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# 1. Summary overview of major accomplishments and developments



Established in 2010, the Centre for International Environmental Studies (CIES) is the Graduate Institute's focal point for research on environmental issues. The centre is dedicated to the better understanding of the social, legal, economic and political facets of global problems related to the environment, with an emphasis on the international dimension and the North-South relations. The centre addresses complex problems such as climate change, biodiversity, food security, energy, natural resources and development.

CIES's mission is to conduct high-level academic research to improve the quality of decision-making in public and private spheres. This goal is achieved by creating a platform for researchers to conduct interdisciplinary research on the environment, by providing training to Master and PhD students in specialized areas of research and by disseminating research results through outreach activities targeted to academic experts and policymakers.

### 1.1. Interdisciplinary and cross-centres collaborations



This September 2016, CIES was proud to welcome Prof. Susanna Hecht - recently appointed in the Department of International History at the Graduate Institute - in its team of core faculty members. A trained biologist, economist and soil scientist and long-time expert on Amazonia, Professor Hecht explores

the history, dynamics and socio-environmental effects of cultures, economies and land use.

Together with 3 new Assistant Professors hired in 2015 in the departments of International Law (A. Saab), Anthropology and Sociology of Development (S. Seshia Gavin) and IR/ Political Science (J. Hollway), the appointment of Prof. Susanna Hecht anchors environmental topics in all teaching disciplines at the Graduate Institute and reinforces CIES core position as a focal point of the Institute's interdisciplinary research on environmental issues. Research directions and programs will likely evolve in the years to come to reflect this new diversity of approaches and methods among CIES faculty members.In 2016,

CIES's interdisciplinary work continued to be reflected in the SNIS-project on Clean Energy Technology for Developing Countries, which involved research assistants from both economics and political science disciplines. The project was finalized by an academic workshop organized in May 2016 at the Villa Moynier at the Graduate Institute, which brought together 18 interdisciplinary scholars to discuss climate policy innovation and access to clean energy technology. Researchers from Europe, the United States, Nigeria and Hong-Kong responded to the call for papers initiated early 2016. Results from the research project were published as UNEP Working Papers as part of UNEP's Green Economy Initiative.CIES also initiated several cross-centres collaborations in 2016 - notably with the Centre for Finance and Development (CFD)

and the Centre for Trade and Economic Integration (CTEI) — in the form of joint events. These joint research seminars were the occasion for research assistants from each specific centre to meet each other and dialogue on cross-cutting issues of development, trade and environment. The collaboration with the CTEI led to the launch of a new CIES-CTEI Speaker Series, on top of ongoing collaboration in the "Environmental Regulation and Competitiveness" research project.

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CIES aims to provide an interdisciplinary perspective on international environmental problems.

### 1.2. Overview of research output

In 2016, CIES achieved some significant research outputs, with 16 articles published in academic journals and an equal amount accepted for publication to appear in 2017 — reflecting the fact that several research projects are now reaching their final phase.

Several projects under the Innovation, Sustainable Growth and Technological Change programme were for instance finalized in 2016 or will end in the first half of 2017.



Several specific outputs are worth highlighting:

- A special issue on "Innovation, Diffusion and Green Growth" co-edited by J. Noailly and T. Swanson (with M. Sarr and L. Bretschger) will appear early 2017 in the journal Environmental and Resource Economics as an outcome of the Sinergia project.
- Several important outputs under the Environmental Governance program are currently in press, including the book Entrepreneurs of Institutional Change. International Organizations and the Rise of Global Public-Private Partnerships. By L. Andonova to appear at the Cambridge University Press.
- Several articles have been accepted for publication in leading journals, among which the work by T. Swanson and B. Lanz on the MAVA project to appear in International Economic Review.

While CIES researchers have been very active in finalizing and publishing research activities in 2016, they were also involved in preparing for future work as 13 research proposals have been submitted in 2016. Although most of the proposals were unsuccessful

in a context of changing SNF regulations and exclusion of Switzerland from EU funding, the activity of CIES members is worth being highlighted, with many proposals touching upon new topics (e.g. health and climate change, lithium) and being interdisciplinary (economics, anthropology, history, law, management).



In 2016 the CIES also announced a new academic partnership with the Cambridge Centre for Environment, Energy and Natural Resource Governance.

Professor Jorge Vinuales, who holds appointments both at the Graduate Institute and at the University of Cambridge is overseeing the cooperation between the two institutions. This partnership aims to promote exchanges of PhD students, professors, and researchers and to carry out common research programmes and projects.

The partnership enables the exchange of publications and information and facilitates the co-organization of events such as conferences, lectures, symposia and short research courses and meetings.



