

THE GEOPOLITICS OF AGROFUELS

first meeting of groups from the South was held in Ecuador-0 latitude 27th June-1st July 2007, to discuss agrofuels and the challenge of "development" in a post petroleum society. This position statement embodies the essence of our discussions, to open the debate from the Global South:



Appropriately labelled by the social movements as AGROFUELS, the so called "biofuels" and the generation of energy through biomass as a whole, as promoted by governments, corporations, development agencies, the United Nations, financial international institutions and other agents interested in industrial production and international trade – does NOT change, but PERPETUATE the model of production and consumption of the modern, urban and industrial social, political and economic order.

The ecological and energy crises that impact on the entire planet, particularly the urgency to stop global warming, urges the world to take a giant step towards transition to a post-petroleum society and economy, requiring deep analysis and structural social, political and economic changes.

Admitting that it is necessary to embrace alternative renewable energies, it is indispensable to analyze the global strategy that drives the feverish promotion of agro energy and its structural imperatives.

Hydrocarbons are the main driving force of the globalized economy, where the extraction and control of fossil fuels has an intrinsic relationship with the networks of power that control the world through control over energy. In addition, it is an undeniable fact that in the current oil civilization the main disasters, climatic catastrophes, wars, famines, forced displacement and enslavement of people are inextricably linked to the military control over territory and fossil energy.

The energy / industrial matrix based on fossil fuels, which sustains the current urban-industrial civilization and the development status, is in crisis. These energy sources are becoming exhausted, so capitalism is desperately searching for new methods of energy generation, including agrofuels. From our perspective as agroexporting countries of the South, forced into this position by the logic of external debt and our colonial history, agrofuels embody the further entrenchment of the agribusiness model and industrial agriculture, understood as the sum of monocultures, genetic engineering, agro-toxics, environmental destruction and impoverishment of our societies especially those in our rural areas.

In addition, Agrofuels means setting up a new global geopolitical grand

1. Precedents and axes of resistance: Food Sovereignty

The industrial agriculture model that begun with the Green Revolution is petro-dependent in energy and inputs. In addition, at the historical root of the current industrial monocultures are plantations, a colonial invention, which still today, reproduces and multiplies its rationality and productive logic. The end of the

fossil fuel era thus also sounds the death knoll for industrial agriculture and its antecedents.

The control over the global agro-food system constitutes one of the main components of globalization. The effects of neoliberal policies in the countryside, the expansion of agro biotechnology, the proliferation of free trade agreements, including the struggle against an Agriculture Agreement at the WTO, were the catalyzing force for the coalescence of an international peasant movement (La Via Campesina). The privatization of natural resources and ecosystems in indigenous territories strengthened the resistance of the Indigenous peoples.

The political proposal of these movements is the 'Defence of Food Sovereignty', expressed in the right of the Peoples' to control and decide on their food production, distribution and consumption policies, and whether or not to trade their agricultural surplus once the needs of the population had been secured. This should be done in accordance with their cultural and environmental practises. This is a radical proposal that demands the transformation of the economies of agro exporting in the South and the consumption patterns of the North.

Since agriculture is inseparable from the protection of natural resources such as water and land, decisions over the use and management of such resources cannot be made by individual producers based on the private ownership of land. Thus, the political principle of Food Sovereignty espouses that the self determination of peoples to guaranteed by the respect of their right to collective decision making in respect of food production and agricultural, pastoral, fishery or gathering activities, emphasizing this to be a fundamental principle.

The industrialization of agriculture by its very nature, results in displacing the peasantry from the countryside as it embodies an

agricultural system without farmers. This model has far-reaching implications for the whole of society. It implies dispossession of communities of their land and the plunder of their territories,

concentration and privatization of land and water sources, erosion of biodiversity, destruction of natural ecosystems, and the violence and militarization required to force control over natural resources.

This process of marginalization of communities that begins in the countryside is the cause of accelerated urbanization that resulted in the Taking in account the richness of the shared political debate developed by social movements, we firmly locate the agrofuels subject – which has already been defined as a the further entrenchment of agribusiness – within the context advocated by Food Sovereignty.

crisis of energy supply, housing, health and other basic services, jobs and access to food in the cities. Urban poverty breeds violence, conflicts and the societal malaise that typifies the cities across the South.

