GRADUATE

CENTRE FOR INTERNATIONAL ENVIRONMENTAL STUDIES

# September 2017 NEWSLETTER

CENTRE FOR INTERNATIONAL ENVIRONMENTAL STUDIES GRADUATE INSTITUTE OF INTERNATIONAL AND DEVELOPMENT STUDIES Case postale 136, 1211 Genève 21 T +41 22 908 44 61 - cies@graduateinstitute.ch

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# Make mercury history along the gold supply chain

#### **Public Discussion**

Wednesday 27 September 2017, 13:00 - 14:45 Auditorium A1A, Maison de la Paix



Since the earliest time of gold mining, mercury was used to extract gold. This practice is still ongoing in more than 70 countries, where 10 to 15 million artisanal and small-scale gold miners use mercury to recover gold. It is the world's largest source of mercury pollution, emits toxic vapours and releases large quantities of mercury, harming the miners, their communities, and the environment.

The panel discussion organized by CIES and UN Environment will explore how each actor of the gold supply chain - many of which are represented in Switzerland – has a responsibility and a role to play towards mercury-free gold production and the sustainable development of the artisanal and smallscale gold mining sector.

Opening by Liliana ANDONOVA, CIES, Erik SOLHEIM, Executive Director (UN Environment).

Panel : Daniela COLAIACOVO, Goldlake Group, Wilfried HOERNER, Argor Heraeus, Laurent FAVRE, Favre & Fils, Laura GERRITSEN, Fairphone, Jean LAVILLE, Swiss Sustainable Finance, Marc HUFTY, CIES. Moderator: Nawal AÏT-HOCINE.

### **Policy Briefing**

### Can trade in wildlife ensure its survival?

#### CIES Policy Briefing Tuesday 3 October 2017, 12:30 - 13:45 Auditorium A2, Maison de la Paix

This event is organized in collaboration with the Greengrowth Knowledge Platform. There is no question that trade in plants and animals dates back as long as trade itself. Humans are dependent on nature for survival. But what about the survival

of the plants and animals on which we depend? We are in an unprecedented period of biodiversity loss, which some commentators refer to as the sixth great extinction. There are laws and institutions in place to ensure the sustainability of wildlife. But are they enough? What are the impacts of trade on wildlife? Can trade in wildlife be sustainable? Is it a means of ensuring its long-term survival or is it contributing to its loss? These are a few of the questions the panel will be examining.

Panel : Timothy Swanson, CIES, Sofie Flensborg, CITES Secretariat, Jon Hutton, Luc Hoffmann Institute, Alex Kasterine, International Trade Centre. Moderator : Anne Saab, CIES.



### **CIES Research**

### NRP 73 grant for Dr. Joëlle Noailly

The project of Dr. Joëlle Noailly was one of 25 NRP73 projects that received funding from the SNSF. The project, entitled **"Financing investments in clean technologies"** was jointly submitted with Prof. Gaétan de Rassenfosse, Chair of Management and Innovation, at the EPFL.

The overarching objective of the project is to investigate how society can steer financing towards cleantech investments. Greater understanding about the financing of cleantech is critical not only in light of the massive amount of investment needed but also because cleantech differs from other technologies on two important aspects.

First, clean technologies are largely dependent on public support as they suffer from a double externality: an environmental externality, which relates to the fact that firms do not bear the full costs of pollution, and a knowledge externality, which stems from the public good nature of knowledge. As a result, policy uncertainty, i.e. frequent changes in environmental and climate regulations, is particularly harmful to cleantech investments. Second, cleantech investors differ from traditional investors in other technologies: they are of more dispersed, diverse and small-scale nature than traditional investors and may be driven by different (e.g., altruistic) motives. Much of the dynamism in the sector appears to be driven by new types of investors, rather than the traditional ones (e.g. incumbent energy firms).

The research project is structured around two main goals. The first goal is to understand how uncertainty about the policy environment impacts cleantech investment. The research plan will address this first objective by building novel indicators of climate and environmental policy uncertainty and conducting economic analysis of how these indicators affect cleantech investments. The second goal is to understand how new tools and financing models (e.g., crowdfunding) can help attracting new investors into cleantech.

