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Jatropha in Maasailand: Why, How and For Whose Benefit?

By
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Jatropha Seeds ready for harvest (Photo credit Dr Louis Kasunga, Tanzania)

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ABSTRACT

Recognizing the effects of fossil fuel to the environment, especially production of carbon dioxide gas which contributes to the greenhouse effect, biofuel has emerged as a potential alternative throughout the world. In the past few years, environmental NGO's in Tanzania, East Africa, have been promoting cultivation of *Jatropha curcas* L (Jatropha) an indigenous plant whose seeds can be pressed to obtain oil used in diesel engines. Such NGOs in collaboration with foreign companies buy Jatropha seeds from local farmers and support awareness creation campaigns. This paper discusses social-legal issues related to the cultivation of Jatropha in Tanzania and among the Maasai pastoralists and agro-pastoralists in particular. Premised on the principle of equal but differentiated responsibilities between the global North and developing countries, the paper argues for more involvement of developed countries in R&D activities related to Jatropha. It proceeds to argue that without legal and policy instruments (local and international) on biofuel, encouraging indigenous people to cultivate Jatropha is tantamount to changing their traditional lifestyle (pastoralism) without a foreseeable future. Other adverse effects such as land clearing due to competitive prices of Jatropha are also discussed. The author concludes that for biofuel campaigns to benefit local communities at the grassroots and the global South at large there is a need for closer scrutiny of players in the field and answering the question as to whether or not the international community is ready for biofuel.

KEY WORDS: Biofuel, Environmental Justice, Indigenous People, Maasai, Technology Transfer, Tanzania

Jatropha in Maasailand: Why, How and for Whose Benefit?

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I. INTRODUCTION

This paper is about indigenous people and climate change. It addresses the adverse effects of the current climate change mitigation regime on indigenous people with special focus on the Maasai. For introductory purposes, we endeavor to answer the following questions: What is climate change and how does it affect indigenous people? Who are indigenous people of Africa? Who are the Maasai? What is Pastoralism? It is assumed that after answering these questions, the reader will be in a better position for the ‘Why’, ‘How’ and For ‘Whose Benefit’ parts of the article which will be addressed consequentially as follows. Part two answers the ‘Why’ question by revisiting the concept of biofuel as an alternative to fossil fuel and the rise of the bio-energy industry. It proceeds to describe *Jatropha curcas* L. it’s traditional use by the Maasai pastoralists as a hedge (known in the Maasai language as ‘esita’) and as a ‘new’ crop that has attracted the attention of local and international entrepreneurs. Part three answers the ‘How’ questions by, among other things, a critical examination of social-legal issues related to the growing of energy crops in Tanzania’s Maasailand. Specifically, this part discusses legal and policy issues relating to sustainable livelihoods, property rights and land tenure among indigenous people and their likely effect due to the bio-energy boom. Effects of biofuel on food security and the environment are also discussed. Part four ‘For Whose Benefit’ raises and discusses North-South issues relating to climate change mitigation. The principle of common but differentiated responsibility is invoked to argue that indigenous people (and indeed developing countries in general) should not be pressed in

the corner to the extent of viewing climate change mitigation as a liability rather than an asset. Part five concludes this paper by exploring the question as to whether or not the international community is ready for biofuel. It also examines the main players in the bio energy industry. The author concludes that social, cultural and environmental costs outweigh the (temporary) economic gains of Jatropha trade among indigenous people.

a) The Meaning and Impact of Climate Change on Indigenous People

It is not too difficult to pull together these two concepts namely climate change and indigenous people.¹ Indeed, as far as indigenous people are concerned, climate change is a life and death issue rather than just another global environmental concern.² In the context used here, climate change is a negative response currently experienced in the world as a result of the growth of green house gas emission due to the burning of fossil fuels, resulting mainly from industrial activities and motor transportation.³ As a result of this ‘smoke’ from cars and machines, carbon dioxide gas (among other gases) is built up in the air and increases the level of heat in the world. This is known in scientific terms as

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¹ For an in-depth discussion see generally IUCN The World Conservation Union “Indigenous and Traditional people and Climate Change” Issue Paper May 2008 and Jan Salick and Anja Byg “Indigenous People and Climate Change A Tyndall Centre Publication” Tyndall Centre for Climate Change Research, Oxford May 2007

² The fact that indigenous people eke their living direct from the environment makes climate change a catastrophe whose impact on livelihood can not be over emphasized. It has also been argued that in order to reduce Carbon dioxide gas emission, there is a need to learn from simple lives of indigenous people. Rhetoric apart, indigenous people can offer useful lessons on how to live in harmony with Mother Nature only if given an opportunity to do so.

³ United Nations, Department of Economic and Social Affairs, Division for Policy and Development “Climate Change, An overview” Paper prepared by the Secretariat of the United Nations permanent Forum on Indigenous Issues, November 2007 (hereinafter UN Climate Change: An overview)

‘green house effect’.⁴ This definition emphasizes on ‘human induced’ climate change. Explaining climate change as a result of human activity is helpful in two ways. First it inspires people to take action instead of clinging to the ‘psychology of blame’ and secondly, it helps to illustrate the notion of equal but differentiated responsibility among States. For example, if climate change is a result of the burning of fossil fuel, it does not take much thought to know who are its ‘architects’ and should therefore take the lead in the rectification.⁵ This ‘balancing exercise’ makes climate change a necessarily North-South issue. One more thing makes climate change a rather complex equity issue: those who contributed the least to its process suffer most and are also unable to cope.⁶ Indigenous People top up the list of most vulnerable groups. A recent report issued by the Interagency Support Group on Indigenous Issues (IASG) provides inter alia that “the most advanced scientific research has concluded that changes in climate will gravely harm the health of indigenous peoples traditional lands and waters and that many of plants and animals upon which they depend for survival will be threatened by the immediate impacts of climate change.”⁷ One can argue that climate change is a ‘double tragedy’ to indigenous people all the world over. The first tragedy is obvious: rivers are drying up, medicinal plants and other important plants for food are depleted, water is getting scarcer and this leads to conflicts between Indigenous people themselves. Some

⁴ The subject is introduced clearly by George Philander *Is the Temperature Rising? The Uncertain of Global Warming* (Princeton, NJ: Princeton University Press, 1998)

⁵ The United Nations Framework Convention on Climate Change opened for signature June 4, 1992, ILM 849 (hereinafter UNFCCC) takes this approach. It attributes climate change to human activities and makes a distinction of responsibilities between industrialized countries and developing countries.

