

**EJOLT – Environmental Justice Organisations, Liability and Trade**  
workshop on **Ecologically Unequal Exchange and Ecological Debt**

March 27-28, 2014

Human Ecology Division, Lund University, Sweden

Venue: Spoletorp auditorium, Spolegatan 1 R, Lund

<b>PROGRAM for March 27</b>	
<b>Time slot</b>	<b>Author(s), email address, and paper title (* = abstract submitted, see below)</b>
<b>9.00-9.15</b>	<b>Welcome and introduction</b>
<b>SESSION 1. CONCEPTUAL APPROACHES TO ENVIRONMENTAL JUSTICE, ECOLOGICALLY UNEQUAL EXCHANGE AND ECOLOGICAL DEBT</b>	
<b>9.15-9.45</b>	<b>Joan Martinez-Alier, Paul Mohai &amp; Alf Hornborg</b> <a href="mailto:joanmartineزالier@gmail.com">joanmartineزالier@gmail.com</a> ; <a href="mailto:pmohai@umich.edu">pmohai@umich.edu</a> ; <a href="mailto:alf.hornborg@hek.lu.se">alf.hornborg@hek.lu.se</a>  Environmental Justice, Ecologically Unequal Exchange, and Ecological Debt
<b>9.45-10.15</b>	<b>Andreas Mayer &amp; Willi Haas</b> <a href="mailto:andreas.mayer@aau.at">andreas.mayer@aau.at</a>  The Accumulation of Material Wealth in Different World Regions: A Further Map of Injustice*
<b>10.15-10.45 COFFEE</b>	
<b>10.45-11.15</b>	<b>Alf Hornborg</b> <a href="mailto:alf.hornborg@hek.lu.se">alf.hornborg@hek.lu.se</a>  Ecological Economics, Marxism, and Technological Progress: Some Explorations of the Conceptual Foundations of Theories of Ecologically Unequal Exchange*
<b>11.15-11.45</b>	<b>Rikard Warlenius</b> <a href="mailto:rikard.warlenius@hek.lu.se">rikard.warlenius@hek.lu.se</a>  Linking Ecological Debt and Ecologically Unequal Exchange: A Stock-Flow Perspective*
<b>11.45-12.15 DISCUSSION OF SESSION 1</b>	
<b>12.15-13.30 LUNCH at Restaurant Godset</b>	
<b>SESSION 2. METRICS AND METHODOLOGIES FOR IDENTIFYING ECOLOGICALLY UNEQUAL EXCHANGE AND ECOLOGICAL DEBT</b>	
<b>13.30-14.00</b>	<b>Andrew K. Jorgenson</b> <a href="mailto:andrew.jorgenson@soc.utah.edu">andrew.jorgenson@soc.utah.edu</a>  Environment, Development, and Ecologically Unequal Exchange: Exploring these Relationships and the Possibilities for a More Sustainable Future*

<b>14.00-14.30</b>	<b>Michael Curran et al.</b> <a href="mailto:curranm@ethz.ch">curranm@ethz.ch</a> Measuring Ecologically Unequal Exchange in the North-South Context: Quantifying and Compensating Biodiversity Loss Embedded in Agricultural Trade*
<b>14.30-15.00</b>	<b>Martin Oulu</b> <a href="mailto:martin.oulu@hek.lu.se">martin.oulu@hek.lu.se</a> The Unequal Exchange of Dutch Cheese and Kenyan Roses
<b>15.00-15.30</b>	<b>Christian Dorninger</b> <a href="mailto:christiandorninger@hotmail.com">christiandorninger@hotmail.com</a> Quantifying Ecologically Unequal Exchange from a Core-Periphery Perspective: The Effects of Structural Adjustment Programs on the Physical Trade Balances in Latin America
<b>15.30-16.00 COFFEE</b>	
<b>SESSION 3. ARGUMENTS FOR THE RECOGNITION OF ECOLOGICALLY UNEQUAL EXCHANGE AND ECOLOGICAL DEBT</b>	
<b>16.00-16.30</b>	<b>Ivonne Yanez</b> <a href="mailto:sudamerica@oilwatch.org">sudamerica@oilwatch.org</a> Trickster Illusions: Decoupling and Limits
<b>16.30-17.00</b>	<b>Sylvia Lorek &amp; Lewis Akenji</b> <a href="mailto:sylvia.lorek@seri.de">sylvia.lorek@seri.de</a> Between Consumer Blindness and Consumer Scapegoatism: The Consumers' Role in Environmental (In)justice*
<b>17.00-17.30</b>	<b>Jutta Kill</b> <a href="mailto:jutta@wrm.org.uy">jutta@wrm.org.uy</a> The Forest Stewardship Council and Ecologically Unequal Exchange
<b>17.30-18.00 DISCUSSION OF SESSION 2 AND 3</b>	
<b>18.00-18.30</b>	<b>Lucia Arguelles, Begum Ozkaynak, Leah Temper &amp; Daniela del Bene</b> <a href="mailto:leah.temper@gmail.com">leah.temper@gmail.com</a> Mapping Unequal Exchange: How the EJOLT Map Can be Used for Geographical and Statistical Political Ecology Analysis
<b>19.00- DINNER at Restaurant Godset</b>	

