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NEWSLETTER

CENTRE FOR INTERNATIONAL ENVIRONMENTAL STUDIES
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CIES Workshop on “Clean energy technologies to developing countries”

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While the developed world is trying to transition to a more carbon-neutral energy mix, developing countries are struggling to secure sufficient energy to meet basic human needs. The International Energy Agency estimates that: “Over 1.3 billion people are without access to electricity. More than 95% of these people are either in sub-Saharan African or developing Asia and 84% are in rural areas.”

In this context, the diffusion of low-cost clean energy technology from developed to developing countries is essential and remains a challenge. Interdisciplinary research carried at CIES by Prof Liliana Andonova (Political Sciences/IR) and Dr Joëlle Noailly (Economics), within a project completed in July 2016 and financed by the Swiss Network of International Studies, contributed to shed some light on the barriers and the role of governance in fostering the global diffusion of clean energy technologies.

The topic of clean energy technology diffusion was discussed on 26-27 May 2016 at the Graduate



Institute during a scientific workshop on “Climate policy innovation and the access to clean energy technology in developing countries” organized by the CIES with the support of the INOGOV COST Action and SNIS. The workshop was an occasion to convey 20 academic experts from various countries and from interdisciplinary backgrounds to share views and experience on clean technology diffusion to developing countries.

Incentivizing the Grand Challenges:

Generating Solution Concepts for Addressing Climate Change and other Global Problems

Public forum

Friday 11 November 2016, 9:45 - 16:30

Auditorium Ivan Pictet A, Maison de la Paix

Climate change and other global challenges will require the development of novel approaches, dedicated government action and new policies for research and innovation. This public forum will present the findings of a Working Group of national and international experts on these issues.

Speakers at the event : Keith MASKUS (University of Colorado), Jakob EDLER (Manchester Business School), Carsten FINK (WIPO), Steven STONE (UNEP), Margaret TAYLOR (University of Berkeley

California), Nick JOHNSTONE (OECD), Pierre MOHNEN (University of Maastricht), David MOWERY (University of Berkeley California), Reinhilde VEUGELERS (University of Leuven).



New research explores linkages between global population growth, living standards, and land use



How much further will the global population expand? Can all these extra mouths be fed? And what is the role in this story of economic growth? These fundamental questions are scrutinized in a study by Prof. Tim Swanson (CIES), Dr. Bruno Lanz (CIES), Prof. Simon Dietz (LSE), which is forthcoming in the *International Economic Review*. The authors take a novel perspective on the topic by formulating a model of economic growth in which global population, food production, agricultural land, technological progress, and per capita income are jointly determined. The core results suggest that global population can be expected to grow further over the course of the 21st century, reaching 12.4 billion in 2100, together with a doubling of GDP per capita and agricultural production. However, agricultural land area is expected to stabilize by 2050 around 10 percent higher than what is currently observed. While growth in these outcomes all decline over time, these results represent a “business-as-usual” view of the world.

New website on CIES' Sinergia project



greengrowth-sinergia.ch

This project is led by the CIES in cooperation with ETHZ, London School of Economics and Political Science and EPFL. The project aims to explore theoretical, empirical and policy issues related to innovation, diffusion and green growth. Over the 2014-2017 period, the project is financed by the SNSF through its Sinergia funding scheme. More information about the team and research results can be found on the website.

CIES research

Lessons from Indonesia's fuel subsidy bonfire

Kathryn Chelminski, CIES PhD candidate in Political Science/IR and currently visiting as Predoctoral Research Fellow, Kennedy School of Government, Harvard University, summarizes in a blog article published on ClimateHome her recent research insights on Indonesia's fuel subsidy reform.

Widely praised as a success when rolled out in 2014, Jakarta's cuts to domestic oil and gas stored up long term fiscal problems that are now emerging. Starting in 2014, Widodo began to cut fuel subsidies. The reforms were widely praised as a success, not least because, unlike past reforms that led to massive protests, they were accepted by the public. However, Indonesia had set itself up for future fiscal troubles. There are inconsistencies in how the reforms were presented, and what happened in reality. The fossil fuel subsidy reforms coincided with the crash of the global oil market, which some scholars argued was the best moment to introduce reforms, since price shocks would be low. But then the rupiah depreciated to levels not seen since the Asian financial crisis. Since the removal of subsidies was



passed by Parliament and signed into law in 2015, the 2016 budget did not include a budget line for gasoline subsidies, but it kept subsidies for 3 kg LPG tanks, diesel and renewable energy.