⁶ This unfortunate situation is summed up by Mr. Ban Ki Moon, the Secretary General of the United Nations in his speech to the High Level Event on Climate Change on 24 September 2007 as follows: “Today, the effects of climate change are being felt around the world. But they are being felt most by those who are the least able to cope. Indeed, the terrible irony for many developing countries is that, though they have contributed the least to the process of climate change, they are the ones most at risk from its consequences. For some island States and peoples this is a matter of survival. The moral imperative could not be clearer.” Quoted in UN Climate Change: An Overview op cit fn 3 at 3

⁷ Ibid

of these conflicts are quit unprecedented. A good example is how the Taiko Clan of the Maasai in Landanai Village, Simanjiro district, Tanzania wanted to take advantage of statutory provisions to apply for a user right of the Landanai springs traditionally owned by the whole Maasai society as a common property.⁸ Another example of traditional wisdom-shaking event happened in the author's home village of Nainokanoka, located 15 kilometers north of the famous Ngorongoro Crater, Arusha region, Tanzania. Following the 2005/2006 draughts that hit most parts of the country, water scarcity challenged the very nature of Maasai traditional view of 'water ownership'. A nearby tourist hotel, Ngorongoro Sopa Lodge, offered to buy water from the village to cater for its tourists' domestic use. Upon receiving this request, village leaders were not sure whether water could be 'sold' because the Maasai regard water as a gift from God, that should be free for use by any member of the community in need.⁹ In the end, villagers decided to receive a 'gratuity' warning that the act should not be interpreted as 'selling water'.¹⁰ The second tragedy is less obvious: climate change mitigation strategies as provided by the current international climate law regime, by and large, militate against indigenous people.¹¹ Indigenous people suffer most on what they are least responsible for. This latter

⁸ See Ibrahim H. JUMA and Faustin P. MAGANGA "Formalization of Water Rights and its Implications for Equitable Sharing of Water Resources in Tanzania" Paper presented at the 5th Waternet/ WARFSA Symposium: IWRM and the Millennium Development Goals: Managing Water for Peace and Security; Windhoek, 2-4 November 2004 who opine that 'The Landanai case provides a clear example of how an application by a clan for water right could not sustain the wider interests of the village and other customary water users. A traditional hitherto in control over water source, wanted to use the modern system of water rights to reinforce its hold over the source'

⁹ For a description of the Maasai tradition relating to water management see generally Potkanski, Tomasz (1994) "Property Concepts, Herding Patterns and Management of Natural Resources Among the Ngorongoro and Salei Maasai of Tanzania", Pastoral Land Tenure Series No. 6, IIED Drylands Programme, London, International Institute for Environment and Development.

¹⁰ Ormurijoi Loongorkorri, per.com 11. December 2007. Many village elders interviewed by the author admit that severe draught brings many challenges previously unknown and even reducing the traditional hospitality among the Maasai.

¹¹ Clean Development Mechanism CDM is one of the most criticized legal mechanisms when it comes to the rights of indigenous people. Indeed, in 2005 the International Alliance of Indigenous and Tribal

effect will recur in the large part of this paper. However, before going into the details, it is imperative to be acquainted with the term indigenous people especially as used in the African context.

Who are Indigenous People of Africa?

There is no a universally accepted definition of indigenous people. The concept steers great political and semantic disagreement especially in Africa where every one is regarded as ‘indigenous’ to the continent.¹² In general, there are two ways of arriving to the meaning of indigenous people which is inclusive rather than exclusive of certain groups. In the context of the Americas, Australia and New Zealand, the term ‘indigenous people’ is linked to ‘first people’ or ‘aboriginality’. This implies that indigenous people are those people who arrived first in these territories before subjugation and or colonialism.¹³ A ‘working definition’ developed in 1972 by the UN special Rapporteur, the then Mexican Ambassador Jose Martinez-Cobo in his study on “discriminating against indigenous populations” is based on this school of thought. The definition provides that:

Peoples of Tropical Forests declared that “The modalities and procedures for activities under the Clean Development Mechanisms (CDM) do not respect and guarantee our right to lands, territories, and self-determination. CDM and Sinks projects do not contribute to climate change mitigation and sustainable development” Quoted in UN Climate Change: An Overview op cit note 3 at 4. More information on the International Alliance of Indigenous and Tribal Peoples of Tropical Forests is available at <http://www.international-alliance.org/> (accessed on July 19, 2008)

¹² A Report of the African Commission on Human and Peoples’ Rights (ACHPR) issued in 2005 discusses at length this problem of definition resolving that ‘...the main argument that has always been preferred is that all Africans are indigenous to Africa. Definitely all Africans are indigenous as compared to the European colonialists who left all of black Africa in a subordinate position that was in many respects similar to the position of indigenous peoples elsewhere. However, if the concept of indigenous is exclusively linked with a colonial situation, it leaves us without a suitable concept for analyzing the internal structural relationships of in equality that have persisted from colonial dominance.” See Report of the African Commission’s Working Group on Indigenous Populations/Communities, 2005.

¹³ For Overviews see Chris Tennant “Indigenous people, International Relations, and the International Legal Literature from 1945-1993” HUM RTS Q 1 (1994) and S. James Anaya *Indigenous people in International Law* 2nd ed (Oxford University Press 2000)

“Indigenous populations are composed of the existing descendants of the peoples who *inhabited the present territory* of a country wholly or partially at the time when persons of a different culture or ethnic origin arrived there from other parts of the world, over came them and, by conquest, settlement or other means, reduced them to a non-dominant or colonial condition, who today live more in conformity with their particular social, economic, and cultural customs and traditions than with the institutions of the country of which they now form part, under a State structure which incorporates mainly the national, social and cultural characteristics of other segments of the population which are predominant’¹⁴

In the context of Africa, a different yardstick namely reference to ‘marginalization’ rather than ‘aboriginality’ is used to avoid locking out indigenous people who are not necessarily first occupants of their respective lands. According to the African Commission on Human and Peoples’ Rights (ACHPR)

‘Africa’s indigenous people have their own specific features that reflect from specific feature of the African state and its role. They have specific attachment to their land and territory; they have specific cultures and mode of production that are distinct from the groups that dominate political, economic and social power.’¹⁵

In spite of continued discrimination,¹⁶ State denial of not only the existence of indigenous people but also their fundamental human rights, there are currently more than 14.2 million self identifying indigenous people in Africa. Customarily, these groups are loosely categorized in three groups: hunter-gatherers, exemplified by the Pygmy peoples of Central Africa and the San of Southern Africa; fisher people; and pastoralists such as

¹⁴ UN Doc. E/CN.4/Sub.2/1986/7 and Add 1-4; UN Sales No. E. 86.XIV.3 (Emphasis added) Note that fifteen years later Ambassador Cobo “improved” his working definition thus ‘Indigenous communities, peoples and nations are those which, having a historical continuity with pre invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing in those territories, parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories and their ethnic identity as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal systems’ See UN Doc. E/CN.4/Sub.2/1986/7/Add.4, para. 379

¹⁵ African Commission on Human and Peoples’ Rights (ACHPR) Report of the African Commission’s Working Group on Indigenous Populations/Communities, 2005.

¹⁶ The Report of the African Commission on Human and Peoples’ Rights summarizes such discrimination thus ‘Terms such as ‘under developed’, ‘backward’, ‘primitive’ and worse are regularly applied...Along with the negative stereotyping and discrimination comes dispossession of the peoples’ land and natural resources, which leads to impoverishment and threatens their cultures and survival as peoples.’