It is a global, hegemonic and dialectic process that breeds the current indisputable ecological and energy crisis. This crisis cannot be 'solved' throughtechnological answers such as transgenic seeds being offered as a solution to "hunger" while the real intention is the control of agricultural production, the imposition of intellectual property rights, and the commodification of life and Nature.

Agrofuels, promoted to solve an energy crisis, is a false solution to climate change, which demands the perpetuation of the structural problems generated by urban conglomerates, supplied by goods transported from different places around the

planet, and that oblige people and goods to move increasingly over longer distances feeding off a never ending demand of energy.

Nor can solutions come from market instruments such as carbon trading, the sale of environmental services, certification schemes, "sustainable" round tables, the introduction of "carbon plantations" prescribed by the Clean Development Mechanisms of the Kyoto Protocol, and other such schemes promoted by market environmentalism, which we vehemently oppose.

These false solutions framed in the **ideology of "development",** mushroomed after the Second World War as a way to extend colonialism. Policies institutions and structures were created with reference to this ideology, which in the name of development, prolonged and diversified the nature of ransacking of the South. At the end of the 20th century, development got dressed up in 'Green' and the term "sustainable development" was created to "sustain" the dominance of the colonial model.

The points set out above represent an attempt to encapsulate the richness of the debate at our meeting and express the complexity of the reflections and contributions. We consider these as being non-negotiable. If you share our vision, we invite you to continue this reading.

2. The geopolitics of agrofuels

The submission of the local agricultural systems to the industrial model and to an exogenous energy demand is a political matter, implying power relations over ecosystems and peoples. This power manifests itself on two well-defined levels:

First: The current global dependency on fossil fuels is satisfied through the geopolitics of war

To guarantee the control over hydrocarbon resources, and now overagrofuels, the industrialized countries and their transnational corporations, have developed both economic and financial mechanisms and political and military ones. In this respect, international commercial agreements have been designed to allow free access to the resources through market laws.

These trade agreements, bilateral or multilateral, come hand in hand with the expansion of infrastructure projects (ducts to transport gas, oil, minerals and currently agrofuels as ethanol or biodiesel; roads, hydroways, ports, processing infrastructure, storage and expenditure of fuels, electrical installations and so forth. The international financial institutions, through diverse strategies and mechanisms, trick and condemn countries into a spiral of dependence and death, for example through debt.

When a government or the people attempt to break from this dependence, they risk swift and brutal economic, political or military reprisals. The geopolitics of oil is designed not only to guarantee access to hydrocarbons, but also to control its distribution. This explains many of the armed conflicts in the Middle East, Afghanistan the Caucasus and Central Asia where the control over hydro-carbon transport routes are heavily contested by American, European, Russian and Asian companies and countries that back them.

Just as a new geopolitics was forged to secure access to fossil fuels, in the same way a new correlation of forces is created around the agrofuels industry worldwide. The clearest example is the Lula-Bush alliance (Brazil and The United States) for the creation of a global market of agroenergy commodities, which is already translated in a rearrangement of the global balance of power. This is why the recent announcement by Brazil to restart its nuclear program and the cycle of uranium enrichment, did not elicit the outcry and condemnation that countries such as Iran and North Korea have met for using the same technologies. Brazil is today, part of the circle of friends of the US and for the time being, beyond political reproach.

Nevertheless, we state categorically and without any ambiguity that nuclear power is unacceptable –this position is non-negotiable-no matter the pretext that nuclear energy may be promoted. Humanity and the environment have already experienced enough destruction and suffering from its consequences.

Second: The geopolitics of agrofuels compels a global territorial rearrangement.

In the first instance, this reorganization entails the colonization of territories used for food crops, to produce energy commodities, and with it will come the obvious price competition with food (the Mexican maize case in early 2007 is a clear example), setting off a chain reaction on the whole economy.

On a wider level and related to the use of so-called 'second generation' agrofuels from non-food species (such as eucalyptus, switch grass, Miscanthus, among others), this rearrangement will result in the occupation of land on an exponentially increasing scale. Thus, to "replace" fossil fuels with agrofuels, will impact more seriously on rural populations, generating strong rural to urban migratory flows.

This pressure on land will be deepened as a result of the mantra that agrofuels will be grown on so called "marginal lands" or "arid land". These lands are amongst those that has been left out of the agro- industrial scheme and feed most of the poor and peasant populations and indigenous peoples of Africa, Asia and Latin America, who live in non-commercial cultures. It's on these "marginal lands" that millions of hectares of Jatropha are intended to be introduced, plantation style in arid regions of India, the Sahel and West Africa.