<b>PROGRAM for March 28</b>	
<b>SESSION 4. HISTORY OF ENVIRONMENTAL JUSTICE AND CASE STUDIES OF ECOLOGICALLY UNEQUAL EXCHANGE</b>	
<b>9.00-9.30</b>	<b>Paul Mohai</b> <a href="mailto:pmohai@umich.edu">pmohai@umich.edu</a> The History of Environmental Justice in the United States
<b>9.30-10.00</b>	<b>Alejandro Colsa Perez, Bernadette Grafton &amp; Katy Hintzen</b> <a href="mailto:acolsa@umich.edu">acolsa@umich.edu</a> A Review of the Evolving History of the Environmental Justice Movement in the U.S. through the Lens of Community Activism*
<b>10.00-10.30 COFFEE</b>	
<b>10.30-11.00</b>	<b>Pablo Samaniego, M.C. Vallejo &amp; Joan Martinez-Alier</b> <a href="mailto:joanmartinezalier@gmail.com">joanmartinezalier@gmail.com</a> Commercial Deficits and Physical Trade Deficits in South America*
<b>11.00-11.30</b>	<b>Godwin Ojo</b> <a href="mailto:gloryline2000@yahoo.co.uk">gloryline2000@yahoo.co.uk</a> 'Glocal' Citizens and Litigation for Environmental Justice: The Case of Shell in Nigeria*
<b>11.30-12.00</b>	<b>Khadija Sharife &amp; Patrick Bond</b> <a href="mailto:pbond@mail.ngo.za">pbond@mail.ngo.za</a> Payment for Ecosystem Services versus Ecological Reparations: The 'Green Economy,' Litigation and a Redistributive Eco-Debt Grant*
<b>12.00-13.00 LUNCH at Restaurant Godset</b>	
<b>SESSION 5. LEGAL, ETHICAL, AND MEDICAL ASPECTS OF ECOLOGICALLY UNEQUAL EXCHANGE AND ECOLOGICAL DEBT</b>	
<b>13.00-13.30</b>	<b>Jordi Jaria i Manzano et al.</b> <a href="mailto:jordi.jaria@urv.cat">jordi.jaria@urv.cat</a> Measuring Environmental Injustice: How Ecological Debt Defines a Radical Change in the International Law System*
<b>13.30-14.00</b>	<b>Mel Basil et al.</b> <a href="mailto:leah.temper@gmail.com">leah.temper@gmail.com</a> Rights of Nature or Responsibility to Nature? A Conversation with the Unistoten Resistance Camp*
<b>14.00-14.30 COFFEE</b>	
<b>14.30-15.00</b>	<b>Jair Stern</b> <a href="mailto:jairstern@gmx.net">jairstern@gmx.net</a> An Elephant in the Room of Biomedical Health Care: A Look at Some Mechanisms Contributing to, and Maintaining Medical Ignorance about, the Corporate/Legal-structural Incidence and Unequal Spread of Diseases*
<b>15.00-15.30 DISCUSSION OF SESSION 4 AND 5</b>	

<b>15.30-16.00 PRESENTATION AND DISCUSSION OF PUBLICATION PLANS</b>	
<b>16.00-17.30</b>	<b>EJOLT Steering Committee meeting</b>

