

## **SPECIAL PANEL:**

### **Challenging the Green Economy – evidences from the EJOLT project**

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#### **Panel Abstract:**

Twenty years after the Earth Summit in Rio in 1992, humankind has failed to halt biodiversity loss while CO<sub>2</sub> concentration in the atmosphere increases 2 ppm per year. The environmental objectives introduced then in the international policy arena have not been achieved. In a seemingly desperate effort to bring the policy interest back to the sustainability paradigm, UN appeals directly to economic orthodoxy, putting the idea of the Green Economy as the centre of the Rio+20 events. Green economy is defined as one that *'results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities'*. Such vagueness invites clarification: *'Practically speaking, a green economy is one whose growth in income and employment is driven by public and private investments that reduce carbon emissions and pollution, enhance energy and resource efficiency, and prevent the loss of biodiversity and ecosystem services.'* (UNEP, 2011).

This definition is unambiguous in one aspect. It does not question income growth even in the wealthiest economies. No trace here of the teachings of the founders of ecological economics: Kenneth Boulding, Nicholas Georgescu-Roegen, Herman Daly. Instead, options for so-called green private and public investments, such as desalination, reforestation or waste-based carbon credits, are provided. Some of these investments affect the livelihoods of communities worldwide. The ensuing tensions give a boost to conflicts over resource extraction or waste disposal, which increase in number as the metabolism of the world economy also increases.

The EJOLT project (Environmental Justice Organizations, Liabilities and Trade, [www.ejolt.org](http://www.ejolt.org)) is an FP7 Science in Society project that runs from 2011 to 2014 (EC, 2010). EJOLT brings together a consortium of 23 academic and civil society organizations across a range of fields to promote collaboration and mutual learning among stakeholders who research or use a strong sustainability approach, particularly on aspects of Ecological Distribution. One main goal is to empower environmental justice organizations (EJOs), and the communities they support to defend or reclaim their rights.

This is done through a process of two-way knowledge transfer, encouraging participatory action research and the transfer of methodologies. Through them, EJOs and communities can monitor and describe the state of their environment, and document its degradation, learning from other experiences and from academic research how to argue in order to avoid the growth of environmental liabilities or ecological debts. A key aspect is to show the links between increased metabolism of the economy (in terms of energy and materials), and resource extraction and waste disposal conflicts. The empirical focus of the EJOLT project is set all along the 'commodity chains' (from extraction to waste disposal or recovery) in four thematic pillars: a) nuclear energy, b) oil and gas extraction conflicts and climate injustices, c) biomass and land conflicts, and d) mining and waste conflicts.

As an outcome of the process, the factsheets and reports produced with and for EJOs are envisioned as online training materials for use of a diverse set of stakeholders. This session will frame the evidences from the first reports from the thematic pillars within the debate of the Green Economy proposals.

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## **“Science and activism in uranium mining conflicts. Lessons from Africa and Brazil”**

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Communities in Namibia, Gabon and Niger have been living near uranium mines for more than three decades experiencing social, environment and health impacts. Although the connection between their health problems and the mines' operation became clear to them, the mining companies always denied actual connections. Knowledge has been produced and used by the companies alone, without including the communities' or the workers perceptions. Dissatisfaction has therefore been growing within local communities and mine workers. In Niger civil society organizations (CSOs) have been formed claiming better access to mines revenues but also wanting to understand the mining process risks and the impacts of radioactivity on their health. In Caetité, Brazil mining has been going on only for 10 years but the impacts on society are already being noticed by the workers and the communities living near them; workplace accidents, tailing dam spills, soil and water contamination. CSOs are also starting to arise in protest.

In addition to all the social and environmental problems related to the exploitation of any kind of mineral, an important hazard of uranium mines is radioactivity and its effects on human health, mainly through the exposure to doses of Low Level Radiation (LLR – under 100 milliSievert). The health impacts of LLR are not well known because they are difficult to measure and not enough studies have been carried out (Brenner, 2012), however the International Commission for Radiological Protection accepts there is no safe radiation dose and risk increases with exposure (Wrixon, 2008). The local population vulnerability is reinforced by the lack of clear information linking the mining and milling activities to the environmental contamination and its effects to human health. We are therefore confronting a situation with high uncertainty and where important issues such as health risks are at stake; this is the field of post-normal science. A different approach to assess radiation risks is needed involving an extended peer community (Funtowicz & Ravetz, 1994).

As part of this extended peer community CRIIRAD, an NGO specialized in radiation monitoring and training, got engaged in this process involving since 2003 local communities in participatory monitoring and educational programs. Independent analysis of radiation on soil, water and air are being carried out by its team to ascertain the present impact. FIOCRUZ in Brasil, an organisation specialized in environmental health, have been engaging with local communities contrasting the knowledge produced by the mine and helping local communities understand the mining process and its impacts. The communities use this new produced knowledge in activist activities to ask, for example, better safety procedures for the mine workers or the removal of radioactive contaminated material from public use. They are engaging in science-led activism. Local communities realize that in taking part in the knowledge production process they can understand the impacts better, appropriate the knowledge produced and use it for their own advantage.