To summarise, the reproduction of capitalism in a society in-transition to a post- petroleum era depends on the incorporation and control, even by military means, of gigantic areas of territory. So, the axes of resistance are to ensure the integrity of sovereignty over land, guaranteeing access to local food and energy: strengthening energy and food sovereignty and redefining political sovereignty.

3. The large agrofuel routes

Currently, we have identified three gargantuan critical 'routes' to facilitate the uptake of agrofuels in the South:

A. The ethanol alliance.

Brazil, the United States, and the Central America corridor.

The strategic and media alliance between Lula and Bush: As heads of the two world leading countries in ethanol production (sugar cane and maize), have a clear and common objective: to define a new geopolitics for Latin America (oil vs. agrofuels) through the creation of an international market for agro energy commodities, culminating in the "International Conference on Biofuels", supported by UN, set to take place in Brazil in July 2008.

In this context Brazil has as a "country project" - meaning, "political project" - to emerge as the principal supplier of agrofuels and ethanol technology. In this way, President Lula presents himself as a new global leader, and Brazil as the Southern power. To this extent, Brazil has also established strategic ethanol alliances with India, China and South Africa, etc. (through these countries' membership to the International Biofuels Forum), in part to bolster support of the ethanol plan and to help Brazil have access to the UN Security Council. On the economic front, Brazil's interest is to access the USA and European market through tariff advantages held by the Central American and Caribbean countries. In this way, it intends to expand the production of sugar cane and African palm, and processing plants in those countries.

Brazil's National Agroenergy Plan considers the potential expansion of energy crops by an astonishing 200 million hectares, including the "recovery of degraded areas, conversion of pastures and 'reforestation' of the Amazonia with palm". To set this plan in motion, an extensive new network of alcohol-

ducts, storing facilities, ports, routes and hydroways has to be built. This will increase the use of steel coming from the mines of Gran Carajás, the destruction of natural ecosystems and social web on this region of the Amazonia, together with the dramatic increase of cement and concrete production, one of the most energy consuming industries.

B. From the world's barn to global refinery.

Transgenic soya in Argentina and the South Cone.

The transformation of the landscape of Argentina's countryside into 17 million hectares of transgenic Soya monocultures only took 10 years. The production of cereals, meat and other food were replaced in one foul swoop for just one commodity grown for the purposes of exportation, concentrated in the hands of the most powerful international transnational companies. As the world's largest exporter of vegetable oil, Argentina looks forward to becoming the main supplier for Europe's demand for biodiesel. Anticipating a windfall, Argentina, has already asked for preferential tariffs from the EU.

Agribusiness is counting on the exportation of agrofuels and has put in gear a chain of biodiesel production, in association with Argentine big capital such as Vicentín, AGD-Bunge S.A y SACEIF - Louis Dreyfus. This group also includes the big players from the petroleum sector such as Repsol-YPF y the national ENARSA who are participating in agrofuels projects worth 25 to 30 million dollars.

In order to respond to the grain and non-fuel oil demand, and now the Soya biodiesel demand, 4 to 7 million hectares of forests will have to be cut down and destroyed. In addition, 3 to 4 million tons of Soya, will have to be imported from Bolivia, Brazil and especially Paraguay.

To this end, the construction of the hydroway between Paraná-Paraguay has been accelerated in order to drain away the commodities produced in the interior lands to the Rosario port (and refining zone), as captured in the project 'Initiative for the Integration of the South American Infrastructure' (IIRSA). IIRSA envisions the construction of routes, hydroways, and hydroelectric dams with significant investments from the private sector for the agro and resource extraction industries.

This is the vertebral column that secures the political and territorial project of agribusiness in the South cone for the expansion of production and movement of commodities for export to the North, consolidated by agrofuels.

C. The sad history of palm oil.

Palm plantations in natural ecosystems and indigenous territories

At the moment, 88 % of the world trade of oil of palm comes from Malaysia and Indonesia. In the last 20 years the production doubled in Malaysia and trebled in Indonesia, resulting in the disappearance of their tropical forests.

