.

development.¹¹³ The first group forced off the land was pastoralists who were forced to relocate farther from the water resources they needed to support themselves and their cattle.¹¹⁴ The second group expelled was subsistence farmers.¹¹⁵ The second group had previously been forced off of their traditional land so that the government could create a national park.¹¹⁶ Amid this repeat attack on their right to land, some of the group resisted.¹¹⁷ Although the energy company uprooted both of the local groups and cut off their access to the land, the company ultimately pulled out of the project in 2009.¹¹⁸

3. IMPACTS ON LAND TENURE: THE UNITED STATES

The negative changes in land tenure caused by the increase in large-scale biofuel production are not limited to developing countries. The same stampede of land use rights can be seen in the United States among the rural communities of Iowa. Iowa ethanol production grew from 859 million gallons per year in 2004 to well over three billion gallons per year in 2009.¹¹⁹ Research in Iowa shows that from 2007 to 2008 crop prices spiked by nineteen percent, which in turn caused profit margins to shrink for those farmers who rented land.¹²⁰ Farmers testified that the land rental market became plagued with negative competitive behavior and that absentee landowners increased the rents to levels that only large farms could afford.¹²¹ Those farmers who managed to stay in business failed to reap any of the economic benefits from the rise in the price of corn because they were forced to spend the increased profits on more fertilizer and machinery to support the increased scale of their production.¹²² This race to buy newer and better machinery to keep up with the increases in the price of production is an event commonly referred to as the “technological . . . treadmill.”¹²³

¹¹³ Franco et al., *supra* note 11, at 686.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.* at 687.

¹¹⁸ *Id.*

¹¹⁹ Sean Gillon, *Field of Dreams: Negotiating an Ethanol Agenda in the Midwest United States*, 37 J. PEASANT STUD. 723, 729 (2010).

¹²⁰ *Id.* at 733.

¹²¹ *Id.*

¹²² *Id.*

¹²³ *Id.*

In addition to the trend toward large centralized farm ownership, citizens in small communities testified to a general disregard for local laws and community identities formed in relation to local land use.¹²⁴ Ethanol plants moved into small rural communities despite petitions signed by hundreds of residents.¹²⁵ Concerns in one town that the community identity would change from “livestock country” to “ethanol country” fell on deaf ears.¹²⁶ Investors constructed in areas zoned for commercial rather than industrial development,¹²⁷ and concerns surrounding water, air, and general safety were largely ignored.¹²⁸

III. PROPOSED SOCIAL SUSTAINABILITY PRINCIPLES

Over thirty countries have introduced some form of ethanol biofuel legislation.¹²⁹ In order for many biofuel crops to be competitive, they must be grown on large plantations.¹³⁰ Appropriate laws and regulations are necessary to ensure that the negative social externalities associated with large biofuel plantations are kept in check.¹³¹ Social sustainability mandates should be adopted at both the national and the international level.¹³² In addition to creating new sustainability mandates, many land ownership and land acquisition laws in different nations have important implications for the sustainable production of biofuels and will need to be reformed.¹³³

First, this section will address Indonesia as an example of a country that needs to resolve existing conflicts in national land use laws before the adoption of new biofuel sustainability regulations can be successful. Next, this section will address the social sustainability principles introduced by the Roundtable on Sustainable Palm Oil, Forest Stewardship Council, Roundtable on Responsible Soy, the Better

¹²⁴ See *id.* at 738.

¹²⁵ *Id.* at 732.

¹²⁶ See *id.* at 738.

¹²⁷ *Id.*

¹²⁸ See *id.*

¹²⁹ Charlotta Jull et al., *Recent Trends in the Law and Policy of Bioenergy Production, Promotion and Use*, FOOD & AGRIC. ORG. OF THE UN, 4 (Sept. 2007), <http://www.fao.org/legal/prs-ol/lpo68.pdf>.