Maasai of Kenya and Tanzania, numerous communities in Sudan and Ethiopia, Tuareg in west and northern Africa, and the Himba in Namibia.¹⁷ These groups suffer from effects of climate change more than other dominant, established societies.

b) The Maasai and Pastoralism

The Maasai are probably among the most identifiable and well known ethnic groups in Africa. They are a semi-nomadic group living in Northern Tanzania and Southern Kenya.¹⁸ The Maasai meet the above description of African indigenous People provided by the African Commission. They identify themselves so and the rest of Tanzanians regard the Maasai as distinct.¹⁹ The Maasai refer any body who is an outsider as “*Ormeeki*” (plural *Irmeek*). Their language, *Maa* is different from the national language, *Kiswahili*. When it comes to land, the culture of the Maasai, like other indigenous people, is closely tied to land. There are pieces of land and landscapes which have significant spiritual values. These include Endoinyo-oo-rmorwak and Oldonyo Lengai, the Maasai Mountain of God.²⁰

¹⁷ Nyang’ori Ohenjo *et al* Health of Indigenous people in Africa Lancet 2006; 367: 1937–46 Available online at http://www.who.int/social_determinants/resources/articles/lancet_ohenjo.pdf (accessed on August 6, 2008)

¹⁸ See generally Spear, Thomas “Introduction” in Thomas Spear and Richard Waller (eds) *Being Maasai: Ethnicity in East Africa*, London: James Currey and Jacobs Allan “The Traditional Political Organization of the Maasai” DPhil Thesis, Oxford University

¹⁹ There is a popular joke used to explain how the rest of Tanzanians identify the Maasai as a distinct group. In short, it is a government official who, it is alleged, reported about an accident which claimed the lives of five persons and two Maasai!

²⁰ Sadly however, the government of Tanzania has, through the Ministry of Tourism and Natural Resources continued to trample upon and alienate these spiritually significant areas of the Maasai in order to use them for tourism. Without any consent from the Maasai, the Tanzania National Parks Authority TANAPA built its headquarters right on the famous Endoinyo-oo-rmorwak, an area that has been used by the Maasai for spiritual ceremonies for more than five hundred years. As if this is not enough, the government of Tanzania, through the Ngorongoro Conservation Authority NCAA, is now in the process of annexing the ‘Mountain of God’ in the pretext that it is among its tourist attraction. Luckily, however, there is some resistance this time among the Maasai. It is reported that “THOUSANDS of Tanzanians of the Maasai tribe are threatening to make a mass exodus to neighbouring Kenya in protest against the looming

The very first impression that many outsiders get of the Maasai is that they are passionate to their cattle. This is not only a truism but also a necessary “entry point” for explaining the Maasai tradition in a wider perspective. Cattle keeping or pastoralism²¹ is the main stay of the livelihood of the Maasai.²² In spite of the fact that Pastoralism has been the only support for the Maasai and other pastoralists, enabling them to cope with draught and other negative climatic changes, this mode of production remains misunderstood among policy makers. A reputable Tanzanian newspaper columnist summarizes the plight of pastoralism as follows:

PASTORALISM is possibly one of those most misunderstood systems of using land. It is a complex livelihood system seeking to maintain an optimal balance between pastures, livestock and people in uncertain and variable environments. Despite the important role that pastoralism plays in supporting local livelihoods, in contributing to national and regional economies and in providing diverse ecological services, its capacity to adapt to change is facing many challenges including adverse policy and development options, and more recently, climate change.²³

It is beyond the scope of this paper to expound the hostility of the current legal and policy framework towards pastoralists and pastoralism as a mode of production not

annexation of their land by conservation authorities. Close to 5,000 residents of Enkaresero village, located at the foot of the legendary Oldonyo L’engai Mountain (Mountain of God), say they would rather cross the border into Kenya than sit by and watch their land taken away by the Ngorongoro Conservation Area Authority (NCAA)...If we lose, then we have all decided to leave the country and move to Kenya as refugees. After all, it’s a mere walking distance” See BUSINGE MWANKINA *Looming land battle at the foot of ‘Mountain of God’* *THIS DAY* Friday 25th July 2008 Available online at <http://www.thisday.co.tz/News/4343.html> (accessed on August 7, 2008)

²¹ The Tanzanian National Livestock Policy, 1996, defines pastoralism as a “production system in which livestock owners depend solely on livestock for sustenance and income. It entails seasonal movement in search of water and pasture.”

²² In addition to cattle kept in large herds, the Maasai also keep shots (sheep and goats) and donkeys. The former are exchanged with grain during famine and can be slaughtered for domestic use and to show generosity to a visitor.

²³ L. Kironde “PROTECTING THE LAND RIGHTS OF VULNERABLE GROUPS IV: PASTORALISTS AND HUNTERS AND GATHERERS” *Daily News*; Saturday, July 26, 2008 Available online at <http://dailynews.habarileo.co.tz/business/?id=6127> Accessed on August 7, 2008

only in Tanzania but all over Africa.²⁴ However, it is instructive to note that such indifference, by and large, contribute to the marginalization and impoverishment of indigenous people. Coming back to Climate change, pastoralism is one of the social economic sectors which will be highly affected by climate change. Such effects are already obvious. In Simanjiro district scarcity of pasture has lead to intense conflicts between the Maasai and conservation officials of the Tarangire national Park. Sensing the pain that pastoralists were undertaking during the 2005/2006 draughts, the government temporarily allowed pastoralists to graze their livestock inside National Parks. This was viewed as an 'equity' issue since Pastoralists can not prevent wildlife such as elephants, buffaloes and zebras from coming to graze in their land but they themselves are 'out of bound' in these wildlife sanctuaries. It is submitted that these challenges need a rethink of governmental approaches and indeed a review of a myriad of legal and policy instruments related to pastoralism. As will be evident in the next part of this paper the biofuel campaigns will triple these challenges for worse!

I. Why *Jatropha*? Climate Change Mitigation and the Rise of Biofuel

Based on the understanding that the use of fossil fuel is largely responsible for the current state of global warming, biofuel has emerged as a potential alternative throughout the world. The word biofuel refers to the liquid, solid or gas fuel derived from biomass either

²⁴ An interested reader is drawn to the attention of among other publications, Anderson, D., 1999 "Rehabilitation, Resettlement and Restocking: Ideology and Practice in Pastoralist Development" in David M. Anderson and Vigdis. Broch-Due (eds) *The Poor Are Not Us: Poverty and Pastoralism*, ed. Oxford: James Currey and Homewood, K. and Rodgers, A., 1991, *Maasailand Ecology: Pastoralist Development and Wildlife Conservation in Ngorongoro, Tanzania*, Cambridge University Press, Cambridge. Legal and policy issues related to pastoralism in Tanzania are adequately covered by Mattee, A. and Shem, M.N., Tanzania, 2005, "Consultancy report on policies and laws that affect pastoralism in Tanzania". Royal Danish Embassy Dar es Salaam, and Ministry of Natural Resources and Tourism, Tanzanian Government under its ERETO 11 Ngorongoro Pastoralist Project 2nd phase

from recently living organisms or from their metabolic waste.²⁵ The use of biofuel has been received with ambitious targets both by the US and the EU. The US has indicated that it will support the use of biofuel as the main way of combating climate change.²⁶ The EU on its part has aimed to replace 10% of motor transportation fuel by renewable energy such as biofuel by 2020.²⁷ These two world economic giants, through their energy policies (express and implied) have influenced production of bioenergy crops worldwide. As a result, developing countries have been targeted as 'agrofuel farmers'. There is currently a 'scramble' for land among European and American corporations interested in biofuel. Foreign companies already in Tanzania for this 'golden' opportunity include Bio-Alcohol Fuel Foundation (BAFF) of Sweden, Svensk EtanolKemi AB