This is the type of liaison promoted by the EU-funded project EJOLT (Environmental Justice Liabilities and Trade) that aims at promoting mutual learning between CSOs (from North and South) and academic research. With EJOLT funds, this process of bottom-up knowledge production is also being carried in Namibia and Caetité. The article describes the processes initiated in Namibia and Caetité as well as a summary of CRIIRAD's experiences in Niger and Gabon.

**Keywords:** uranium mining, Low Level Radiation, post-normal science, science-led activism, activist knowledge

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## “Clean Development Mechanism report on 8 African cases”

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Faced with increased GHG emissions, the world leaders have failed repeatedly to develop effective policies. The Clean Development Mechanism (CDM), defined by the Kyoto protocol in 1997, has been lauded as a win-win opportunity for countries in the global North and South. Supporters argue that it stimulates foreign direct investment in the global South, fosters sustainable development, reduces carbon emissions and gives countries in the global North some flexibility in meeting emission reduction targets.

However, the experiences of eight projects across the African continent—ranging from reforestation, fuel-switch, biofuel and landfill-to-gas projects, as well as projects aimed at curbing gas flaring--suggest that in reality, the CDM process is highly problematic. The report provides a sketch of the following cases:

- The Bisasar Road landfill-to-gas project in South Africa
- The SASOL gas pipeline from Mozambique to South Africa
- The Cimentos de Mocambique-Matola Gas Company fuel-switch project in Mozambique
- The Kwale-Okpai gas flaring project in Nigeria
- The Green Resources Idete Forest Project in Tanzania
- The Abu Qir project in Egypt
- The Onyx landfill project in Egypt
- The G4 Industries Tana Jatropa Project in Kenya

Based on our comparative research, it appears that CDM projects have not been successful. Rather they have been characterized by fraud, exclusion, the destruction of the natural environment, devastation of local livelihoods, and continued health and safety risks. Despite these risks, companies continue to earn revenues from credits sold, and countries in the Global North continue to receive credits. Nonetheless, local communities and environmental organizations have emerged to challenge the CDM process.

This report not only traces the negative impact of CDMs, but the conflicts, strategies and victories that have emerged in response to these projects. It concludes that the emissions markets were the wrong idea (a neoliberal strategy) in the wrong place (financial markets) at the wrong time (the 2000s era of repeated bubbles and bursts). By repackaging climate finance under the umbrella of 'aid', developed countries exploiting the 'atmospheric commons' have managed to delegitimise the issue of ecological debt.

**Keywords:** Clean Development Mechanism; fuel-switch; biofuel; reforestation; fertilizer; landfill-to-gas; gas flaring; Africa; resistance

## **“A global overview of industrial tree plantation conflicts”**

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“A global overview of Industrial Tree Plantations Conflicts” is a report for EJOLT that aims to identify, based on a number of selected case studies, the main characteristics/impacts of industrial tree plantations conflicts worldwide, with emphasis on plantations for pulp and paper, and focusing on the Global South, contributing to the understanding of structural change in land use and biomass systems caused by these plantations, as well as identifying dynamics and processes that happen during this change.

The report is based on the basic fact that “plantations are not forests”. The WRM has asked for a long time for FAO to redefine forests so as to exclude tree monocultures. The report includes a description of characteristics/impacts of new trends of industrial tree plantations that are increasingly expanding, such as biomass oil palm plantations for agrofuels.

Moreover, the report discusses alternatives to the present industrial tree plantations model, pointing out to the need of consumption reduction based on the figures on trends of paper consumption, the benefits of a different local development experience based on a case of a successful community struggle in which the community recovered its land and livelihoods from a plantation company, and the benefits of a different model of using trees, controlled by communities, as is the case of the traditional diverse use and processing of oil palm in Africa.

**Keywords:** industrial tree plantation, pulp and paper, oil palm, paper consumption

## **“Who has the power to determine what is green? Lessons from waste disposal conflicts in India”**

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Two case studies of waste disposal conflicts in India are analysed here to challenge the concept and practices of the so called ‘green economy’ looking at issues of valuation languages, scale and distribution. An alternative approach should look into the social metabolism (the energy and material flows underlying the economic process) and comprehensively account for the intragenerational and intergenerational socio-economic and environmental impacts at all scales.

a) Urban solid waste management in Delhi. - Delhi (India) is at the forefront of what appears to be the plan for urban solid waste management in developing countries across the world: first the privatization of the system, second the burning of waste to generate electricity (claimed to be clean and renewable). In the last two decades urbanization and economic growth have significantly modified the social metabolism of the city. Absolute quantity of solid waste has increased, and its composition has changed seeing more and more recyclable materials such as plastics, paper and metals. Authorities declare a waste crisis as landfills are full and there is no space for new ones. It is also said that Delhi will face energy shortage. So, why not burn waste to generate electricity?