¹³⁰ ELIZABETH CUSHION ET AL., BIOENERGY DEVELOPMENT ISSUES AND IMPACTS FOR POVERTY AND NATURAL RESOURCE MANAGEMENT 101 (2010).

¹³¹ Jull et al., *supra* note 129, at 1.

¹³² See *id.*

¹³³ See *id.* at 18.

Sugarcane Initiative, and the Roundtable on Sustainable Biofuels. Finally, this section will refute the argument that national and international sustainability regulations would violate international trade agreements and could not be enforced.

A. CONFLICTS IN INDONESIA'S EXISTING LAND LAWS

Compliance with applicable local and national legislation is a common principle among all five existing biofuel certification schemes.¹³⁴ However, unless national legislation adequately protects local and indigenous land rights, compliance with national legislation in producer countries is futile and possibly even detrimental to achieving social sustainability. Indonesia is an example of a country whose current legislation is insufficient to protect indigenous land rights in the face of increased biofuel production. Indonesia has two conflicting bodies of law regulating land use.¹³⁵ The first is customary law and the second is state law.¹³⁶ In Indonesia, existing state land use law aims to both promote the commercial ends of biofuel development, and to protect the rights of indigenous communities to use and possess lands for communal purposes under customary law.¹³⁷ However, the goals of promoting commercial biofuel development and promoting land use rights of indigenous communities are often in conflict.¹³⁸

¹³⁴ *Bonsucro Production Standard*, BONSUCRO, 5 (Mar. 2011), http://www.bonsucro.com/assets/Bonsucro_Production_Standard_March_2011_3.pdf; *Principles and Criteria for Forest Stewardship*, FOREST STEWARDSHIP COUNCIL, http://www.fscus.org/images/documents/FSC_Principles_Criteria.pdf (last updated 2002); *RTRS Standard for Responsible Soy Production Version 1.0*, ROUND TABLE ON RESPONSIBLE SOY ASS'N, 1 (June 10, 2010), http://www.responsiblesoy.org/index.php?option=com_docman&task=doc_download&gid=290&Itemid=19&lang=en; *RSPO Principles and Criteria for Sustainable Palm Oil Production*, Roundtable on Sustainable Palm Oil, 6 (Oct. 2007), <http://www.rspo.org/sites/default/files/RSPO%20Principles%20&%20Criteria.pdf>; *RSB Principles & Criteria for Sustainable Biofuel Production*, ROUNDTABLE ON SUSTAINABLE BIOFUELS, 7 (May 11, 2010), <http://rsb.epfl.ch/files/content/sites/rsb2/files/Biofuels/Version%202/PCs%20V2/10-11-12%20RSB%20PCs%20Version%202.pdf>.

¹³⁵ MARCUS COLCHESTER ET AL., *PROMISED LAND PALM OIL AND LAND ACQUISITION IN INDONESIA: IMPLICATIONS FOR LOCAL COMMUNITIES AND INDIGENOUS PEOPLES* 167 (2006).

¹³⁶ *Id.*

¹³⁷ *Id.* at 166.

¹³⁸ *Id.*

1. NATIONAL CONFLICTS: LAND OWNERSHIP

The first area of land use law implicated in the debate is the right to own land. Under the Indonesian constitution, every person has the right to own land.¹³⁹ The constitution specifically reserves to individuals and to indigenous communities the right to own land.¹⁴⁰ However, the constitution also reserves to the state the right to control “natural resource[s]” and “[p]roductive activities related to natural resources” for the betterment of Indonesian society as a whole.¹⁴¹

The tension between individual and indigenous ownership of land under customary law and state ownership of the land under modern state law has clearly been resolved in favor of the state.¹⁴² State agrarian, forest, and mining laws make it extremely difficult, if not impossible, for indigenous communities to exercise ownership over land. It is illegal for indigenous groups to exercise their right to forestland if doing so hampers the development of a plantation or forest concession.¹⁴³