The research project involves a significant number of implementation partners - policy organisations, companies active in the cleantech sector and finan cial institutions - which will significantly contribute to the translation of the generated scientific knowledge into valuable know-how for the praxis and its dissemination. The results of the project will provide a rich understanding of the success factors of cleantech investments, which will lead to practical recommendations on how to shape better policies to move Switzerland towards a more "sustainable economy". The project will also provide a platform to initiate pragmatic and informed discussions among policymakers and financial institutions on the potential of new funding instruments (e.g., crowdfunding as one fintech opportunity). Such discussions will strengthen the cleantech sector and ultimately help attracting a critical mass of investors with a diversity of profiles.



### SNF grant for Professor Marc Hufty

In order for technological solutions not to turn into social and political problems, Marc Hufty's new research project, **"The Global Political Ecology of Lithium Commodity Chain"**, aims to understand the issues surrounding the use of lithium, a natural resource presented as an element of importance for the green economy. Interview with Marc Hufty, Professor and Programme Lead at the CIES.



#### Why this interest in lithium?

The shift towards a green economy implies a new energy paradigm, a transition from fossil-fuel dependency to a sustainable low-carbon economy. Part of this change is contingent upon batteries for balancing the intermittent electricity supply from renewable sources and for electric vehicles. Due to their ability to store large amounts of energy in lightweight compact form, lithium-based technologies are now at the cutting-edge of research and development in energy storage. The global demand for lithium is expected to multiply tenfold by 2050 and its price is increasing rapidly. Lithium has become one of the planet's most strategic commodities.

### What are the characteristics of the lithium market?

The lithium market has a peculiar configuration, with a very small number of firms producing the metal, and an equally small number of countries processing it in consumer goods such as portable consumer electronics (China, Japan and South Korea). And it offers specific challenges for recycling given the premises of a circular economy (that consider the entire cycle of a product). It is also a fast-changing market.

#### What problems have been identified to date?

From production to recycling, the lithium commodity chain encompasses environmental, technological, legal, social and policy challenges at the local, na tional and international levels. Unless these issues are fully assessed and understood, there are risks that a new reliance on lithium might contribute, not to a new "green economy", but to reinforcing mechanisms that produce the social and environmental problems marking the current "brown economy" (fossil-fuel dependent).

#### What is the purpose of your research?

In light of the problems just mentioned, our aim is to take stock of the lithium commodity chain from the perspectives of political ecology and governance, by producing a comprehensive, multi-level and interdisciplinary understanding of its challenges. What we have now is a very fragmentary view. There is very little research on the commodity chain, on the social and environmental aspects of its extraction and consumption, on water issues, and on a regional comparison of the situation in the ABC countries. Specifically, our purpose is to understand how governance processes and socio-environmental conditions at different levels are influenced by the global commodity chain of lithium, from ABC countries to Switzerland (as a high-end consumer country).

# **CIES Research**

### SNIS grant for Professor Liliana Andonova

The project, entitled "Effectiveness of Partnerships for Advancing the Sustainable Development Goals: Behavioural Pathways and Impacts" was jointly submitted with Professor Gilles Carbonnier.

Partnerships between public and non-state actors for the provision of collective goods have become important instruments for addressing core issues on the sustainable development agenda such as health, education, humanitarian issues, or clean energy.

The UN Sustainable Development Goals (SDGs) emphasize the role of partnerships in the implementation of sustainability. Yet, while the academic literature provides valuable insights on the rise of public-private partnerships (PPPs), we know considerably less about their variable effectiveness and impact. Do PPPs simply repackage existing practices with effect and accountability, or do they contribute new and additional instruments and development outcomes?

This project will draw on political science, economics, management studies and public policy to advance the study of partnerships effectiveness both theoretically and empirically with respect to the SDGs. The main research questions guiding the project are: How can we conceptualize and operationalize the effectiveness for PPPs? Through what mechanisms are PPPs effects likely to materialize? What are the sources and limitations of the effectiveness of PPPs for sustainability? How do PPPs interact with other forms of governance at the international and subnational level to influence results for the SDGs?