In Malaysia, despite the official defence by its oil palm industry and government that no tropical rainforests have been cleared to plant oil palm in the last 10 years, as early as December 2004, the State Government of Sarawak in Malaysian Borneo was already revealing that some 2.4 million hectares had been licensed out for plantations for both oil palm and pulp and paper. This figure may have climbed to over 3 million by 2007, totalling around a quarter of total land area of Sarawak. The plantation industry in Sarawak often belongs to the transnational timber companies, which after having deforested their concessions for wood extraction will now transform the zone into palm monoculture.

Though indigenous communities, as part of their traditional territories, claim these forests, neither the legislation nor the

government has recognized completely their customary rights, in spite of e continuous protests by indigenous communities. Because of this, it will be very difficult to stop the aggressive expansion of the energy plantations in the territories of indigenous communities, many of which depend on the resources of the forest for their subsistence.

The oil of palm is outlined as the primary source for the production of biodiesel at the cost of natural ecosystems and indigenous territories also in several other tropical countries in Asia, Africa and Latin America, with Colombia being the most disturbing case, as plantations of palm are captured by paramilitarism and displacing entire populations. The expansion of palm plantations in Malaysia and Indonesia and other tropical countries around the world, respond to the increasing demand for palm oil, especially for the European market where new target for agrofuels has being imposed.

D. Africa and agrofuels: in the wake of more destruction?

There are a colossal number of players involved in the promotion of agrofuels in Africa. From these, Brazil the oil companies and carbon traders stand out as being the most strategic-and the most rapacious..

Brazil has swooped on the African continent as an important pawn towards its global ambitions to create a global market for ethanol. Brazil is successfully garnering support through bilateral and trilateral cooperation agreements with a number of African countries such as Senegal and Benin. Brazil has targeted the African Union, flanked by several UN agencies, to ensure regional buy in for the roll out of harmonised legal and economic instruments to sustain a viable biofuels market. Through the International Biofuels Forum, Brazil with its partners, China, India, South Africa, the US and the European Commission will

aggressively promote an international market for biofuels and will force down the throats of the rest of the world, international standards to ensure that ethanol is turned into an internationally tradable commodity.

Several oil companies such as BP, D1 Oils and Petrobras are involved in biofuels projects in Africa, aimed indiscriminately at oil producing and non-oil producing countries alikefrom tiny Swaziland to oil rich Nigeria. These predatory oil companies will support any venture-at any social and environmental cost-as long as it contributes to its global strategy to delay the oil peak. Interest is also being shown in countries like Ghana, to link large-scale plantations of *Jatropha* with the carbon-trading regime of the Kyoto Protocol.

The political stage is thus being set in Africa, for the roll out eventually, of grand schemes of large agro fuel production. Mozambique is set to take the lead in Southern Africa. Through its Mozambique Petroleum Company, it hopes to invest \$55 million in a sugarcane and *Jatropha* agro fuels project for the purposes of supplying the regional and international markets with ethanol and biodiesel.

DECLARATION ON BEHALF OF DE-DEVELOPMENTISM THE PATH WE PROPOSE FROM THE SOUTH



grofuels and the generation of energy through biomass as a whole, that has been promoted by governments, corporations, development agencies, the United Nations, the financial international institutions and other agents interested in their production and their international trade – does not change, but perpetuate the model of production and consumption of the modern, urban and industrial civilization that has led to inequality in the world, wars, poverty, and environmental destruction.

The ending of the petroleum civilization and the reproduction of capitalism.

The **reproduction** of the current western pillaging civilization, whose doctrine is globalized neoliberalism, has fossil hydrocarbons as its material base.

All the driving forces behind the production, trafficking and global marketing of commodities depend on hydrocarbons: the oil industry, the agro food industry, the pharmaceutical companies, of textile fibres, the industries involved in the production of detergents, cosmetics, and explosives, celluloid, plastic in general, construction materials, packaging, domestic appliances, etc. In the same way, the global transport of peoples

and goods, the mobility and speed in which workers and products move around, and are exchanged about the globe also depend on fossil fuels. Now, because automobiles, urban areas are being designed, with construction and expansion of the megalopolis and the occupation or urban space and territories..

The demand for energy and commodities to supply and maintain the life style of the societies in the North, translated daily in food, wardrobe, heating, housing and transport, pigeonholes the universal ideal way of life, wellbeing and "progress" aggressively promoted through globalization as a universal standard for humanity.