²⁵ See World Business Council for Sustainable Development WBCSD www.wbcsd.org It should be noted that environmental activists like to distinguish between biofuel and 'agrofuels' in order to show the danger posed by the use of agriculture to generate bio energy. A distinction has also been made between first and second generation agrofuel. According to one study "There is not yet a fixed definition of second generation agrofuels, but some characteristics can be given. They are often defined by the feedstocks (wood, pulp, straw, residues and waste) as opposed to vegetable oils and food crops used in first generation agrofuels. A difference with first generation agrofuels would be that second generation can use the whole plant and not only parts (for instance also using the straw of the wheat). Most common they refer to agroethanol from ligno-cellulosic biomass and agrodiesel from biomass gasification. Main advantages would be not to compete with food, improve the energy performance per hectare and reduce costs. However, sometimes also means 'improved' (genetically modified) agrofuels crops with new traits specific for agrofuel production geared towards producing oil. As most government policies are greatly favouring the development of second generation agrofuels and channeling enormous amounts of money into their research and development, there is a vested interest in being included under the term 'second generation agrofuel'. The EU's agrofuel folly: policy capture by corporate interests Briefing paper, Corporate Europe Observatory (CEO), June 2007 available online at <http://www.corporateeurope.org/agrofuelfolly.html#note07> (accessed on August 7, 2008)

²⁶ Unlike the EU, the USA has not bound itself with emission reduction target nor has it ratified the Kyoto protocol. The countries' energy policies which can conveniently be described as "pick and choose" leaves a lot to be desired. See P. Sands Lawless World: *America and the Making and Breaking of Global Rules* (Penguin Books, 2005) at 91

²⁷ This rather unrealistic goal is opposed even in Europe. The French Minister of Ecology Nathalie Kosciusko-Morizet recently made comments to the effect that "developing a target for the controversial fuel source was "probably a mistake" and that the EU had proposed things the wrong way round: setting environmental and social criteria for the production of biofuels should have been developed first and then any target should have been drafted to match that..." The Italian Economic Development Minister Claudio Scajola was also reported as saying "We took with too much haste the decision on an objective that is not reachable," See LEIGH PHILLIPS "EU biofuels target 'probably a mistake,' France says" EU Observer 30.06.2008 Available online at <http://euobserver.com/880/26419> (Accessed on August 7, 2008)

(SEKAB) of Sweden, Prokon (Germany) and Wilma of the US.²⁸ Being one of the most investor friendly countries in the world, Tanzania is definitely a 'better choice' for these investors. It goes without saying that their presence and promises for breakthroughs they present have 'driven some people crazy' including the government to an extent of promising fertile lands which would otherwise be used to produce food to feed the hungry nation. Unfortunately, however, the whole process is carried out in secrecy and dubious dealings have already been sensed. An Editorial in one of the most respected Dailies in Tanzania summarizes this saga as follows:

Something fishy is going on in the whole issue of biofuel farming in the country. While more and more reports from local watchdogs, non-government organisations, university researchers and Members of Parliament keep asserting that foreign investors have, in fact, been already allocated thousands of hectares in the most fertile pieces of land in the country, the Government has just kept mum. The Tanzania Investment Centre has repeatedly said that even as biofuel investors have been licensed to operate in the country they have not been allocated land till the appropriate legislation is finalised. Yesterday in Parliament Kilwa MP, Hasnain Dewji, said 50-year exclusive leasing rights has been given to a Netherlands based company, Bio-Shape to secure for unknown hectares of fertile land in Mabiji, Migeregere, Nainokwe, Liwiti and Kiwawa areas in Kilwa for jatropha cultivation....²⁹

It is due to the lack of a policy on biofuel that such clandestine practices continue unabated in Tanzania. Even at the international level, there is currently no policy on biofuel.³⁰ It is submitted therefore that without a policy on biofuel, both local and international, encouraging indigenous people to grow Jatropha is tantamount to changing

²⁸ E.N. Sawe "Dynamics and Trends in the Development of Biofuels Industry in Tanzania" Paper Presented at the Forum on Bio-fuel Development in Africa: Opportunities, threats and Challenges for Rural Small-Holders in Tanzania jointly Organized by the Land Rights Research and Resources Institute (LARRRI) & Joint Livelihood Initiative for Tanzania held at the Landmark Hotel,, Dar es Salaam 12th January 2008 (on file with the author) More information about the Tanzania Traditional Energy Development and Environment Organization TaTEDO is available at <http://www.tatedo.org/index.htm>

²⁹ *The Citizen* Time to Come Clean on Bio-Fuel Threat 24 July 2008 Available online at <http://allafrica.com/stories/200807240343.html>

³⁰ See *The Financial Express* "FAO calls for Int'l rules on biofuels" Available on line at http://www.thefinancialexpress-bd.com/search_index.php?page=detail_news&news_id=7997 (Accessed on 17th August 2008).

their lifestyle without a foreseeable future. As for investors aided by governmental authorities, theirs has been a campaign to lure indigenous people with promises for development. These promises for ‘dollars’ has also turned *Jatropha* from a living fence to a wonder plant as will be explained in the next subsection.

***Jatropha*: from a living fence to a ‘wonder plant’**

Jatropha Curcas L (*Jatropha*) is not indigenous to Tanzania neither to Africa. It is said to have been introduced to Tanzania in 1918 by the Germans. Its centre of origin is believed to be Mexico in Central America. The plant is highly resistant to draught and therefore best suited for the rough climate of the Maasai steppe in Tanzania. For over fifty years, *Jatropha* has been growing ‘wild’ in many parts of Tanzania. It is known in Kiswahili, Tanzanian National language as ‘Mbono Kaburi’ (literally graveyard watch). *Jatropha* can live up to 50 years with first seeds harvested after about three years³¹ Among the Maasai the plant has been used as a living fence. Because of its toxicity, it is not bruised by animals kept by the Maasai and therefore serves this purpose most conveniently. Since half a decade ago, however, the story of *Jatropha* has changed. *Jatropha* is no longer just ‘another plant’ or just ‘another grave yard watch’. It has acquired the status of a cash crop nicknamed ‘wonder plant’ and it makes more headlines than shortage of food that it partly aggravates. The information given to Tanzanians about the plant is mostly positive. “Revelations” concerning the usefulness of *Jatropha* continue to amaze