# Abstracts in order of presentation

## THE ACCUMULATION OF MATERIAL WEALTH IN DIFFERENT WORLD REGIONS: A FURTHER MAP OF INJUSTICE

Andreas Mayer and Willi Haas

There is ample evidence that an unabated growth in material consumption will pass the Earth system’s source and sink capacities. In the face of limited resources, issues regarding the distribution of these resources increasingly gain importance. By conducting material flow analysis one is enabled to ask who is consuming the largest share of materials and what are the dynamics at present? But as with climate justice, it wouldn’t be just to neglect the historic dimension of material consumption. Therefore, at the core of our contribution we are interested in the analysis of material consumption for the period from WW II up to 2010. During this phase, the fossil fuel based industrialization triggered unprecedented growth in material consumption mainly in the wealthy world regions of Europe, Northern America and partly in the countries of the former Soviet Union. Guiding questions are on the cumulated material flows that were consumed and whether they stem from domestic sources or were imported from other world regions. With other words, we want to reveal to which degree material wealth (in terms of flows of mass) of world regions has been built up on domestic or on foreign resources. The results will be displayed on global country level maps displaying cumulated consumption and trade flows in absolute terms as well as per capita based on accumulated populations. For doing so we can rely on the material flow database of national economies for 177 countries that will be published in 2014 (Schaffartzik et al. 2014). Data are available for biomass, metals, fossil energy carriers and minerals. Recent data show that the highly industrialized economies have stabilized their metabolic rates (albeit on a very high level), and the profiles of the emerging economies such as China or Brazil are rapidly converging towards an industrial pattern of material use, providing their populations with increasing levels of material wealth. Hence, current policies target these dynamic economies, arguing that their adoption of an industrial pattern will boost global material consumption and therefore will be prone to surpass planetary boundaries of waste absorption. However, depicting the accumulated material wealth of nations shows a clearly distinctive picture. This contribution aims for showing the legacies of long historical accumulation of material goods within specific world regions or national economies, which is the share of already used resources by them. In doing so, it is not the rapidly growing giants who are the primary targets for dematerialization, but those economies that have already excessively consumed materials over the last decades.

## **ECOLOGICAL ECONOMICS, MARXISM, AND TECHNOLOGICAL PROGRESS: SOME EXPLORATIONS OF THE CONCEPTUAL FOUNDATIONS OF THEORIES OF ECOLOGICALLY UNEQUAL EXCHANGE**

Alf Hornborg

To understand 'ecologically unequal exchange,' we need to rethink the notion of 'technological progress,' because they are two sides of the same coin. Ever since the Industrial Revolution, the accumulation of technological infrastructure (physical capital) in core regions has been based on asymmetric flows of material resources in the world-system, and on the neoclassical economic ideology which would make such asymmetries invisible. The trust in technological progress, shared by neoclassical economics, most Marxists, and most ecological economists, is an indication of the conventional failure to conceptualize the pervasive logic of ecologically unequal exchange. When the originally Marxian notion of 'unequal exchange' (of embodied labor) was extended to include ecological resources, as in the work of H.T. Odum, it was generally founded on the analytically equivalent idea that ecological 'use values' (e.g., embodied energy) are underpaid in market exchange. This paper argues that such approaches to unequal exchange are misleading. Economic values should be kept analytically distinct from quantities of biophysical resources, whether energy, hectares of land, or hours of labor. The paper compares two divergent approaches in ecological economics (proposed by N. Georgescu-Roegen and H.T. Odum, respectively) with those of Physiocracy, Marxism, and neoclassical economics. It suggests that, among these different approaches, only that of Georgescu-Roegen integrates economics and physics in a clarifying way. A conclusion would be that environmental injustices and ecological debts are often generated by ecologically unequal exchange, but that such unequal exchange should be identified and discussed in terms of asymmetric flows of biophysical resources, rather than in terms of asymmetric flows of 'values'. Ecologically unequal exchange cannot be made equal by raising the price of resources, but it can be alleviated or even stopped. Ecological debt cannot be paid, but it can be prevented from increasing.