The project will contribute to scientific and practical progress by providing the first to our knowledge inter-disciplinary, integrated and comparative theoretical approach and data on the effectiveness of partnerships for sustainability. The methodology will leverage original datasets and cases of partnerships by project participants, e.g. data and cases on partnerships in the multilateral system ; data on PPPs which competed for the Roy Family Award managed by the Kennedy School of Government; data and cases from the business sector in collaboration with the UNIGE PPP Research Centre; data of partnerships for climate change, and data and cases from partner organizations – UNICEF and the WEF.



### **CIES Staff**

#### **Three PhD Thesis Defences**

- Giulia Valacchi, PhD Candidate in International Economics, will defend her PhD thesis on Monday September 25th on "Innovation and diffusion of new technologies in and out of the green sector".
- Suchita Srinivasan, PhD Candidate in International Economics, will defend her PhD thesis on Monday September 25th on "Barriers to the global diffusion of clean technologies and the impact of policies".
- **Ioana Tuta**, PhD Candidate in International Relations and Political Science, will defend her PhD thesis on Wednesday September 27th on "Created and lost in translation : the corporate management of human rights".

#### New CIES members

Jamie Fraser, PhD Candidate in International Economics, will join the CIES in November as a research assistant. She will work with Professor Andonova and Professor Carbonnier on a project financed by SNIS, "Effectiveness of Partnerships for Advancing the Sustainable Development Goals : Behavioural Pathways and Impacts".

Jonas Köppel, PhD Candidate in Anthropology and Sociology, will join the CIES in October as a research assistant. He will work with Professor Hufty on a project financed by the SNF, "The Global Political Ecology of Lithium Commodity Chain".

#### François Cohen appointed at Oxford.

Francois Cohen is leaving the Graduate Institute to work at the University of Oxford, as a postdoctoral researcher for the Institute for New Economic Thinking. Francois will be working on carbon sequestration in land, on a project funded by the Nature Conservancy. Francois joined the Graduate Institute in May 2016 and worked on the Sinergia project "Innovation, Diffusion and Green Growth". While at the Institute, he published two papers on the energy efficiency of durable goods at the European Economic Review and Energy Economics, and co-authored a working paper, with Giulia Valacchi, on the impact of energy prices on the location of steel plants.

He also contributed to the teaching program of the Center, including the course "Advanced Resource Economics" jointly developed with Joelle Noailly and Tim Swanson, which has led to many fruitful interactions with students at the Institute.

# Letter from alumni

Kathryn Chelminski, Manager, New Market Development, Solar PV Amaresco



After completing my PhD at IHEID, I joined Ameresco, the largest independent energy services company in the U.S., in May 2017. My experience at CIES at the nexus of international politics and economics of energy and environment was a truly rewarding experience that honed my professional and academic skills.

I gained experience developing interdisciplinary research on energy and climate change through collaborations with researchers from around the world inside academia and within international organizations. I am grateful for the professional and academic opportunities that CIES provided to collaborate and

# **CIES** events

### **CIES** Public events

- Wednesday, September 27th, from 13.00 to 14.45, "Make mercury history along the gold supply chain", with UN Environment.
- **Tuesday, October 3rd, from 12.30 to 13.45,** "Can trade in wildlife ensure its survival?", with the Green Growth Knowledge Platform.

### Lunch seminars series - a forum for interdisciplinary research on the environment

- Thursday 12 October 2017, 12:15 13:30, «The Work of Commodity Traders: Anthropological Perspectives on Supply Chain Logistics and Trade», Stefan Leins, Senior Researcher at the Department of Social Anthropology and Cultural Studies of the University of Zurich.
- Thursday 26 October 2017, 12:15 13:30, «A political ecology of plant invaders: biogeography, biopower, and biotropes», Christian Kull, Professor, University of Lausanne, Faculty of Geosciences and Environment.
- Thursday 16 November 2017, 12:15 13:30, «The Orontes river basin : in and post-conflict challenges», Ronald Jaubert, Professor, Development Studies, The Graduate institute, Geneva.
- Thursday 30 November 2017, 12:15 13:30, «Corporate social responsibility in the context of investment protection», Laurence Boisson de Chazournes, Professor and Director of the Department of Public International Law and International Organization, Faculty of Law, University of Geneva.
- Thursday 7 December 2017, 12:15 13:30, «Private environmental governance in China : limits and promise of transnational standards to promote sustainable commodities», Yixian Sun, PhD Candidate in Interna-