³¹ For more information on *Jatropha* in Tanzania see generally, Chachage, B. (2003) ‘*Jatropha* oil as a renewable fuel for road transport. Policy implications for technology transfer in Tanzania’, Masters thesis, International Institute for Industrial Environmental Economics, Sweden. And Janske van Eijck and Henry Romijn “Prospects for *Jatropha* Biofuel in Developing Countries: An analysis for Tanzania with Strategic Niche Management” Paper Presented at the 4th Annual Globelics Conference “Innovation Systems for Competitiveness and Shared prosperity in Developing Countries” Available at <http://fp.tm.tue.nl/ecis/Working%20Papers/Ecis%20wp151.pdf> (Accessed on 19th August 2008)

Tanzanians of all cadres.³² It is not immediately known whether or not these excitements among innocent members of the public will lead to frustration or rejuvenated hope.³³ Even before this is established, there are Jatropha projects already “making a difference” in rural areas. Among the Maasai pastoralists two ambitious Jatropha projects exists. One in Terrat, a once famous village for maize and beans cultivation in Simanjiro district and the second is in Engaruka, an equally famous village whose agricultural history goes back to the late Iron Age.³⁴ Whether or not these projects are compatible with pastoralism, the social and cultural implications of bioenergy crops to indigenous people and effects of agrofuel on food security is the subject matter of the next part of this article.

II. Social Legal Issues

As already discussed in part one of this paper, the Maasai are indigenous pastoralists whose lifestyle has been, by and large, dependent on livestock keeping. They have developed complex techniques for adopting adverse effects of climate change. Introducing them to this ‘new economy’ of growing bioenergy crops is likely to alter a complex social structure which has been holding together the society’s cultural and economic identity for millennia. Not all changes can be resisted. However, this change ‘imposed from outside’ needs to be scrutinized. The Maasai have been able to resist any temptation to give up their sustainable lifestyle for short term economic activities geared

³² See Ludger Kasumuni “Dar researchers make breakthrough in use of Jatropha plant to solve energy crisis” *The Guardian*, 2006-04-07 09:04:54

³³ Biofuels farming in Tanzania has not spared food crops and other traditional cash crops. Currently there are projects to use sugar cane, cotton megalocarpus, palm oil and sunflower for biofuel. Although these are all in their infancy stages, there is every reason to believe that they will undertake food production. The government of Tanzania, however, seems more delighted to Jatropha than other crops probably because it grows in arid and semi arid environments where land is regarded as ‘free’ even though it is occupied by the Maasai Pastoralists

³⁴ Graeme Barker and David Gilbertson Engaruka: farming by irrigation in Maasailand c.AD 1400-1700 *The Archaeology of Drylands*, Volume 1, Part 4 November 2000 , pages 201 - 219

towards profiting others. In Kenya a Maasai elder is quoted to have told the then Director of the Kenya Wildlife Services KWS Dr. Leaky (who had advised the Maasai to refrain from pastoralism and earn money from tourism instead) “We don’t want to be dependent on these tourists. We are Maasai and we want to herd cattle.”³⁵ The same argument could be advanced against biofuel; however, the bioenergy movement seems stronger than the tourist wave as it is backed by the most powerful of world’s economies. Growing *Jatropha* in pastoral lands has other consequential implications ranging from land tenure issues to food security and environmental degradation. We embark on a discussion of these issues drawing examples from past experiences of the Maasai and other indigenous people in the world.

a) The land question

From colonial time to the present, Maasailand has been ‘every body’s weeping boy’. Land grabbing has, more often than not, gone hand in hand with human rights violation including killing of innocent civilians. With the independent constitution which allowed every Tanzanian to live wherever he wants, powerful agricultural tribes invaded the then Maasai land (or Maasai district encompassing present day Monduli, Kiteto, Longido, Ngorongoro and Simanjiro districts) taking large tracts of land for their enjoyment. All they had to do was to obtain a piece of paper from some governmental authority and order the eviction of the Maasai often at a gun point. Worse enough, government officials supposed to protect Tanzanian’s personal property according to law, fall into the same trap of ‘land grabbing’. Ringo Tenga, one of Tanzania’s leading land lawyers illustrates:

³⁵ See George Monbiot “Keepers of the Artificial Wilderness” *BBC Wildlife magazine*, July 1994
Available online at <http://www.monbiot.com/archives/1994/07/01/keepers-of-the-artificial-wilderness/>
(accessed on 19th August 2008)

The Lolkisale area is located in Monduli District, Arusha Region; on the Rangelands of Northern Tanzania...Land alienations to non-pastoral groups have been carried out either officially or semi-officially so extensively that the Presidential Land Commission showed this to be a typical case of "land grabbing". Land granted to individuals with Title Deeds, under dubious procedures was more than 10,000 acres. The grantees included the Regional administrative officials (the Regional Commissioner heading the list with 1,000 acres); military leaders, prominent businessmen etc.³⁶

Maasai pastoralists have also been victims of government lead evictions to 'conserve' natural resources especially wildlife. While environmental arguments such as availability of 'endemic' and 'critically endangered' species are always advanced to justify such evictions, to a trained ear it is all about economic gains. Tourism 'pays' more than pastoralism. *Jatropha Curcas* L, like tourism, seems to be the 'necessary evil' in Maasailand among policy makers. *Jatropha* grows better in arid and semi arid environment and the Maasai steppe gives the exact conditions needed. The crop also needs an extensive area of large scale production for profit. Maasailand seems the right place because there is an 'idle land' or better still no mans land! Lack of concrete buildings and corrugated iron sheets makes government officials all over Africa to consider indigenous people's land as terra nullius.³⁷ It is submitted that the Maasai oppose any large scale, investor-lead biofuel in their land if they are to protect their heritage for their future generation. The battle to reclaim land leased to investors for the so called "community tourism" is already a mammoth task among NGO's and community leaders. It is advisable to "take land seriously" is pastoralism is to continue.

³⁶ Ringo Tenga Legislating for Pastoral Land Tenure in Tanzania: The Draft Land Bill. Land Rights for the New Millennium available at <http://www.whoseland.com/> (accessed on 1st February 2008)

³⁷ Apart from the government, pastoralists in Tanzania may lose their lands to 'investors', 'non profit making organizations' and other philanthropic societies engaged in Climate Change mitigation. It is usually difficult to predict their intention for most of them come to the community like 'sheep' only to discover later that they are wolves in sheep's skin

b) Food Security

According to the Food and Agriculture Organization (FAO), food³⁸ security exists “when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preference for an active and healthy life.”³⁹ This definition shows that focus has moved from the global and national perspectives prevalent after the Second World War, to the household and individual levels, where the problem of food security emerges in a more concrete way.⁴⁰ Thus, the conceptual understanding of food insecurity has gradually evolved over the years to include “not only transitory problems of inadequate supply at the national level, but also chronic problems of inadequate access and unequal distribution at the household level.”⁴¹ FAO’s statistics on the world food security indicate that currently more than 800 million people throughout the world have no enough food to meet their basic needs.⁴² Projections indicate that although the annual world agricultural growth has decreased from 3% in the 1960’s to 2% in the past decade, world food supply will continue to outpace the world’s population growth at least until 2020. It is estimated further that Sub Saharan Africa and

³⁸ Food is defined to include not only cereals, oils, and livestock products, but also other products such as fruits, pulses, roots and tubers, other vegetables, cocoa, and sugar see Braun, J. von, H. Bouis, S. Kumar, and R. Pandya-Lorch. 1992. Improving food security of the poor: Concept, policy, and programs. Washington, D.C.: International Food Policy Research Institute.