# 1.3. Training for students and placement of PhD students

This year also marked some important development towards establishing a new specialization track on "Sustainability, Environment and Resources" for the Interdisciplinary Masters Programmes of the Graduate Institute.

CIES faculty members have been actively involved in organizing the track and the new programme.

As environmental issues are becoming more salient for international relations and are critical now in livelihood and for framing of

development programs at all scales, the track offers an opportunity to focus on the emerging questions of governance, environment, resources and sustainability/resilience.

The students will be able to choose between four clusters: 1) The Global Framework; 2) Climate Change, 3) Resources, Governance and Politics and 4) Agrarian Environments and Food Systems.

This specialization is an important contribution towards CIES's mission to train students towards conducting research projects on environmental topics and towards careers in the fields of environment and development.

CIES continued in 2016 to actively support the placement of PhD students. Kathryn Chelminski, PhD Candidate in IR/Political Science became a Visiting Doctoral Research Fellow at the University of Cambridge, Energy Policy Research Group and is currently working at Tufts Fletcher School. Giulia Valacchi, PhD Candidate in International Relations, will start as a post-doctoral researcher at WIPO in 2017. Marion Planque, Visiting Fellow, will join UNEP in 2017.



# 2. Staffing of the Centre

The centre is headed by an interdisciplinary team of full professors comprised of Tim Swanson (Economics), Liliana Andonova (International Relations / Political Science), Susanna Hecht (International History), and Marc Hufty (Development Studies).

Susanna Hecht has been appointed as of September 2016 as Professor in International History Department of the Graduate Institute, with a joint appointment with the UCLA Luskin School of Public Affairs. A trained biologist, economist and soil scientist and long-time expert on Amazonia, Professor Hecht explores the history, dynamics and socio-environmental effects of cultures, economies and land use. She received her PhD in Geography from the University of California, Berkeley.

In addition, faculty members from various departments also collaborate with CIES: Anne Saab (International Law), Shaila Seshia Gavin (ANSO), James Hollway (IR/Political Science), Marc Hufty (Development Studies), Bruno Lanz (Economics) and Joëlle Noailly (Economics). Dr. Joëlle Noailly also holds the function of Head of Research of CIES, coordinating the research programs and projects of the centre.

In May 2016, CIES welcomed **Dr. Francois Cohen** (PhD Mines Paris Tech) as a postdoctoral researcher. Francois 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, he worked as postdoctoral 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.

As of September 2016, **Dr. Bruno Lanz** left CIES to be appointed as Assistant Professor of Applied Economics in the Faculty of Economics and Business at the University of Neuchâtel. Bruno has been a research fellow within CIES since April 2013. He led the research program on Public Economics and the Environment and participated into the SNF project on the links between environmental policy and economic competitiveness.

Besides the team of 8 associated faculty members, CIES employed 2 post-doctoral researchers and 11 research assistants (PhD candidates) in 2016. Seven of these RAs were working on the maximum authorized time on research projects.

Two new research assistants started within CIES as of September 2016 on a part-time basis:

- Kritika Saxena (Economics)
- Roxana Elena Manea (Economics)

CIES had 3 visiting fellows in 2016:

- Morgan Scoville-Simonds (Development Studies)
- Marion Planque (Development Studies)
- Julia Llados Vila (International Law)

CIES Visiting Fellow, Morgan Scoville-Simonds received the SNIS Award 2016 for his 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 in 2015, under the supervision of Professor Hufty, addresses the topic of climate change as an international policy imperative.

# 3. Active, ongoing research projects

In 2016, CIES had four research programmes comprised of 12 projects. Funding for these projects came from diverse sources, including European (EC FP7) and Swiss public research funding organizations (SNF and SNIS), and private foundations.

For these projects, CIES partnered with a range of national and international academic institutions in Switzerland, elsewhere in Europe, and also other parts of the world, and also enjoyed the support of stakeholder organizations Five projects ended in 2016 and three received an extension to 2017.











# 3.1. Public Economics and the Environment Research Programme



Environmental degradation as byproduct of human activities implies that preserving or improving environmental quality can only be achieved by giving up other opportunities.

The aim of the research programme in Public Economics and Environment is to use the tools of economics to inform the design of environmental policy, striking a balance between public and private interests in the provision of environmental quality.

#### A Sustainable Human Niche?



This project analyses the sustainability of the continued expansion of the human niche due to the continued conversion of lands to food production. Global land use determines several outcomes jointly: aggregate food production; feasible human population; stability of the food production system; and availability of genetic resources. Together these outcomes determine the sustainability of the entire food production system, and consequently the capacity for the human niche to be supported. This project enables the examination of various pathways for land use — and demonstrates the joint outcomes along each pathway that result (food production, population, stability, genetic resources availability). In this way the issue of global land use is assessed within a framework very similar to that applied elsewhere by Stern (2006) in the analysis of climate change and growth pathways. We also simulate how aggregate outcomes vary across different assumptions concer-

ning discounting, hazard rates, and technological change. In this way it is possible to examine the sustainability of various alternative global land use pathways — given the impact of land use on growth, systemic stability and resultant human welfare.