## **LINKING ECOLOGICAL DEBT AND ECOLOGICALLY UNEQUAL EXCHANGE: A STOCK-FLOW PERSPECTIVE**

Rikard Warlenius

The notions of *ecological debt* and *ecologically unequal exchange* have developed isolated from each other and under different circumstances, where the first is mainly an activist concept and the latter an academic. When brought together, which is still rare, naturally it has been done within activist-academic partnerships such as EJOLT. I will argue that the two concepts can be linked together analytically in a fashion that is quite simple and logical by using a stock-flow perspective. In short, a *stock* is a specific quantity of units existing at a specific point in time, while a *flow* is a change in the number of units over an interval of time. Stocks and flows are not immediately commensurable, but related by adding a time factor. Quite simply, if I have 10 dollars in my piggy bank, and add 1 dollar every month, the stock is measured in dollars and the flow in dollars per month. Another typical, and in this

context pertinent, example is the relation between a debt (stock) and the money flows that determines the debt: lending, interest, redemption, etc. Thus, the stock (debt) is the accumulated result at a specific time of the flows. Ecological debt, as conceptualized by both activists and academics, is mostly considered as the accumulated result of different kinds of flows of natural resources and waste, but these flows are seldom referred to as ecologically unequal exchange. (As far as I know, only Martinez-Alier (2002) has touched upon this relation when he defines ecological debt as a result of different ecological distribution conflicts, of which ecologically unequal exchange is mentioned as one.) Ecologically unequal exchange, on the other hand, is usually defined as different flows of resources and waste, but the accumulated results of the flows are never referred to as ecological debt. Thus, linking these two notions as a stock and flow relation, where ecological debt is the accumulated result of ecologically unequal exchange, makes immediate sense. Doing so might enhance the clarity and usefulness of both concepts – and perhaps also help bridging the contexts in which they have been born, i.e. between environmental justice activists and radical academics. However, this operation includes slight adjustments of how some use the concepts, and this needs to be done in a delicate way to avoid diminishing their analytical precision and usefulness. An attempt will be made in the paper.

## **ENVIRONMENT, DEVELOPMENT, AND ECOLOGICALLY UNEQUAL EXCHANGE: EXPLORING THESE RELATIONSHIPS AND THE POSSIBILITIES FOR A MORE SUSTAINABLE FUTURE**

Andrew K. Jorgenson

I engage foundational perspectives in environmental sociology to assess the extent to which the relationship between the environment and development changes through time. Ecological modernization theory posits that even though economic development harms the environment, the magnitude of the harmful link decreases over the course of development, leading to the environment decoupling from economic development. In contrast, treadmill of production theory argues that the strong relationship between environmental harms and economic development will remain constant or possibly increase through time, and this should hold for both developed and less-developed countries. Findings for statistical analyses of national-level anthropogenic carbon emissions provide modest support for treadmill of production theory. The effect of development on carbon emissions remains large and stable through time for a sample of developed nations, but increases from low to moderate levels through time for a sample of less-developed nations. I next discuss and empirically illustrate how the structure of global trade and production networks in ecologically unequal contexts partially shape these unsustainable environment and development relationships. Finally, I draw from other bodies of social theory, most notably world society theory, to better identify situations in which a decoupling between carbon emissions and economic development is more likely to occur. Tentative analyses suggest that nations more integrated in world society are more likely to experience a reduction in the environmental impacts of economic development through time. The results highlight the potential for future research that more effectively pinpoints the mechanisms that lead to such environmentally beneficial outcomes where the harmful effects of ecologically unequal exchange relationships might be reduced.

## **MEASURING ECOLOGICALLY UNEQUAL EXCHANGE IN THE NORTH-SOUTH CONTEXT: QUANTIFYING AND COMPENSATING BIODIVERSITY LOSS EMBEDDED IN AGRICULTURAL TRADE**

Michael Curran, Laura de Baan, Thomas Koellner, Carlo Rondinini, Piero Visconti, and Stefanie Hellweg

Habitat loss in developing countries, primarily driven by agricultural production for global markets, represents the most immediate threat to global biodiversity. Industrialized and transition economies consume the majority of global agricultural output, and thereby impose disproportionately large, unpaid environmental costs on producing nations in the form of ecosystem loss and degradation. Until now, the measurement of such impacts has been hampered by the unavailability, bias and low resolution of existing data on species and ecosystem distributions. In this study, we present a method to quantify land use impacts on biodiversity at a very high spatial resolution using distribution data from a recent Global Mammal Assessment. The method quantifies pixel-level biodiversity impacts in terms of reductions in threat and rarity-weighted species richness. To do this, contemporary patterns in biodiversity are compared with a “potential” natural baseline (i.e. in the absence of human land use). By integrating freely available information on land use, agricultural production and trade, we illustrate both area (impacts/ha) and crop (impact/kg) level assessments. Finally, a method to compensate impacts is presented based on the “unpaid costs of sustainable management of renewable resources” (Martinez-Alier 2002), expressed as a price premium on land or commodity transactions. The compensation methodology applies “robustly fair biodiversity offsets,” which achieve biodiversity neutrality by expressing uncertain and risky future biodiversity gains of compensation activities in discounted present terms. These are compared to certain present losses caused by development activities (in this case agricultural production). We illustrate the proposed framework with an example of key export crops in East Africa, and compensation through a hypothetical case study of improved conservation in Central Kenya. Finally, we discuss potential applications, including use in life cycle assessment, testing hypotheses of ecologically unequal exchange, voluntary compensation schemes based on consumer willingness to pay, and the prospect of an international biodiversity tax on heavily traded commodities.