³⁹ FAO 1996; Rome declaration on world food security and World food summit plan of action World Food Summit.; Rome, Italy: Food and Agriculture Organization of the United

⁴⁰ Maxwell S.1996. Food security: a post-modern perspective. Food Policy 21 (no. 6): 155-170.

⁴¹ John M. Staatz; Victoire C. D’Agostino; Shelly Sundberg Measuring Food Security in Africa: Conceptual, Empirical, and Policy Issues American Journal of Agricultural Economics, Vol. 72, No. 5, (Dec., 1990), pp. 1311-1317

⁴² FAO; 1999 *The state of food insecurity in the world report*; Rome, Italy: Food and Agriculture Organization of the United Nations World Food Situation

South Asia are expected to remain the focus of hunger in the developing world.⁴³ It is also instructive to note that due to their economic and social marginalization, indigenous people are most affected by frequent food shortages in Tanzania.⁴⁴ Unfortunately, instead of trying to find out possible solutions for this problem, the government of Tanzania has, more often than not opted to 'deny every thing'. Whenever newspapers come up with reports on famine among indigenous people, the government quickly dismisses such news as allegations, not backed by any research. The public outcry against biofuels for its contribution to the escalating food prices has reached ears of policy makers all over the world thanks to FAO.⁴⁵ The usual excuse invoked by advocates of *Jatropha* is that it is not a 'food' crop and therefore has nothing to do with the escalating food prices worldwide. This is not only a lame excuse but also a big lie. The basics of Economics in general and 'demand and supply' in particular proves that farmers will almost always cultivate what gives them immediate profit. Indeed it is not the first time that 'imposed' cash crops destabilize agriculture and cause famine in Africa. During colonialism, for example, Tanzanian farmers were forced to grow sisal, coffee and tobacco to meet European industrial needs to the extent of failing to have daily food. It is worthy to emphasize here also that for almost a decade now, efforts have been underway to encourage the Maasai to cultivate food crops for subsistence having become clear that

⁴³ Ibid

⁴⁴ It was recently reported for example that the Hadzabe, a remnant of hunter-gatherers in Tanzania are faced with acute food shortage. See Mussa Juma "Mbulu Needs 200 Tons of Maize" Arusha Times 2nd August 2008. Available on line at <http://allafrica.com/stories/200808040794.html> The Reporter quotes the Honorable Elias Goroi, Mbulu District Commissioner as saying the following about the Hadzabe Indigenous minority, a typical tone of government officials with little if any tolerance towards diversity ""We gave them seeds for the season but they consumed them as their immediate food and even the hoes that we provided them for agricultural purposes were converted to traditional weapons,"

⁴⁵ From 3rd -5th June 2008, FAO organized a High level Conference on World Food Security: The Challenge of Climate Change. This Conference received adequate media coverage both in the "North" and the "South" evidencing the fact that food security is among the most important concerns of mankind.

they are no longer able to meet their dietary requirements through livestock keeping alone. Unlike cultivating *Jatropha* for cash, corn and beans growing for subsistence is compatible with pastoralism and has been practiced for many years. It is therefore quite unbecoming to encourage 'agrofuel' instead of trying to improve food crops to curb famine.

c) Environmental Degradation

One of the marks of environmental degradation left behind by colonialists in Africa is the introduction of monoculture: the growing of uniform crops in a given area. This has caused soil infertility and such crops turned into a 'burden' to the people of Africa who are unable to uproot them and use such lands for other productive activities. This wide and unchecked move to grow *Jatropha* seems to point to the same direction. Agrofuel will also lead to the loss of biodiversity. Hungry cars are bought every day while nature takes long to regenerate. 'Supply and demand' theory will almost certainly lead to the clearance of forests for more land to grow bioenergy crops. This, in turn goes against the UNFCCC's Conference of Parties decision to Reduce Emission from Deforestation in Developing Countries (REDD).⁴⁶ Tanzania is one of the world's biodiversity hotspots, that is, a place where endemism and threat coincide. It is expected therefore that all efforts will be used to avoid loss of biodiversity. Another aspect of environmental degradation that comes after agrofuel is introduction of invasive species. Invasive species is 'an alien species which become established in natural or semi natural ecosystems or

⁴⁶ See Decision 2/CP.13, Reducing Emission from Deforestation in Developing Countries: Approaches to Stimulate Action in *Report* of the Conference of Parties on its Thirteenth Session, held in Bali from 3 to 15th December 2007. It has been argued that forests around the world contribute more to global emission each year than does the transport sector. See Ion Fry "Reducing Emissions from Deforestation and Forest Degradation: Opportunities and Pitfalls in Developing a New legal Regime" *RECIEL* 17 (2) 2008 (166-182) at 167 and N. Stern, *Stern Review on the Economics of Climate Change: Executive Summary* (Cambridge University Press 2007)

habitat is an agent of change and threatens native biological diversity.’⁴⁷ Tanzania is party to, among other international legal instrument for the control of alien invasive species, the Convention on Biological Diversity.⁴⁸ Although *Jatropha* grows in many parts of the country ‘fairly well’ since it was introduced in early 20th century, large scale cultivation may bring it close to other endemic species and cause untold impact in the biodiversity loss. *Jatropha* can also find itself into national parks and other protected areas given the lack of effective control of invasive alien species in the country. Last but not least, agrofuel poses a great risk of the introduction of genetically modified (GM) plants in the country.⁴⁹ This is not only due to the fact that the government is ill equipped to deal with Biosafety issues but also due to widely perceived misconception among civil servants that investors are not interfered with as a way of attracting them into the country. As a result many of these investors are in high seas where Tanzanian laws have little, if any thing to do, to regulate their conducts let alone to question the environmental and social impact of their activities.⁵⁰ We can see therefore that agrofuel cultivation is detrimental not only to indigenous Maasai pastoralists but also Tanzania and developing

⁴⁷ IUCN-The World Conservation Union. 2000. IUCN GUIDELINES FOR THE PREVENTION OF BIODIVERSITY LOSS DUE TO BIOLOGICAL INVASION (Approved by the IUCN Council, February 2000)