Timothy Swanson, Prof. IHEID, Bruno Lanz, PhD, Research Associate, Pedro Guimaraes Naso, PhD Candidate, Economics and Research Assistant, Roxana Manea, PhD Candidate, Economics and Research Assistant

Funded by the MAVA Foundation, CHF 1 Million; Start: September 2012; End: June 2017

#### **Environmental regulation and economic competitiveness**



During the UN conference on climate change held in Durban in 2011, the European Union and some other developed countries, including Switzerland, have pledged to reduce their greenhouse gas emissions between 20% and 30% below the level of 1990. The economic cost linked to emission reductions could penalize countries planning a strong reduction and thus cause a rebalancing of international economic competitiveness. These economic impacts present a major obstacle to achieving a global agreement on climate. Through this project, we aim to better understand the impact of environmental policies on economic competitiveness. One of the case study looking at the USA will focus on the adoption of new technologies in the policy of tradable emissions quotas limiting SO2 emissions. The results of this project will provide new empirical perspectives on the economic implications of environmental policies, and they will allow us to make recommendations

for effective public policies both at the environmental and the economic levels.

Timothy Swanson, Prof. IHEID (co-applicant), Richard Baldwin, Prof. IHEID (co-applicant), Bruno Lanz, PhD, Research Associate, Suchita Srinivasan, PhD Candidate, International Economics, Kritika Saxena, PhD Candidate, International Economics Funded by the SNF, CHF 395 619; Start: July 2015; End: June 2018; Competitive process

### 3.2. Resources and Development Research Programme

Developing countries are crucial to the resolution of global problems, especially their choices regarding development. CIES undertakes research considering how environmental regulation and growth combine to define development paths.

Environmental degradation and competition over access to environmental resources can endanger human, state, and international security. CIES conducts research on themes of land use, food security and biodiversity in order to contribute to problem solving in developing countries.



#### FoodSecure An interdisciplinary research project to explore the future of global food and nutrition security



In 2011 CIES participated in an EU FP7 joint proposal with the International Food Policy Research Institute which considers the role of biodiversity in the issue of Global Food Security, and examines how institutions may be reformed to address matters of food security. The project started in March 2012. One of the biggest challenges facing society today is the widespread prevalence of hunger and food insecurity. Expanding consumption as well as volatility in global food prices over the past years has fuelled concerns about global food and nutrition security (FNS). Given that the development of societal and technological solutions requires time, long-term visions on global food and nutrition security and knowledge-based policies are required. The FoodSecure project aims to design effective and sustainable strategies for assessing and addressing the short- and long-term challenges of food and nutrition security. The project will provide a variety of analytical tools to

experiment, analyse, and coordinate short- and medium-term policies. In doing so, the research will inform decision-making by a range of stakeholders in the EU and developing countries on consistent, coherent, long-term strategies to improve global FNS. CIES researchers will work specifically in the following areas: The role of innovation, research and development; institutional change policies in food and nutrition security; institutions that support innovation in the food system; and genetically modified crops as instruments to improve food and nutrition security.

Timothy Swanson, Professor IHEID (co-applicant), Helena Ting, PhD Candidate, Research Assistant Funded by the European Commission (FP7), 400,000 CHF; Start: March 2012; End: February 2017; Competitive Process

### 3.3. Environmental Governance Research Programme

The research programme on Environmental Governance looks at the legal tools that can be used or generated to fulfill the challenge of implementation facing international environmental law.

The programme adopts an interdisciplinary perspective on the design, dynamics and impact of different institutional mechanisms. It explores legal foundations of, and models for, international energy governance.



### Socializing Markets: Business and Human Rights



The project "Socializing markets: business and human rights" is investigating the mechanisms through which companies in the extractive sector commit to and implement human rights policies, with a particular focus on the extractive companies with operations in Peru.

The adoption of the Guiding Principles on Business and Human Rights by the UN Human Rights Council in 2011 has triggered a learning process whereby a significant number of "enlightened" multinational companies have committed to integrate human rights in their managerial processes and corporate culture. Thus, the thesis attempts to trace how human rights norms travel from the international to the local levels — from the headquarters of companies to their subsidiaries operating in distinct national and local contexts - and across organizational realms — from the legal and political domain to the managerial and corporate environment.