Recent laws passed in Indonesia attempted to ameliorate the harsh implication of the first forest and agrarian laws by allowing indigenous groups to exercise preemptory power over community land and halt development if they could prove the existence of their indigenous communities.¹⁴⁴ However, the requirements for proving the existence of indigenous communities were seen by many as severely limiting the areas in which indigenous persons would be able to protect their communal lands, and there is little evidence that these later laws are being enforced.¹⁴⁵

2. NATIONAL CONFLICTS: LAND ACQUISITION

The next area of Indonesian land use law that must be clarified in order for biofuel production to be socially sustainable is the law of land acquisition. The first notable weakness in Indonesian law is the extremely broad definition of public purpose under the nation’s eminent

¹³⁹ *Id.* at 48.

¹⁴⁰ *Id.*

¹⁴¹ *Id.* at 48–49.

¹⁴² *Id.* at 50.

¹⁴³ *Id.*

¹⁴⁴ *Id.* at 51.

¹⁴⁵ *Id.*

domain law.¹⁴⁶ This broad definition of public purpose does not appear to preclude taking land in order to transfer it to a private individual for that private individual's or company's sole pecuniary benefit.¹⁴⁷

The second area of land acquisition law that must be clarified is the transfer of state owned land. The definition of state owned land under Indonesian law does not exclude indigenous community owned land.¹⁴⁸ Under customary law, indigenous persons cannot transfer ownership of land, but rather transfer use rights.¹⁴⁹ Thus, traditional land rights are not subject to any formal title system.¹⁵⁰ However, under state law, all land that is not formally encumbered by title is subject to the complete control of the state.¹⁵¹ Thus, under the country's land transfer law, not only does the state have the power to take land against the wishes of individuals for the sole benefit of biofuel companies, but the government will likely not even have to exercise its powers of eminent domain or pay any form of just compensation before taking an indigenous community's lands.

3. NATIONAL CONFLICTS: PENALTIES FOR VIOLATING LAND USE LAW

A final conflict in national land use law that needs to be remedied to ensure socially sustainable biofuel production is the law of land use penalties. Under Indonesian law, biofuel companies are only subject to penalties if they act in violation of a written law.¹⁵² The aim of the state law is to punish persons who violate the laws and thereby attain compliance with the laws.¹⁵³ By contrast, the goal of Indigenous laws is to protect the balance of nature and the social structure of the community.¹⁵⁴ Thus, various aspects of spatial planning, planting, and production on large biofuel plantations violate Indigenous laws and should be prohibited although they do not violate the letter of national laws.¹⁵⁵

The first basic social tenet of nongovernmental social sustainability principles will be introduced in the subsequent section.

¹⁴⁶ *Id.* at 52.

¹⁴⁷ *Id.*

¹⁴⁸ *Id.* at 63.

¹⁴⁹ *Id.* at 168.

¹⁵⁰ *Id.* at 63.

¹⁵¹ *Id.*

¹⁵² *Id.* at 169.

¹⁵³ *Id.*

¹⁵⁴ *Id.*

¹⁵⁵ *See id.* at 170.

This tenet requires compliance with national laws in producer countries. However, as can be seen from the status of Indonesian land law at present, compliance with state laws may perpetuate the destruction of individual and community land use rights because underlying land use laws of a producer country are themselves in conflict. In these nations, compliance with the overarching social sustainability principles does little to achieve the goal of protecting the rights of individuals and communities in producer countries. Thus, the first basic step to creating a sustainable legal framework for biofuel development should be to evaluate the areas of law within the existing national legal frameworks that have implications for biofuel production and require that those areas of law that undermine the process of sustainable production be reformed.¹⁵⁶