## **BETWEEN CONSUMER BLINDNESS AND CONSUMER SCAPEGOATISM: CONSUMERS' ROLE FOR ENVIRONMENTAL (IN)JUSTICE**

Sylvia Lorek and Lewis Akenji

An important hope of EJOs to change harmful production patterns lies on (northern) consumer awareness and their ability to shift consumption patterns towards more ecological ends. So for them the question appears how to overcome ‘consumer blindness’. In fact one of the explicit aims of the EJOLT project is to help European and international consumers to become more aware of the impacts of their consumption choices through increasing consumers’ and decision makers’ access to information on the global social and environmental impacts of consumption. However useful better information is, the questions appear: How influential are consumers in the end? Isn’t the hope that changes in consumer

habits may change unjust systems a copy of – and thus enforces – the neoliberal argument of consumer sovereignty? The presentation reflects on both sides: the need to change consumption patterns to reduce environmental injustice and the limitations and pitfalls of making consumers the scapegoats of an unjust global economic system. An analytical tool to do so is the Attitudes-Facilitators-Infrastructure (AFI) framework (Akenji 2013).

## **A REVIEW OF THE EVOLVING HISTORY OF THE ENVIRONMENTAL JUSTICE MOVEMENT IN THE U.S. THROUGH THE LENS OF COMMUNITY ACTIVISM**

Alejandro Colsa, Bernadette Grafton, Katy Hintzen, Sara Orvis, Paul Mohai, and Rebecca Hardin

Using a combination of survey and ethnographic methods, as well as an extensive literature review, this article expands on the body of work about the environmental justice (EJ) movement in the United States, revealing dynamics of emerging Environmental Justice Organizations (or EJOs) through the lens of community activism. We argue that the organizing structures adopted by EJ activists in specific cases has evolved over time, both influencing and being influenced by the broader social movement for environmental justice. Beginning with informal community groups rooted in the Civil Rights movement of the 1950s and 1960s, EJ activists in a range of U.S. contexts have progressed through the last three decades of the twentieth century toward more formal, institutionalized EJOs. This article examines several distinct trajectories of such organizational changes, seeking to understand the socio-political contexts that prompt informal community groups to formalize as contemporary EJOs. We will also look at how innovative approaches to organizing in one community can set a precedent for other activists in the way they approach environmental conflicts. This historical review thus suggests both trends and variations within those trends. Because it is supplemented with a series of recent personal interviews with EJ scholars, activists, leaders, and other members of the EJ community, it will prove a useful tool for both activists and scholars in an era of increasing global collaboration among EJ institutions.

## **COMMERCIAL DEFICITS AND PHYSICAL TRADE DEFICITS IN SOUTH AMERICA**

Pablo Samaniego, M. C. Vallejo, and J. Martinez-Alier

After some years in which the terms of trade improved, some South American countries are now suffering from a new condition, with deficits in the balance of international trade (imports higher than exports, in dollars) while continuing to have persistent physical trade deficits (exports in tons much larger than imports in tons – we call this a physical “deficit” because it means that more materials are exported, depleting resources, than are imported). We give updated figures for at least three countries, Colombia, Ecuador and Peru, but trends are similar in many other countries in South America. So, to the persistent historical situation (which continued also in the 1990s and 2000s until today) of “structurally” negative terms of trade (one ton of imports at least twice, often three times

more expensive than a ton of exports), that was slightly alleviated in the last decade, is now added (again) a further deterioration of terms of trade. As commercial deficits lead to current account deficits, there is need for external financing. As external debts increase (again), there is a need for further exports of raw materials to pay for the debts, depleting resources, polluting the environment, and causing more and more socio-environmental conflicts.