In the current paradigm of "growth" oriented towards the integration of the market and global trade, agrofuels are upheld as gradual substitutes for oil to support environmentally unsustainable patterns of production and consumption in the North. The way of life promoted by the North and the elites of the South, best expressed in the so-called "American way of life " must be transformed. The United States together with Occidental Europe, to whom today China and the minority elites of the South are added, are the main consumers of energy. China, the great factory of the world, reproduces the model of production and consumption *created by the North* so that it supplies the global market with everything while the North and South consumes. We understand that the model of growth of China is not a model for or of, the South.

The materiality of everything that is part of the daily life of the "developed" countries depends entirely on an energy and ecological irrational demand, historically built through the constant plunder of the nature and knowledge of the peoples of the South.

For the South this "petroleum" model perpetuates the unequal exchange, technological dependence, indebtedness,

impoverishment of peoples and dispossession of their territory and their sacred spaces. We have experienced, from the South, that this way of life that a minority of the planet enjoys, is maintained by the continued exploitation of nature and human labour in order to feed the flow of commodities and services that have historically caused the climatic changes, global warming and the colonial domination of the North over the South.

Synthesis: the underlying logic of agrofuels as gradual substitutes for oil is to support the global circulation of commodities and the environmentally unsustainable demand of energy and resources. This is done to supply and promote as universally ideal, the lifestyle of the North steeped in the historical logic of colonial exploitation of ecosystems and peoples of the South.

Our answer to the deceit of the so called positive energy balance of agrofuels is to point to the undeniable history of ecological and social devastation wrought bythe fossil fuel-dependent Green Revolution and concomitantly, industrial agriculture. This has caused the loss of 75 % of biodiversity throughout the last century, according to Food and Agriculture Organisation (FAO), besides having promoted the destruction of local agriculture and markets through the imposition of a global agro-food regime controlled by agribusiness. Indeed, the corporations that control the industrial chain boasts the highest concentration of power in the world.

We understand that the only way of overcoming the climatic and energy crises that threatens the continuity of the Life of the planet is the **overcoming capitalism.**

A transition is needed towards a post-petroleum society and a new sense of "development" built within a framework that is designed to overcome capitalism on ecological bases..

Energy issues and food production are the concrete and indivisible axes of resistance for the construction of another societal project and the building of new relations between peoples, co-existing as one with nature, - in order to subvert the colonial logic and subordination inherent in capitalism.

We agree that the political logic of the new global society in this path of transition - and the strategy of autonomy of the peoples over their territories - will have to be oriented by the central premise of guaranteeing Energy **Sovereignty** in harmony and complementing the radical defence of **Food Sovereignty**.

Therefore, the only consistent debate on agrofuels must be framed in a **new paradigm of de-development** that includes a radical structural transformation of the whole global economy and of our way of life and the dismantling **of the macro energy system** that sustains and guarantees the current global power relations.

These are axes of de-development:

- **De-urbanize**, to restitute populations in a human scale, supplying their needs in the local market with local energy and food sources.
- **De-globalize** trade and transport of goods, particularly agricultural resources and food, to attack the main demand on liquid fuels: the refrigerated trucks that transport the

meat and milk chain, the planes that transport flowers and tropical fruit, the gigantic cereal ships powered on diesel to take Soya to China and the EU, etc.; that generate a flagrant negative energy balance, and that sustains the illusory notion of "growth".

- De-technologize food production, replacing current agribusiness, Green Revolution and Genetically Engineered food production systems with those modelled on an agroecological model inherent in the food sovereignty proposal based on biodiversity and soil nutrition, and indigenous knowledge.
- **De-petrolize** economy; the best policy against global warming is the elimination of fossil fuels, leaving oil, gas and coal underground-where they belong. This must not be confused with fictional solutions as a "decarbonized economy", meaning to promote the carbon market, clean development mechanisms and the Joint Implementation that perpetuate the destructive petroleum model in the context of the logic of a free market.
- De-centralize the generation and distribution of energy, through technologies that will not reproduce dependency and will guarantee supply to local populations of their needs, that is distinct from privatisation of energy window dressed as "providing energy access to the poor". In other words, recuperate and defend the principle of energy as a service and not a business and commodity offered for sale in the marketplace. It is within this context that Energy Sovereignty must be guaranteed

e are attempting to open this debate in the heart of the "left wing" sectors in our different regions of the globe, restating in these radical terms this offer to overcome capitalism at this historical moment.