B. MODEL BIOFUEL SUSTAINABILITY CERTIFICATION SYSTEMS

Once conflicts existing within producer countries land use laws are resolved, implementing biofuel social sustainability principles into US and EU legislation will more fully protect indigenous land use rights in producer countries. Voluntary certification systems engineered to inform buyers about the economic, social, and environmental sustainability of biofuels have proliferated in recent years.¹⁵⁷ The social sustainability principles introduced by each of the certification bodies are the same or similar in many respects,¹⁵⁸ this overlap suggests that a universal certification system may be possible.¹⁵⁹ All of the certification systems aim to evaluate the quality of the social and environmental management of biofuel production against the specific organization's formulated criteria.¹⁶⁰

The Roundtable on Sustainable Palm Oil (RSPO) is an effort by industry and environmental groups to transform the process of biofuel production from palm oil.¹⁶¹ The RSPO defines sustainability to include

¹⁵⁶ See Jull et al., *supra* note 129, at 15.

¹⁵⁷ Timo Kaphengst et al., *At a Tipping Point? How the Debate on Biofuel Standards Sparks Innovative Ideas for the General Future of Standardisation and Certification Schemes*, 17 J. CLEANER PRODUCTION S99, S99 (2009).

¹⁵⁸ *Id.*

¹⁵⁹ *Id.*

¹⁶⁰ Jinke van Dam et al., *Overview of Recent Developments in Sustainable Biomass Certification*, 32 BIOMASS & BIOENERGY 749, 772 (2008).

¹⁶¹ COLCHESTER ET AL., *supra* note 135, at 32.

legal, economic, environmental, and social aspects.¹⁶² The organization has developed a set of standards, “Principles & Criteria,” which must be complied with in order for a producer to be certified as sustainable.¹⁶³ The Principles & Criteria were publicly released in 2005.¹⁶⁴ The standards are not narrowly defined, but nations are encouraged to adopt their own versions as long as they are approved by the RSPO. Until national interpretations are elucidated and approved, the general standards apply.¹⁶⁵ Independent bodies approved by the RSPO assess compliance with the standards in each producer nation.¹⁶⁶

Like the RSPO, the Forestry Stewardship Council (FSC) sets forth principles addressing social, economic, and environmental concerns implicated in sustainable forestry.¹⁶⁷ The principles were adopted in 1993 and amended in 1996, 1999, and 2002.¹⁶⁸ The FSC approves independent bodies to certify and assess the forest management of producers who request certification.¹⁶⁹ Forest certification standards may be adopted or reformed to suit local cultural and ecological needs in various regions and nation states.¹⁷⁰

Similar to both the FSC and the RSPO, the Better Sugarcane Initiative (BSI) seeks to provide a framework of production principles within which social, economic, and environmentally sustainable production of sugarcane can be achieved.¹⁷¹ The BSI principles and criteria were released in 2010.¹⁷² Independent auditors determine certification within the BSI framework.¹⁷³

The Roundtable on Responsible Soy (RTRS) is a similar organization to those already discussed. RTRS determines the

¹⁶² *RSPO Certification Systems*, ROUNDTABLE ON SUSTAINABLE PALM OIL, 7 (June 26, 2007), http://www.rspo.org/files/resource_centre/RSPO%20certification%20systems.pdf.

¹⁶³ *Id.* at 4.

¹⁶⁴ *Id.*

¹⁶⁵ *Id.* at 18.

¹⁶⁶ *Id.* at 9.

¹⁶⁷ *The History of FSC-US*, http://www.fscus.org/about_us/, (last visited Dec. 30, 2010).

¹⁶⁸ Principles and Criteria for Forest Stewardship 1 (1993).

¹⁶⁹ *What is Certification*, http://www.fscus.org/faqs/what_is_certification.php, (last visited Dec. 30, 2010).

¹⁷⁰ *Forest Management Standards*, http://www.fscus.org/standards_criteria/forest_management.php, (last visited Dec. 30, 2010).

¹⁷¹ Better Sugar Cane Initiative Production Standard, 2, <http://www.bettersugarcane.org/certification.html>, (follow “better sugar cane production standard” hyperlink) (last visited Dec. 30, 2010).