### **'GLO-CAL' CITIZENS AND LITIGATION FOR ENVIRONMENTAL JUSTICE: THE CASE OF SHELL IN NIGERIA**

Godwin Uyi Ojo

The extractive industries' expansive drive to meet energy demand has resulted in escalating conflicts and violence at the sites of extraction. In Nigeria, oil companies' operations are ubiquitous and occurring in neighbourhoods, farmlands, and rivers. The impact of oil spills and gas flaring is contributing to climate change and ecological debt. Other impacts affect water quality, air pollution and rural livelihoods. Conflicts abound and locals, due to weak institutions for seeking redress, are helpless, sometimes resorting to self-help and violent actions resulting in company facility shut down, kidnapping of oil workers for ransom, and sabotage of oil facilities. This paper explores the political, legal and ethical dimensions in terms of risks to business and the link between valuation of nature and litigating for environmental justice to explore the inherent contradictions of whether to value nature or not. Drawing from multiple cases from Shell, it explores innovative ways in which civil society groups and communities are seeking environmental justice in what I have termed a "glo-cal citizens" and expansive rights approach in defense of the environment. The paper argues that the shifting trends in environmental litigation, if supported by trans-border jurisdiction policy, could bring industry to account for avoided externalities and any historical ecological debt. The paper suggests that valuation against forms of dispossession, environmental remediation and accounting for full ecological costs could further the quest for environmental justice in ways that might make the proposition to "Leave oil in the soil" a more viable option.

### **PAYMENT FOR ECOSYSTEM SERVICES VERSUS ECOLOGICAL REPARATIONS: THE 'GREEN ECONOMY,' LITIGATION AND A REDISTRIBUTIVE ECO-DEBT GRANT**

Khadija Sharife and Patrick Bond

Since the December 2011 United Nations Framework Convention on Climate Change Conference of the Parties 17 in Durban and the Rio+20 Summit on Sustainable Development, attention has turned to whether the 'Green Economy', the concept of 'natural capital' and 'Payment for Ecosystem Services' together facilitate the management of new environmentally-financialised markets whose aim is to price nature and its pollution, so as to achieve maximally efficient exploitation of resources (an example of which is carbon trading). Alternatively, if there are flaws in such markets, should society instead move towards retributive payments for 'ecological debt' based on both 'loss and damage'

accounting (introduced at the UNFCCC COP18 in Doha) and environmental justice, in order that the valuing of nature is limited to fines for damages and then prohibitions on further pollution. These two countervailing philosophies play out in high-profile projects and pilot social-policy schemes in southern Africa, in ways that will teach the world foundational concepts surrounding ecological reparations.

## **MEASURING ENVIRONMENTAL INJUSTICE: HOW ECOLOGICAL DEBT DEFINES A RADICAL CHANGE IN THE INTERNATIONAL LAW SYSTEM**

Jordi Jaria i Manzano, Antonio Cardesa-Salzmann, Antoni Pigrau, and Susana Borràs

The aim of this presentation is to show the main conclusions of EJOLT Report n. 11, *Legal perspectives on international debates about claims for Climate Debt / Ecological Debt*. This paper takes ecological debt as a measure of environmental injustice and uses this idea as a motor of change of the international law system. As in previous works of the CEDAT team on this subject, environmental justice is defined as a fair distribution of charges and benefits derived from using natural resources, in order to provide minimal conditions of welfare to all human beings, including future generations. Subsequently, ecological debt is used as a measure of this injustice. Therefore, ecological debt expresses an unfair and illegitimate distribution of benefits and burdens within the social metabolism, including ecologically unequal exchange and disproportionate occupation and damaging of common goods, such as the atmosphere. The idea of ecological debt points to financial debt as a means to plunder peripheral societies in the global South. This mirroring justifies the use of 'debt' as a term for pointing to environmental injustice. Therefore, ecological debt serves to underline the inequitable and unsustainable consequences of the social metabolism of the capitalist world-system. But unlike financial debt, ecological debt is based on the consumption of non-renewable resources, so its indefinite projection in time cannot be permitted, cannot be normalized. Such a fact asks for more than compensation, rather a pervasive change of global social metabolism, which includes a substantial reform of the international law system, which has hidden unequal exchange under a disguise of state sovereignty and equality. The current system of international relations is based on some ideas which promote a lack of transparency, control and accountability of power, through a pro-growth and pro-freedom language which (theoretically) compensates ordinary people, but (practically) pays benefits only to a few. Ecological debt, as a symptom of the pervasive injustice of the current balance of power, demands an equivalent pervasive response, uncovering and deconstructing real power behind the scenery of equally sovereign states. It claims a counter-hegemonic agenda based on rebuilding international law from a pluralist perspective (TWAIL) and enhancing and improving control of power (a constitutional approach to international law). In our opinion, global power structures responsible for ecological unequal exchange require a legal response, a constitution (constitutionalism has been defined as a 'mindset', a project of political and moral regeneration, according to which international lawyers resort to a vocabulary of institutional hierarchies and fundamental values in the application of law). Our point is that global patterns of ecologically unequal exchange will not be corrected by minor adaptations of existing international regimes. Nor will it come through the formal enactment of a given set of principles. Rather, what it takes is a profound reconceptualization of global governance in