# **CIES** latest publications

### **CIES Research papers**

- "The impact of energy prices on product innovation : Evidence from the UK refrigerator market", Cohen F., Glachant M., Söderberg M., CIES research paper n°51.
- "Follow-the-leader? Measuring the internationalization of law", Larcom S., Panzone L., Swanson T., CIES research paper n°50.
- Weather and income: effect on household saving and well-being in South Africa", Ting H., Bozzola M., Swanson T., CIES research paper n°49.

develop research, conduct field research in Indonesia and share my findings with diverse audiences. The supervision and feedback I received while at CIES was invaluable and fostered my growth as a scholar.

Since my time at CIES, I was a Sustainability Science Fellow at the Harvard Kennedy School Belfer Center, as well as a visiting Doctoral Research Fellow at the University of Cambridge Energy Policy Research Group. I further developed my PhD research on the impacts of clean energy finance on geothermal development in Indonesia and the Philippines, and research on the politics of fossil fuel subsidy reform in Indonesia. In my current position, I have the opportunity to combine my energy policy and regulatory analysis background with business analysis and market development to help spur further development of the clean energy industry in the U.S. It has been an enriching experience to see from a business perspective the impacts that domestic energy policies can have in driving clean energy development.

tional Relations / Political Science, The Graduate Institute.

 Thursday 14 December 2017, 12:15 - 13:30, «Return to the French countryside : between last resort and land of possibilities», leva Snikersproge, PhD Candidate in ANSO, The Graduate Institute.

#### Resource and development economics seminars series

- Thursday 28 September 2017, 16:15 17:30, «Information Dividend of Democracy : Impact on Political Stability and Redistribution», Jérémy Lucchetti, Assistant Professor, Institute of Economics and Econometrics, Université de Genève.
- Thursday 5 October 2017, 16:15 17:30, «Not Your Average Job: Measuring Farm Labor in Tanzania», Joachim De Weerdt, Senior Lecturer at the University of Antwerp, Belgium.
- Thursday 12 October 2017, 16:15 17:30, «Subsidies for Technology Adoption: Experimental Evidence from Rural Cameroon», Erwin Bulte, Professor of Development Economics at Wageningen University, Netherlands.
- **Thursday 19 October 2017, 16:15 17:30**, «Time variant risk preferences in agriculture: Evidence from Italy», Martina Bozzola, Researcher, ETH Zurich, Agricultural Economics and Policy Group.
- Thursday 2 November 2017, 16:15 17:30, «Returns to farm child labor in Tanzania», Christelle Dumas, Professeur d'Economie du Développement et d'Histoire Economique, Université de Fribourg.
- Thursday 9 November 2017, 16:15 17:30, «Solar lights addressing energy poverty and energy sustainability: a double-dividend technology for poor areas?», Isabel Günther, Professor of Development Economics, Director of NADEL, ETH Zürich..

### **Books and articles**

- "Global population growth, technology and malthusian constraints : a quantitative growth theoretic perspective", Lanz B., Dietz S., Swanson T., *International Economic Review*, Volume 58, Issue 3, pp 973-1006, 2017.
- "Transnational Public-Private Partnerships as Learning Facilitators : Global Governance of Mercury", Sun Y., *Global Environmental politics*, Volume 17, issue 2, pp 21-44, 2017.
- "Consumer Myopia, Imperfect Competition and the Energy Efficiency Gap: Evidence from the UK Refrigerator Market", F. Cohen, M. Glachant, M. Söderberg, *European Economic Review*, Volume 93, pp 1-23, 2017.