¹⁷² *Id.* at 1.

¹⁷³ *Id.* at 3.

sustainability of production for soy producers. The RTRS aims to promote economic, social, and environmental sustainability in soy production.¹⁷⁴ The RTRS has produced a set of generic requirements for certification and encourages nations to produce their own social indicators to complement the generic standards.¹⁷⁵ The RTRS released its standards in 2010.¹⁷⁶

Finally, The Roundtable on Sustainable Biofuels attempts to provide best practices for all biofuel feedstocks through its principles and criteria.¹⁷⁷ The organization released its principles and criteria in 2010 and they will become effective on January 1, 2011, when the organization hopes to begin issuing its first sustainability certificates.¹⁷⁸

C. PRINCIPLES AND CRITERIA APPLICABLE TO SOCIAL SUSTAINABILITY

One of the first principles of each of the existing certification systems requires compliance with the applicable local, national, and international laws.¹⁷⁹ A second common element of all five certification systems is respect for all existing land use rights of local and indigenous communities and equitable resolution of land use conflicts.¹⁸⁰ A third common social sustainability principle is respect for the legal and customary rights of indigenous persons.¹⁸¹ A final common principle explicitly recognized by the FSC, the RSB, and the RSPO certification systems is the requirement of prior and informed consent for any negotiated agreements or land concessions.¹⁸²

¹⁷⁴ *Roundtable on Responsible Soy Association*, <http://www.responsiblesoy.org/>, (last visited Dec. 30, 2010).

¹⁷⁵ RTRS Standard for Responsible Soy Production Version 1.0, 3, <http://www.google.com/search?q=RTRS+Standard+for+Responsible+Soy+Production+Version+1.0+&ie=utf-8&oe=utf-8&aq=t&rls=org.mozilla:en-US:official&client=firefox-a>, (June 10, 2010).

¹⁷⁶ *Id.* at i.

¹⁷⁷ RSB Principles & Criteria for Sustainable Biofuels 2.0 at 5 (2010).

¹⁷⁸ *Id.*

¹⁷⁹ Better Sugar Cane Initiative Production Standard 1.1(2010); Principles and Criteria for Forest Stewardship 1.1 (1993); RTRS Standard for Responsible Soy Production Version 1.0 1.1 (2010); RSPO Principles and Criteria for Responsible Palm Oil Production 2.1 (2005).

¹⁸⁰ Better Sugar Cane Initiative Production Standard 1.2(2010); Principles and Criteria for Forest Stewardship 2 (1993); RTRS Standard for Responsible Soy Production Version 1.0 3.2 (2010); RSPO Principles and Criteria for Responsible Palm Oil Production 2.1 (2005).

¹⁸¹ Principles and Criteria for Forest Stewardship 3 (1993); RSPO Principles and Criteria for Responsible Palm Oil Production 2.3 (2005).

As addressed above, national laws in the area of land use and land ownership may need to be reformed. Thus, in addition to compliance with national laws, new social sustainability criteria should require a thorough evaluation and possibly a reformation of existing land laws in a nation state, which undermine the rights of indigenous and local communities to own and use land.

The requirement that indigenous rights and customary land use rights be respected is drawn from international law. International law recognizes the inherent rights of indigenous persons and communities to own and use land and natural resources, because both their existence on the land and their customs precede the laws of modern nation states.¹⁸³ Accordingly, the existence of these rights is independent of state law and government action.¹⁸⁴ Specifically, the standard for protection of indigenous rights to land and land use was elucidated in the International Labour Organization Convention No. 169, and is explicitly cross-referenced in the FSC, the BSI, and the RTRS documents.¹⁸⁵ Article 14 of the International Labour Organization Convention requires indigenous peoples' rights to own and possess land be respected.¹⁸⁶ The protection provided under this article explicitly protects rights to land used for subsistence or shifting cultivation, types of use that make proof of ownership under modern laws difficult.¹⁸⁷