The Okhla-Timarpur plant is the first one of a potential long series of incinerators in Delhi, India and elsewhere. The project includes a 600 tonnes/day bio-methanization plant and a 1300 tonnes/day refuse derived fuel (RDF) plant of 16 MW. At 0.3 Kw of installed power per capita (the Indian average is still 0.1 Kw, the European average is over 1 Kw), this plant would give electricity to about 50,000 inhabitants. Its financial viability depends on carbon credits from the Clean Development Mechanism (Kyoto Protocol). Authorities and the private company in charge of the plant declare Waste-to-Energy to

be a step forward in green economy as it would avoid groundwater pollution at landfill sites and avoid methane emissions from landfills and substituting fossil fuel to generate electricity. Environmentalists accused them of 'linguistic corruption' and have opposed the plant since the project proposal in 2005. Residents claim it will impact on their health and have mobilized to defend their right to a clean environment. Wastepickers, already threatened by privatization, struggle to defend their livelihood, as they fear that the plant will burn the waste they need to sell in order to feed their families. They have declared themselves to be 'cooling agents' as recycling avoids more CO<sub>2</sub> emissions than incineration or final disposal.

b) Shipbreaking in Alang-Sosiya (Gujarat).- More than 80% of international trade in goods by volume is carried by sea. The shipping industry constitutes a key element in the infrastructure of the world's social metabolism. Ocean-going ships are owned and used for their trade by developed countries but are often demolished, together with their toxic materials, in developing countries. Ship breaking is the process of dismantling an obsolete vessel's structure for scrapping or disposal. The Alang–Sosiya yard (India), one of the world largest shipbreaking yards, is particularly controversial due to its mismanagement of toxic waste. Ship owners and ship breakers obtain large profits dumping the environmental costs on workers, local farmers and fishers. However they claim it to be a green industry for the recycling disregardless of the local impacts to the environment and people's livelihood. This paper will describe the most recent trends and conflicts in this industry.

Ecological distribution conflicts

In both cases, Delhi and Alang-Sosiya, a valuation conflict emerged where different truth claims and values clashed. What is relevant here is that while business interests employ the same languages (economic, social and also environmental) as the other actors (environmental groups, farmers, fishers, local residents and wastepickers), they frame the issue very different and at very different scales, to come to very different evaluative conclusions. The problem is that other environmental risks, especially at the local scale (such as toxic emissions) are left by the wayside together with other concerns such as people's livelihood or resource constraints that require a decrease in the total consumption. So the relevant questions appear to be: who has the power to determine what is green? And green for whom?

**Keywords:** Social metabolism, waste, Clean Development Mechanisms, wastepickers, waste-to-energy, privatization, environmentalism of the poor, green economy, ecological unequal exchange, accumulation by contamination

## **“Large-scale gold mining: National natural resources treated as private assets with public environmental impacts”**

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Whenever world financial problems increase, the demand for gold and other precious metals usually increase. Trust in paper currencies often declines, that in tradable metals increases. National governments encourage gold development because they can show short-term “economic growth”, an increase in tax revenues, and often an increase in gold supplies allow countries that lack major internationally-exchangeable currencies flexibility when purchasing commodities such as oil, weapons, etc.

While gold may be considered a national natural resource, most governments allow the mining and mineral-processing sites to be operated as private endeavors. Access to the sites is totally controlled by the private companies, much as if they were private fiefdoms. Government representatives usually are required to receive prior company approval for any site visit. All technical data and information are supplied by the companies (i.e. the specific processes employed; the volumes and sources of water and processing chemicals used; the chemical content of the ores and wastes; the pre-operational locations of springs, their flow volumes and chemical content; the costs of exploration and operation, etc.). Prolonged times of economic difficulties are also when regulatory agencies have reduced budgets, fewer competent staff, and weaker political support for actual enforcement of most laws---especially social

and environmental laws. At such times, the public and political clamor is focused on promoting employment.

The long-term costs to the public are often neglected in economic evaluations. Most modern gold operations are conducted on a massive scale, involving the excavation of immense open pits, and use of tremendous quantities of water and toxic process chemicals. They inevitably lead to long-term increases in competition for water between the mine operations and the surrounding citizens who may be farmers, ranchers, city-dwellers, and all other portions of the biologic world. Long-term contamination of ground and surface waters also inevitably develop, which are often unforeseen. Reuse of these contaminated waters often requires the construction and operation of sophisticated water treatment plants, often forever. Frequently, local and regional governments lack adequate funds to operate such plants and remediate the sites, and the mining companies have departed the country. In addition, while most citizens must pay for their water, frequently mining companies are allowed to use water at no cost for the commodity itself. This aspect, and the inadequate costs allotted to water contamination and related environmental and social impacts, render most cost-benefit analyses meaningless.

At present, it is politically and environmentally-unacceptable to develop large-scale gold mines near highly-populated areas in most of the European Union, the United States and Canada. Hence, the incentive has been to go offshore to countries where regulatory enforcement is lax and labor and land costs are low. In such areas it is exceedingly difficult to gain a reliable, independent understanding of the real, long-term costs to the general public. Thus actual, long-term costs are often subsidized by the public, usually the future generations.

This paper attempts to illustrate these issues using concrete examples from recent activities in Bulgaria, Bolivia, Kyrgyzstan, and Colombia.

**Keywords:** large-scale gold mining, public impacts, public liabilities, case studies]