Because of the strategic role of the Latin-American region in the promotion and installation of the global model of Agro energy, and bearing in mind the Biofuel's International Conference, supported by the UN set to take place in Brazil in July 2008, we reaffirm our task of promoting the "Socialism of the 21st century"

In order for this vision to be a part of a political program of the post petroleum era, we, the undersigned commit ourselves to reframe our positions – without any concessions to capital – as imposed by the current energy and ecological crisis.

PARTICIPANTS IN THE WORKSHOP ON AGROFUELS, FOOD SOVEREIGNTY, ENERGY SOVEREIGNTY AND THE TRANSITION TOWARDS A POST-OIL SOCIETY

Ousmane Samakè, IRPAD/Afrique

Mauricio Sermeño. UNES El Salvador Angel Luis Brito. Universidad del Oriente. Cuba

Elena Pardo. CEPROSI. Perú Pablo Bertinat. Cono Sur Sustentable. Argentina.

Stella Semino. GRR. Argentina María Elena Rosas. RAPAL. Chile Ernesto Ladrón de Guevara. UNORCA.

Ivonne Yánez. Oilwatch International

Lidoro Hurtado. CANE Ecuador Rosa Bermúdez. Censat. Colombia Ana María Lozano. Justicia y Pas. Colombia Camila Moreno. Terra de Dereitos. Brasil

Raquel Núñez. WRM. Uruguay María Eugenia Jeira. Biodiversidad en América Latina. Argentina

Karen Pomier. FOBOMADE. Bolivia Alberto Villarreal. Food and Water Watch.

Karin Nanser. REDES Uruguay John Karumbidza. Timber Watch. South

Mariam Mayet. ACB. South Africa Nnimmo Bassey. ERA. Oilwatch Timothy Byakola. African Biodiversity Network Abetnego Tarigan. Sawit Watch. Indonesia Rudolf Buntzel. EED. Germany Shamila Ariffin. SAM. FoE Malaysia Lucía Ortiz. FoE Brasil Meter Segura. APACOBINM. Ecuador Benito Jaramillo. Red DIVINA. Ecuador Serapio Laje. Red DIVINA. Ecuador Kómulo Quimis. Red DIVINA. Ecuador Wilton Morán. Red DIVINA. Ecuador

Juan Pedro Nazareth. UASD-K. Ecuador Evison Arequipa. Fed. Jambi Huasi. Ecuador Pablo de la Torre. CANE. Ecuador Soledad Vogliano . CEPPAS. Argentina Elena Gálvez. Centro de Estudios Mayas.

Félix Peña. Red DIVINA. Ecuador

Omar Bonlla. UNAM. México Anuradha Mittal. Oakland Intitute.

Neth Dano. TWN. The Phillipnies Klaus Schenck. Rettet den Regenwald. Germany/Ecuador

Guadalupe Rodríguez. Rettet den Regenwald. Germany/Ecuador Elizabeth Bravo. RALLT. Ecuador Felipe Caujivoy. Federación Awa. Ecuador Gonzalo Márquez.. UNCISPAL Imbabura. Ecuador

Mónica Trujillo. RAPAL. Ecuador Marianeli Torres. C-CONDEM. Ecuador Alexandra Almeida. Acción Ecológica. Quito

Natalia Bonilla. Acción Ecológica. Quito. Ivonne Ramos. Acción Ecológica. Quito. Aurora Donoso. IETTM: Ecuador Carlos Mazabamba. CDES. Ecuador Javier Baltodano. COECO CEIBA Costa Rica Magali Rey Rosa. Colectivo Madre Selva. Guatemala.

Jorge Yeti. Nawe Woarani. Ecuador Luis Awa. Nawe Woarani. Ecuador Fernanda Vallejo. Heder. Ecuador Domingo Francés. CANE. Ecuador Patricio Izurieta. FCAE. Ecuador Olga Abad. EntrePueblos. España/Ecuador David Listar. DebthWatch. Cataluña Gemma Tarafa. DebthWatch. Cataluña Juliana Hazlewood. Universidad de Knetuki. USA

Michael Dorsey. Darmoth University. USA



Elizabeth Bravo · ebravo@rallt.org Red por una América Latina Libre de Trasngénicos

African Centre Biosafety · mariam@biosafetyafrica.net African Centre for Biosafety