Similarly, the requirement that free and informed consent mark agreements derives from International Labour Organization (ILO) law.¹⁸⁸ ILO Convention 169, Article 7, provides that indigenous peoples have a right to self-determination, and their decisions about social, economic, and cultural development should be respected.¹⁸⁹ International law goes a step further in its protection of indigenous communities rights to decide on the disposition of their land. It requires that agreements are granted

¹⁸² Better Sugar Cane Initiative Production Standard 1.2(2010); Principles and Criteria for Forest Stewardship 2.2 (1993); RSPO Principles and Criteria for Responsible Palm Oil Production 7.5,7.6 (2005).

¹⁸³ AMAN (ALIANSI MASYARAKAT ADAT NUSANTARA) & WALHI (WAHANA LINGKUNGAN HIDUP INDONESIA), THE APPLICATION OF FSC PRINCIPLES 2 AND 3 IN INDONESIA: OBSTACLES AND POSSIBILITIES 54 (2003).

¹⁸⁴ *Id.* at 55.

¹⁸⁵ Principles and Criteria for Forest Stewardship 1.3 (1993); Better Sugar Cane Initiative Production Standard 1.2 (note) (2010); RTRS Standard for Responsible Soy Production Version 1.0, at 3.2 (guidance) (2010).

¹⁸⁶ AMAN & WALHI, *supra* note 183.

¹⁸⁷ *Id.*

¹⁸⁸ *Id.* at 58.

¹⁸⁹ *Id.*

within the context of the indigenous group's own customary law and within their own decision making bodies.¹⁹⁰

D. ENFORCEABILITY IN THE INTERNATIONAL TRADE CONTEXT

There are three main options for implementing biofuel social sustainability mandates. The first option would be to ban importation or use of biofuels that do not meet social sustainability criteria.¹⁹¹ The second, weaker, option would be to deny government incentives to biofuels that do not meet social sustainability criteria.¹⁹² The third, weakest, option would be to mandate that biofuel producers report on their compliance with social sustainability criteria.¹⁹³

Currently, no nations completely ban biofuels that do not meet social sustainability criteria.¹⁹⁴ Draft proposals of the EU's Directive on the Promotion of the Use of Energy from Renewable Sources specified adherence to all of the treaties of the ILO as a precondition to having biofuels count toward member states' blending requirements.¹⁹⁵ However, ultimately the 2009 Directive only included environmental sustainability requirements as preconditions for inclusion in a member country's blending targets.¹⁹⁶ Although the 2009 Directive does not require social sustainability, it is an example of a biofuel mandate that implements a reporting requirement.¹⁹⁷ Specifically, the 2009 Directive requires the European Commission report on whether increased biofuel production is affecting land use rights in either member states or countries outside of Europe, which are the sources of feedstock, and whether feedstock nations have ratified various international social treaties.¹⁹⁸

Concerns that social sustainability requirements in biofuel legislation will run afoul of international trade law are largely unfounded. The General Agreement on Tariffs and Trade (GATT) is the primary agreement on the trade of goods in the World Trade

¹⁹⁰ *Id.* at 61.

¹⁹¹ CHARNOVITZ, *supra* note 57, at 25.

¹⁹² *Id.* at 26.

¹⁹³ *Id.* at 27.

¹⁹⁴ *Id.* at 25.

¹⁹⁵ *Id.* at 26.

¹⁹⁶ Council Directive 2009/28, 2009 O.J. (L140) (EC) art. 17, §1-6.

¹⁹⁷ Council Directive 2009/28, 2009 O.J. (L140) (EC) art. 17, §7.

¹⁹⁸ Jody M. Endres, *Clearing the Air: The Meta-Standard Approach to Ensuring Biofuels Environmental and Social Sustainability*, 28 VA. ENVTL. L.J. 73, 99 (2010).