⁴⁸ The United Nations Convention on Biological Diversity Opened for Signature on June 5, 1992 ILM 818 (1992) The Relevant Article, Article 8 In-situ Conservation provides that Each Party Shall, as far as possible and appropriate: (g) Establish or maintain means to regulate, manage or control the risks associated with the use and release of living modified organisms resulting from biotechnology which are likely to have adverse environmental impacts that could affect the conservation and sustainable use of biological diversity, taking also into account the risks to human health; (h) Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species;

⁴⁹ There is every reason to believe that many, if not most of the companies involved in the production of *Jatropha* will “go LMO” in order to maximize production regardless of environmental harms. According to InfEnergy Tanzania Ltd., a private company specialising in the production of biodiesel from vegetable oils which has established a 20 acres field trial in Moshi, Kilimanjaro Region “...plant breeding experts have begun looking into ways of producing *Jatropha* hybrids and clones that will have selected qualities such as higher yields, higher oil content, drought resistance and resistance to pests and diseases. “
<http://www.jatrophatanzania.com/> (accessed on 19th August 2008)

⁵⁰ See Tundu Antiphas Lissu ENVIRONMENTAL IMPACT ASSESSMENT OF FOREIGN INVESTMENT PROJECTS: A Study in the Law, Policy and Governmental Decision-making in Tanzania available online at <http://www.lead.or.tz/publications/foreign.investment/index.php>

countries in general. All the above expounded factors notwithstanding, there is still a move to turn Tanzania into the ‘middle east of biofuel’ the question is for whose benefit? The answer to this question or the lack of it, underlines the imbalances underpinning the current international climate law regime. The next part of this paper attempts to substantiate this contention.

III. Jatropha: For Whose Benefit?

The Biofuels boom does not come accidentally. It is a direct result of the crisis in the global North whose origin goes back to the Industrial Revolution. When the Maasai, other indigenous people and indeed the global South is asked (or rather forced) to grow Jatropha, a legitimate question that comes to mind is, for whose benefit? Certainly they have not exceeded their carbon limit (if any) and must hurry up to rectify the situation.⁵¹ We agree however that climate change mitigation, like other environmental hazards, is a global issue. In this sense, the principle of equal but differentiated responsibilities distinguishes clearly the ‘work load’ of these two main groups.⁵² The American position that even developing countries must start to cut down their emissions if the US is expected to cut its own is simply incomprehensible. It is a form of ‘enforced primitivism’. In this part of the article, we attempt to discuss R&D on biofuel and Technology Transfer showing why the global North must take the lead as part of climate justice.

a) R&D on Biofuel

⁵¹ As much as developing countries are striving to look for alternative fuel to reduce the amount of foreign currency they use to import fossil fuel, agrofuel is simply NOT their top priority.

⁵² See Lavanya Rajamani “The Principal of Common but Differentiated Responsibility and the Balance of Commitments under the Climate Regime 9 REV. EUR. COMMUNITY & INT’L ENVTL. L. 120 (2000)

There are many uncertainties surrounding climate change in general and social-economic impacts of biofuels in particular. Some social impacts such as food insecurity have been making headlines throughout the world. However, there are those who ‘deny every thing’ as far as climate change is concerned.⁵³ An equally dangerous group is that which would like us to believe that the escalating food price has nothing to do with biofuels.⁵⁴ Certainly, there must be negative and positive aspects of biofuel. The question is how do we know? In time of uncertainty R&D institutions must come up and rectify the situation by revealing the truth based on empirical research. It is imperative that developed countries that have ‘more to do’ with biofuels, take the lead in financing R&D. The following descriptions of Tanzania’s R&D institutions speak, loud and clear, against expecting miracles where there is none. “Currently, R&D research funding has been minimal and fairly ad-hoc in nature. Much of the research going on in the country in R&D institutions is currently donor funded, ad-hoc in nature, unreliable in timing and amount, and often not relevant or critical for national development.”⁵⁵ It is obvious that these national R&D institutions can not bear any extra workload without deliberate efforts to build their capacity. It is expected therefore that the global North through relevant R&D institutions will be directly involved in finding out more about biofuels’

⁵³ In his excellent book *Heat: How We Can Stop the Planet Burning*, George Monbiot devotes a whole chapter on the “Denial Industry”. The Author provides inter alia that “While they have been most effective in the United States of America, the impact of the climate-change deniers sponsored by Exxon and Phillip Morris have been felt all over the world-I have seen their arguments endlessly repeated in Australia, Canada, India, Russia and the United Kingdom. By dominating the media debate on climate change during seven or eight critical years in which urgent international talks should have been taking place, by constantly seeding doubt about the science just as it should have been most persuasive, they have justified the money their sponsors spent on them many times over. I think it is fair to say that the professional denial industry has delayed effective global action on climate change by several years.” Monbiot, George *Heat: How We Can Stop the Planet Burning* (Penguin Books 2006) at 39

⁵⁴ The Brazilian Government has been in the forefront to defend biofuels production to the extent of asserting that its cultivation does little, if any thing to cause food shortage.

⁵⁵ United Republic of Tanzania *Science and Technology Master Plan 2003-2018* (Dar es Salaam University Press 2003) at xvi

social, economic and environmental effects. Such findings should be widely published and simplified enough to be understood by communities at the grassroots. The global North's (moral and political) obligation, however, goes further than supporting R&D. In the next subsection we discuss the complex issue of technology transfer.

b) Technology Transfer

Technology Transfer has become an important part of many, if not most of the modern International Environmental Conventions. This involves enabling countries with less effective scientific base to acquire modern technologies that enhance their environmental protection while promoting sustainable development.⁵⁶ The Kyoto Protocol contains explicit provisions on Technology Transfer. It provides inter alia that:

All Parties, taking into account their common but differentiated responsibilities...shall

(c) Cooperate in the promotion of effective modalities for the development, application and diffusion of, and take all practicable steps to promote, facilitate and finance, as appropriate, the transfer of, or access to, environmentally sound technologies, know-how, practices and processes pertinent to climate change, in particular to developing countries, including the formulation of policies and programmes for the effective transfer of environmentally sound technologies that are publicly owned or in the public domain and the creation of an enabling environment for the private sector, to promote and enhance the transfer of, and access to, environmentally sound technologies;⁵⁷

Technology Transfer is, so to speak, a prerequisite for a just climate change regime.⁵⁸

From the above provision of the Kyoto Protocol one can note that Intellectual Property Rights (IPRs) continue to limit technology transfer between the global north and

⁵⁶ See Anderson, Mark *Technology Transfer: Law Practice and Precedent* (Butterworths, 2003) at 2 who suggests that the term technology transfer "...is sometimes used to refer the transfer of up-to-date technology and products from advanced, industrial nations to poorer countries, sometimes on preferential financial terms and with a view to enabling the poorer countries to take advantage of modern techniques for producing goods and services"

⁵⁷ The Kyoto Protocol to the United Nations Framework Convention on Climate Change 3rd Sess. Dec 11, 1997 37 ILM 32 (1998) See Article 10 (c)

⁵⁸ Without technology transfer all efforts by poor people and their governments to mitigate adverse effects of global climate change will be for the benefit of the haves and to the detriment of the have-nots

developing countries. The fact that technological know how relevant for climate change mitigation is protected by patent (among other IPR instruments) makes it difficult for any international agreement to interfere with private property rights of the firms holding patents for such technologies. The 'way out' of this difficulty sometimes opted by developing countries, and which does not help much either, is issuance of a compulsory license by the country needing such technology. Simply defined, a compulsory license is the authorization given by a judicial or administrative authority to a third party for the use of a patented invention, without the consent of the patentee, on various grounds of general interest⁵⁹ Some of the grounds for issuance of a compulsory license are public health and national emergence. It would be quit difficult for example, for Tanzania to issue a compulsory license for the use of a technology to protect the ozone layer.⁶⁰ This is neither a national emergence nor a public health concern.⁶¹ This difference in priority calls for developed countries who have contributed much to the current state of global climate change, to take the matter seriously and ensure that technology transfer agreements empower developing countries for climate change mitigation and adaptation.