And instead of being removed completely, the cost of gasoline subsidies was transferred to Pertamina, the state-owned oil company, which now covers

the difference between the subsidized price set by the government and market price of fuel. The Indonesian government did not reimburse Pertamina for losses from price controls during

2015. If Pertamina is not reimbursed, it will go bankrupt. The situation will only become more precarious if oil prices continue to rise. Completing the reforms successfully will require two key elements: increased transparency and fiscal buffers to better manage volatility in the oil and currency exchange markets. Removal of price controls requires macroeconomic stability, which in turn requires fiscal adjustments for inflation through coordinated credit, fiscal and exchange rate policies.

Such measures, combined with increased investment and directed social assistance, such as the payments set up in Iran's subsidy reform, soften the impact of higher fuel prices and make reforms more socially acceptable.

Field research on transnational sustainability standards in China

Yixian Sun, research assistant of the Centre for International Environmental Studies (CIES) has conducted field research from July-August 2016 in China for his SNF project “Transnational Private Governance for the Environment in China”, under the supervision of Prof. Liliana Andonova.

The project aims to study the processes through which some private sustainability standards are diffused into China and examine the power relationships among different stakeholders in the relevant processes.

Based on his previous work in Europe and China, Yixian visited over these two months a wide range of stakeholders relevant to transnational sustainability standards, including representatives of environmental NGOs, officials of some government agencies and industry associations, managers of leading companies, certifiers, business consults and academics.

A preliminary analysis of his intensive interviews shows increasing market recognition of several

major standards from the Chinese business community, but also notes many uncertainties with respect to the Chinese government's regulation of foreign standards.

In this semester, Yixian will analyze more in-depth his data and prepare a paper on the supply chain of palm oil. He plans to go back to the field next spring to further expand his research, including conducting some surveys or experiments with Chinese consumers.



Meet with CIES



Francois Cohen joined the CIES in May as post-doctoral researcher on the Sinergia project. He holds a PhD in economics and finance from Mines ParisTech Graduate School and a master's degree in economics and public policy from the Political Studies Institute of Paris, Sciences Po. Before joining CIES, Francois worked as post-doctoral researcher at the Grantham Research Institute of the London School of Economics and as a research assistant and consultant for Bio Intelligence Service in Paris, an environmental consultancy member of the Deloitte Group. He has two main research topics: 1) energy efficiency as a means to mitigate climate change; and 2) the impacts of climate change.



Kritika Saxena works on the project « Environmental regulation and economic competitiveness: employment, firms' location and technology adoption ». She is a PhD candidate in Development Economics at the Graduate Institute in Geneva. She holds MA in International Economics from the Graduate Institute, MA in Development Economics from University of East Anglia and BA (Hons.) in economics from Delhi University. Before joining CIES she was working with World Intellectual Property Organization in Geneva where she contributed towards their flagship report 'Global Innovation Index 2016'. She has over five years of experience working with International Organizations like the World Bank and Jameel Poverty action Lab in India.

Her research interests cover broad areas of innovation, development and the environment, with a particular focus on role of public policies and finance in innovation and green growth.



Roxana Elena Manea will be working on the Sustainable Human Niche project financed by the MAVA Foundation. She has just joined the PhD Programme in Development Economics at the Graduate Institute of International and Development Studies. Roxana holds a Master's Degree in International Economics which was awarded by the same Institute. She has previously worked on matters related to climate change adaptation and marine conservation while collaborating with UNDP and Oak Foundation, respectively. Her research interests revolve around climate change adaptation and agriculture in sub-Saharan Africa.



Julia Lladós Vila has recently joined the CIES as a junior research fellow for this academic year. The purpose of her stay is to produce a scientific paper on International Environmental Law as a means for the implementation of human rights obligations in general; with a focus on the problems of food loss and waste (FLW), in particular. The work undertaken should finally offer an analysis of the effectiveness of the indirect recognition of the right to food through environmental regulations, in terms of its realization; and point out some general solutions for the prevention of

FLW (central element of analysis of her thesis) is a PhD candidate at the Autonomous University of Barcelona (UAB), and member of the UAB Centre on Human Rights Studies since 2013. She worked as research assistant at the UAB Jean Monnet Chair of European Constitutional Law and, since 2014, she also worked as external consultant for the firm European Institute of Law (IED). Her work has been consistently focused on human rights, and on their connection with environmental issues. In 2015, she was a guest researcher at the UN Food and Agriculture Organisation (FAO), within the Right to Food Team.



The SNIS Award 2016 has been attributed to Dr **Morgan Scoville-Simonds**, currently CIES Visiting Fellow, for his award-winning thesis, entitled: *Adaptation-as-development: "Socializing" and "depoliticizing" climate change adaptation, from the international to the local level.* The thesis, defended at the Graduate Institute, under the supervision of Professor Hufty, addresses the topic of climate change as an international policy imperative. Through a political ecology approach it proposes an analysis of policy and social discourses on why and how this adaptation is conceived as a problem. The jury, composed of experts in different disciplines, commented on Dr Scoville-Simonds work as "excellent, well-structured; the thesis tackles complex concepts with lightness and deep understanding, generating valuable insights for the social sciences, as well as enriching their methodologies".