Organization.¹⁹⁹ The correlative document to the GATT is the Agreement on Technical Barriers to Trade (TBT).²⁰⁰ Whether land use criteria are compatible with international trade law is contingent upon how the criteria affect market access for biofuels.²⁰¹ Under the TBT regulations are valid unless they constitute an unnecessary barrier to trade.²⁰²

The most basic principle of the GATT is non-discrimination.²⁰³ Non-discrimination requires that government actions regulating market behavior do not treat imported products less favorably than domestically produced goods.²⁰⁴ Non-discrimination also requires that member states treat products from all other member states equally, but it does not equate equal treatment of all products with equal treatment of all countries.²⁰⁵ Thus, a law that implies social criteria must be met before biofuels will be imported, but does not apply the same social criteria within its own domestic biofuel production laws, would be facially invalid under the GATT.²⁰⁶ A law impacting trade that affects countries differently because of different conditions within the nations, is not per se invalid, but the implementing nation may be required to allow the regulated countries to use different but equivalent standards to meet the requirements.²⁰⁷

Even if a law is found to be invalid on the basis of arbitrary discrimination, it may be justified under Article 20 of the GATT, which contains exceptions to the general principle of non-discrimination.²⁰⁸ Article 20 contains exceptions for legislation or government actions based upon the need to protect “human, animal or plant life or health” or based upon the need to protect “public morals.”²⁰⁹ Thus, a discriminatory law may be saved if the law is necessary to protect the environment, public health, or public morals.

The test for whether or not a regulation is invalid under the TBT is similar to the test for exceptions under the GATT.²¹⁰ Thus, if social

¹⁹⁹ CHARNOVITZ, *supra* note 57, at 9.

²⁰⁰ *Id.* at 16.

²⁰¹ *Id.* at 8.

²⁰² *Id.* at 16.

²⁰³ *Id.* at 9.

²⁰⁴ *Id.*

²⁰⁵ *Id.*

²⁰⁶ *Id.*

²⁰⁷ *Id.* at 16.

²⁰⁸ *Id.* at 11.

²⁰⁹ *Id.* at 9.

²¹⁰ *Id.* at 16.

sustainability legislation passes the “necessity test” it is unlikely that it would not meet the demands of the TBT.²¹¹ Furthermore, under the TBT social sustainability criteria will likely be presumed to be valid so long as the criteria “are in conformity with international standards.”²¹²

The application of WTO rules to social criteria is complicated.²¹³ However, international trade standards do not appear to pose a serious obstacle to a nation’s implementation of mandatory social sustainability criteria. Although there is legal uncertainty with respect to social sustainability criteria under WTO rules, a few basic measures would seem to safeguard national adoption of social criteria. First, nations should apply the same social condition requirements for biofuel production domestically and in producer nations.²¹⁴ Second, the requirements should be correlated to international standards whenever possible.²¹⁵ Third, there should be flexibility in national regulations that allows regulated exporting nations to meet standards using their own equivalent social regulations.²¹⁶ Finally, national laws should make clear that the social sustainability requirements for biofuel production are being put into place to protect the environment, public health, and public morals.²¹⁷

CONCLUSION

Numerous nations have already enacted biofuel legislation that will create an unprecedented demand for biofuel crops well into the future. Increasingly, this demand is being met by developing countries with unstable land use and property laws and no clear commitment to protecting indigenous land use rights. In order to ensure the land use rights of indigenous peoples and communities are adequately protected the United States and the EU should amend their most recent legislation to include the social sustainability principles already elucidated in the existing biofuel certification schemes and the ILO treaty.

First, legislation should require that property and land use law in producer countries adequately protect the land rights of indigenous and

²¹¹ *Id.*

²¹² *Id.* at 17.

²¹³ *Id.* at 36.

²¹⁴ *Id.* at 9.

²¹⁵ *Id.* at 17.

²¹⁶ *Id.* at 16.