IV. Conclusion

This paper has shown that climate change is a reality and it affects local and indigenous people more than dominant, more established societies in developing countries. It has also shown that man induced climate change is a direct outcome of western

⁵⁹ See generally Correa, Carlos *Integrating Public Health Concerns into Patent Legislation in Developing Countries* (2000) South Centre Geneva

⁶⁰ Eliamani Laltaika "Twenty Years of the Montreal protocol on Substances that Deplete the Ozone Layer: A Unique Experience for the Enforcement of International Environmental Law? Paper presented to the Sixth Scientific Conference of the Tanzania Wildlife Research Institute TAWIRI held at the Arusha International Conference Center AICC 3rd to 6th December 2007

⁶¹ Bird Flu (Avian influenza) and HIV/AIDS are the two areas that are convincingly significant enough to prompt the issuance of a compulsory license on the ground of both emergence and public health.

industrialization and argued for more involvement of developed countries in R&D related to Jatropha and other bioenergy crops. There are two questions however, that need to be answered if the global South is meant to gain from climate change and its subsequent quest for biofuel. We turn to these two questions to conclude this article.

a) Is the World Ready for Biofuel?

As we have learnt, there is a mad rush for biofuel growing in Tanzania and other developing countries. Indigenous people are being pushed away from their ancestral land to give room for agrofuel and related projects⁶². It is disheartening however, to note that developed countries that are advocates of biofuel cultivation and related activities continue to build nuclear energy in their countries and support fossil fuel projects in developing countries. According to one climate law researcher ‘over 60% of all energy R&D undertaken around the world during the last forty years has been spent on developing nuclear energy. In sharp contrast, a meager 6% has been used to support renewable energy.’⁶³. We may pose and ask a question: Biofuel or Nuclear? Apart from Nuclear Energy, both the EU and the US are heavily involved in fossil fuel exploration. ‘The EU alone sponsors the use of the most polluting fuel, coal, with an annual \$ 10 billion.’⁶⁴ In short there is clearly no meaning in encouraging developing countries to embark on agrofuel causing trouble to their citizens and destabilizing their economy before it is crystal clear that the international community is ready for biofuel. Likewise, concerned authorities in Tanzania should not encourage indigenous people to embark on

⁶² In Uganda, for example the Berne indigenous People have been pushed out of Mount Elgon national park in order to allow a Dutch Company FACE Foundation to plant trees for carbon sinks.

⁶³ Marco Verweij “A Snowball against Global Warming: An Alternative to the Kyoto Protocol” Preprints aus der Max Planck-Projektgruppe Recht der Gemeinschaftsgüter Bonn 2001/11 citing the source of numbers as Energy and Technology R&D Statistics of the International Energy Agency http://data.iea.org/link_wds.asp

⁶⁴ Ibid

a fruitless campaign to turn their land into the middle east of biofuel. Without a policy on biofuel, both national and international, encouraging indigenous people to cultivate biofuel is tantamount to changing their lifestyles without a foreseeable future. However, this observation is, probably ‘too little too late’ due to the fact that biofuel growing is already in progress not only in Tanzania but in other developing countries as well. This suspicion leads to another equally pertinent question: Will this biofuel eradicate poverty and enhance sustainable development as promised by its advocates? Well, the answer is simple: it depends! It depends on who are the main players in the field! The next subsection provides more insights.

b) Who are the main players in the field?

As it has been provided in part two of this research, the biofuel industry has attracted entrepreneurs from across the globe to come to Tanzania. Among these venturesome pioneers are Trans National Corporations TNC’s.⁶⁵ A lot has been written on corporations’ quest for profit maximization. According to one author

The Corporation...is all about creating wealth, and it is a highly effective vehicle for doing so. No internal limits, whether moral, ethical or legal, limit what or whom corporations can exploit to create wealth for themselves and their owners’⁶⁶

This implies that what takes a corporation all the way from Europe to a tiny village in the Maasai steppe is nothing more than pursuit for profit. Environmental conservation and

⁶⁵ The 1992 UN Draft International Code of Conduct on Trans National Corporations described a TNC as “... comprising entities in two or more countries, which operate under a system of decision-making centers, in which the entities are so linked, by ownership or otherwise, that one or more of them may be able to exercise a significant influence over the activities of others” See The United nations Commission on Transnational Corporations Draft International Code of Conduct on Transnational Corporations UN Doc E.C. 10/1982/6 (1984) ILM 626

⁶⁶ Bakan J. *The Corporation: The Pathological Pursuit of Profit and Power* (Constable & Robinson Ltd 2004) 8

lives of people comes last if at all.⁶⁷ Although it is consoling to learn that corporations are increasingly held liable for violating human rights, the pertinent problem in raised in this presentation still remains unsolved: amid corporations as main players will biofuel benefit developing countries in general and local and indigenous communities in particular? The answer is ofcourse negative as evidenced by the history of Africa and international commoditization of its natural and human resources. This has taken a span of four hundred years from slavery to colonialism to neo colonialism backed by globalization. Although Africa has been supplying the rest of the world with the raw materials needed for industrial development, it has not benefited from such riches. The plundering, looting and unfair commercial practices have undermined any attempts by the continent to come out of the bondage of poverty. There are ofcourse other self inflicted problem such as corruption and civil wars but externalities seem to top up the list of tribulations. It is the author's opinion that given the biofuel industry will benefit western TNC's and not developing countries as advocated by these TNC's "public relation officers" in governments and private sectors. It is opined further that should there be a genuine consensus for the pursuit of biofuels as an alternative for fossil fuel; the global North should assist developing countries on how to take advantage of their geographical and ecological position to benefit from bio energy production. Failure to do this is tantamount to using climate change loopholes to widen the gap between the North and developing countries.

⁶⁷ Historically Corporations were considered as immune from judicial liability. In the famous case of Sutton's Hospital (1612) Lord Locke opined that "A corporation is itself only in abstracto, and rests only in intendment and consideration of the law, for a corporation aggregate of many is invisible, immortal, and rests only intendment and consideration of the law, they can not commit treason, nor be outlawed, nor excommunicate, for they have no souls, neither can they appear in person but by attorney..."

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