cosmopolitan terms. With that, principles such as democracy, human rights, equality and solidarity, checks and balances, and the rule of law are thought to set up the legal foundation for the allocation of power in the international sphere. For this reason, ecological debt is not to be used only as a means of appropriate compensation, but as a conceptual definition of an unfair system of human relations, which has to be changed. Accordingly, ecological debt can be used as well to define the burdens to be assumed as costs of the change required in international relations, i.e. advancing in constitutionalisation of international law and giving appropriate protection to human beings in a paradigm of sustainability (not sustainable development) and equity.

## **RIGHTS OF NATURE OR RESPONSIBILITY TO NATURE? A CONVERSATION WITH THE UNISTOTEN RESISTANCE CAMP**

Mel Basil, Freda Huson, Leah Temper, and Dini Ze Toghestiy

This article draws on the theoretical politics and praxis of members of the Unistoten Resistance and Action Camp in northwestern British Columbia, Canada (of which three of the authors are members). The Wetsuweten clan has been reoccupying and establishing themselves on their ancestral lands since 2010 to stop up to 7 pipeline projects meant to carry fracked gas and tar sands oil from inner BC to the coast and eventually to Asia. States such as Ecuador and Bolivia have recently enshrined Rights to Nature in their constitutions, which draw from indigenous cosmovisions such as the concepts of Sumak Kawsay and Pachamama, but at the same time imposed a liberal rights framing onto them. However, the Wetsuweten tribe prefers to emphasize a responsibility and relationship-based approach to the defense of nature and the territory. Such an approach entails a different conceptualization of the concept of sovereignty, as well as a "post-statist" framework to post-extractivism. We review briefly some of these concepts (drawing on Escobar, Gudynas and Kneen) and demonstrate how they have been reanimated through living processes at the Unistoten Camp, for example through their reimagined Free Prior and Informed Consent protocol. Finally, we discuss implications of and limitations of the subjectivity of nature and rights-based discourses for colonized peoples struggling to defend the environment, suggesting that there is a need to move past a dualistic conception of global capital as the problem and the state as the source of solutions without analyzing how they are intertwined and complicit with another. We conclude with some thoughts on responsibility-based approaches for indigenous resistance struggles from the bottom up.

## **AN ELEPHANT IN THE ROOM OF BIOMEDICAL HEALTH CARE: A LOOK AT SOME MECHANISMS CONTRIBUTING TO – AND MAINTAINING MEDICAL IGNORANCE ABOUT – THE CORPORATE/LEGAL-STRUCTURE-RELATED INCIDENCE AND UNEQUAL SPREAD OF DISEASES**

Jair Stern

There is a large body of evidence documenting many patterns in which corporations are actively involved in guiding and framing health-related research and public awareness, as

well as intervention on diseases according to their own structural demands. Corporations, intertwined with public science, have amplified and produced prodigious efforts at advancing some forms of medical understanding, diagnosis and treatment. At the same time, they have posed a notable hindrance to the advancement of systematic considerations on how corporate structures as such may play an integral role in some forms of disease causation. In this paper, I want to trace some examples of corporate-structure-related patterns of disease causation. I argue that corporate behavior is structurally inclined towards unequal consequences regarding exposure to and protection against diseases. This outcome is due to segregating both the appropriation and destruction of material health-protective resources and of exposure to toxic waste. The processes involved (apart from some notable exceptions) typically escape medical conceptualization. I briefly consider methodological challenges for better addressing this neglected type of disease-related processes.