Bruno Lanz appointed as Assistant Professor of Applied Economics at the University of Neuchâtel



Bruno Lanz has been appointed Assistant Professor of Applied Economics in the Faculty of Economics and Business at the University of Neuchâtel.

As of September 1st 2016, he will join the economics faculty there to teach on the master program in economic policy, and will have ample opportunities to continue his research on the design of public policies and regulation, notably in the domain of energy and natural resources.

The CIES thanks Bruno Lanz for the fruitful and highly productive collaboration over the last three years.

Bruno has been a research fellow within CIES and a lecturer with the Department of International Economics since April 2013. In his research work, he contributed to more than ten research papers, most of them placed in the CIES research paper series, and he was also a major contributor to the project "Sustainable human niche," whose flagship paper has recently been published in the *International Economic Review*.

Aside from that, he developed and won a SNF grant to study environmental policy and economic competitiveness, which was jointly submitted with Prof. Balwin and Prof. Swanson.

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

Letter from alumni

Martina Bozzola, Postdoctoral Research Fellow, Agricultural Economics and Policy Group, ETH Zurich.



Earlier this month, I joined the Agricultural Economics and Policy Group at ETH Zurich, after spending last academic year as a Max Weber Fellow at the European University Institute (EUI) in Florence.

I completed my PhD at IHEID in December 2014, with a thesis on "Climate Change, Adaptation and Household Response". My work within the center has been a very

stimulating experience in nurturing my passion and interest for climate change economics and agriculture in particular.

At the EUI, I worked within the Florence School of Regulation, Climate Group. This experience exposed me to several exciting academic and policy events, including the chance to interview Professor M. Weitzman, Harvard University,

and being involved in several events related to the 21st Conference of Parties (COP21) that took place in December in Paris. I could also extend my own research into the issue of climate change mitigation in agriculture, having mostly dealt with adaptation issues during my PhD studies.

Since completing my PhD, I have also been involved in several projects through the International Trade Center. My work dealt with managing capacity building activities for farmers seeking to adapt and mitigate climate change in key agri-food sectors in Kenya and Uganda, and leading a survey of about 200 farmers in Zimbabwe. I am looking forward to contributing to the work of the Agricultural Economics and Policy Group at ETH.

I feel very fortunate to continuing my work within a fantastic team whose research interest are perfectly aligned to my own!

I am equally fortunate to continue collaborating with former colleagues and friends at CIES. We are soon to bring to conclusion our work related to the EU FP7 FOODSECURE Project. The final conference "Policies that Matter" is taking place next month in Brussel and I will be there to discuss the exciting results of our research.

CIES events

Internal Workshop and Public Forum

- Thursday, November 10th, from 9.45 to 17.30

Developing a Report on Incentivizing the Grand Challenges, academic workshop gathering partners of the CIES' Sinergia project and invited scholars.

- Friday, November 11th, from 9.45 to 16.30

Incentivizing the Grand Challenges: Generating Solution Concepts for Addressing Climate Change and Other Global Problems, public forum for the presentation of project findings and exchanges with national and international experts.

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

- Friday, October 7th, from 12:15 to 13:30

The Determinants of Environmental Migrants' Conflict Perception, by Vally Koubi, CIS, ETH Zurich and Dept of Economics, University of Bern

- Thursday, November 17th, from 12:15 to 13:30

Forests Lost and Found, the Political Ecologies of Forest Trend in Latin America, by Susanna Hecht, Professor in International History, The Graduate Institute

To register, graduateinstitute.ch/cies/events



CIES latest publications

CIES Research papers

- "The light at the end of the tunnel : the impact of policy on the global diffusion of fluorescents lamps", Srinivasan S., CIES research paper n°45.
- "Durability as a measure of success: An analysis of fossil fuel subsidy reform in Indonesia", Chelminski K., CIES research paper n°44.
- "Economic growth and agricultural land conversion under uncertain productivity improvements in agriculture", Lanz B., Dietz S. and Swanson T., CIES research paper n°43.

Books and articles

- "Emissions trading in the presence of price-regulated polluting firms: How costly are free allowances?", B. Lanz, S. Rausch., *The Energy Journal*, 37(1), pp. 195-232, 2016.
- "Research funding : patience is a virtue", Noailly J., *Nature Energy*, News and Views, Vol. 1, April 2016.
- "Climate-Resilient Crops and International Climate Change Adaptation Law", Saab A., *Leiden Journal of International Law* 2(29), 2016.