²¹⁷ *Id.* at 9.

local communities. After the existence of these rights is verified, the requirement that biofuel operations be produced in accordance with the applicable property and land use laws should be strictly enforced²¹⁸

Second, legislation should require biofuel operations to conduct an impact assessment²¹⁹ that takes into account the social impacts of biofuel production.²²⁰ The impact assessment should be conducted by a neutral third party and include testimony of locals with knowledge of traditional land use practices.²²¹ Any disagreement involving a substantial portion of a local or indigenous community should trigger the presumption that a site is not suitable for biofuel production, and²²² the most strict applicable impact assessment standard should govern.²²³

Third, any concessions or other activities that will negatively impact the land rights of locals or indigenous communities should be subject to the documented free, prior, and informed consent of the persons affected. The scope of consultation with the local population that is required shall be proportionate to the degree of impact on local rights.²²⁴ The concept of free, prior, and informed consent is elucidated in international law,²²⁵ and in each of the existing certification schemes.²²⁶

Finally, any areas under consideration for feedstock development should be mapped.²²⁷ Maps should clearly document current use rights,

²¹⁸ Better Sugar Cane Initiative Production Standard 1.1(2010); Principles and Criteria for Forest Stewardship, 1.1, (1993); RTRS Standard for Responsible Soy Production Version 1.0, 1.1, (2010); RSPO Principles and Criteria for Responsible Palm Oil Production, 2.1, (2005); Roundtable on Sustainable Biofuels Principles & Criteria for Sustainable Biofuels, 1, (2010).

²¹⁹ Environmental impact assessments are required by states and by the federal government in the U.S. When it is possible that an activity or development may substantially effect the environment, individuals are required to do an assessment. Typically, impact assessments require individuals to research the impacts on the environment taking into account a set of predetermined factors. Impact assessments may also require individuals to look at alternative to the proposed activity. JOHN GLASSON et al., INTRODUCTION TO ENVIRONMENTAL IMPACT ASSESSMENT 1-4 (2d ed. 2005).

²²⁰ Roundtable on Sustainable Biofuels Principles & Criteria for Sustainable Biofuels, 2a, (2010). <http://rsb.epfl.ch/page-24929-en.html>

²²¹ *Id.*

²²² Principles and Criteria for Forest Stewardship, 2.3, (1993).

²²³ *Id.*

²²⁴ Roundtable on Sustainable Biofuels Principles & Criteria for Sustainable Biofuels, 2b, (2010). <http://rsb.epfl.ch/page-24929-en.html>

²²⁵ AMAN & WALHI, *supra* note 183, at 58.

²²⁶ Better Sugar Cane Initiative Production Standard 1.1(2010); Principles and Criteria for Forest Stewardship, 2.2, (1993); RTRS Standard for Responsible Soy Production Version 1.0, 3.2.2, (2010); RSPO Principles and Criteria for Responsible Palm Oil Production, 2.3, (2005); Roundtable on Sustainable Biofuels Principles & Criteria for Sustainable Biofuels, 2b, (2010).

²²⁷ Principles and Criteria for Forest Stewardship, 7.1 h, (1993).

land ownership, and planned activities. Maps can be used to document negotiated concessions and to ensure that current land use and land ownership rights are understood and protected.

Land use sustainability principles should be implemented in a phased fashion. The first phase should require all feedstock producer countries to require farmers in those countries to report on their compliance with the above requirements. The second phase should make subsidies and tax incentives conditional on compliance with land use principles. The final phase should require compliance with land use principles before any biofuel or feedstock can be counted toward production mandates.

Current certification schemes provide a blueprint for social sustainability in biofuel production. However, the voluntary nature of certification schemes is insufficient to protect the land rights of communities and individuals in the nations producing the majority of biofuel feedstock. Countries demanding increased production should ensure that the supply of feedstock being produced to meet their demand is being produced sustainably by integrating the land use criteria elucidated in the certification schemes into their own biofuel legislation.