Liliana Andonova, Prof. IHEID, PhD Candidate: Ioana Tuta, PhD Candidate, Research Assistant (main applicant) Financed by SNF, Doc.CH, CHF 126,146; Start: September 2014 to August 2016; Competitive Process

### Transnational private governance for the environment in China



Originating from advanced economies, many private governance programs are gradually introduced to developing countries where global production increasingly consolidates. However, very little research attempts to uncover whether transnational private governance is able to "trade up" environmental standards in these countries. This dissertation seeks to bridge this gap by examining factors which determine variation in China's uptake of transnational private governance for different environmental issues. Theoretically, China is a critical case because of its political institutions, thus the project also investigates whether the authoritarian regime only leaves very limited space for private governance in China as is often assumed. The project will develop a dataset on the private governance programs having been introduced in China, and test hypotheses on driving forces for Chinese firms' participation through statistical analyses and paired case studies. By exploring the causes of

the success or failure of private environmental governance in China, along with dynamic public-private interactions between private governance and state regulation there, the project will contribute to the scholarship on environmental governance and private authority, on the one hand, and on international relations and Chinese politics, on the other.

Liliana Andonova, Prof. IHEID, PhD Candidate: Yixian Sun, PhD Candidate, Research Assistant (main applicant) Financed by SNF, Doc.CH, CHF 203 544; Start: September 2015 to August 2018; Competitive Process

#### The Domestic Politics of Transnational Climate Governance

Prof. Andonova is working on this project in collaboration with Thomas Hale (Oxford) and Charles Roger (University of British Columbia). A joint paper titled "How do Domestic Politics Condition Participation in Transnational Climate Governance?" has been presented at multiple venues. Both authors are now working on final revisions before submission.

Started May 2013, ongoing ; Liliana Andonova, Prof. IHEID; Non-competitive process

#### Dynamics of Transcultural Management and Governance in Latin America



This project aims to put Latin America on the academic map in Switzerland and provide a coherent network to help young researchers establish themselves in the field. Thematically, the project links the concepts of management and governance. In a nutshell, while governance is about the processes that lead to decision-making, management takes decisions to implement policies or strategies effectively. In both cases, cross-cultural approaches are a requisite in the multi-ethnic Latin American contexts. The evident interest among junior scholars reflects the vibrancy of Latin America in domains such as environmental policies. The region's increasing importance in the global order makes it all the more indispensable to explore and understand it. Our ProDoc initiative aims to complement the academic programmes in St. Gallen, Bern and Geneva, which provide funds for research (4 IHEID students have benefited so far), general methodological guidance and encourage

broad, comparative perspectives for graduate students. This training module bundles academic competencies in Switzerland, promotes excellence, and fosters the contacts with experts outside the country.

Marc Hufty, Prof. IHEID, Partners: Yvette Sánchez, Prof. University of St. Gallen (main applicant), Aline. Helg, Prof. UNIGE, and Corinne A Pernet, Prof. University of St. Gallen

Financed by SNF, ProDoc, CHF 451'000 ; Start: November 2013; End: October 2016 ; Competitive Process

#### **Cultural Negotiations: Asymmetries in the TransArea**



The project aspires to shed light on contact situations, which always entail negotiating cultural affiliations of the self and of others. While the process of transculturation allows for preserving a good portion of one's cultural autonomy it does not take place in a power vacuum. Considering Latina America as a TransArea, the theses go beyond the nation-states but not without ignoring the importance of the notion of citizenship. The associated researchers will concentrate on the phenomena of diaspora, the transnational organization, and cultural exchanges within the plurinational states to flesh out the asymmetries in these settings. The phenomena considered include the interactions of indigenous and rural communities with state as well as non-state actors in environmental conflicts, in interpretations of new legal norms, and in transnational mobilizations, as well as the formation of new communities in urban and diasporic locales.

Marc Hufty, Prof. IHEID (co-applicant), prof. Y. Sánchez, UniSG (main applicant)

Partners: Corinne Pernet, UniSG; Aline Helg, History, UniGE; Stephan Rist, Geography, UniBE.

 $Start: \qquad \text{February 2013} - \text{October 2016} \ \ \text{Financed by SNF, ProDoc, CHF 535'548} \ . \ \text{Competitive Process}$ 

### 3.4. Innovation, Sustainable Growth

### and Technological Change Research Programme

The research programme on Environmental Governance looks at the legal tools that can be used or generated to fulfill the challenge of implementation facing international environmental law.

The programme adopts an interdisciplinary perspective on the design, dynamics and impact of different institutional mechanisms. It explores legal foundations of, and models for, international energy governance.



#### Innovation, Diffusion and Green Growth (Sinergia)



This project aims to explore theoretical, empirical and policy issues related to innovation, diffusion and green growth. The overarching objective of the project is to build a Swiss Network on the Economics of Green Growth, as a contribution to the Green Growth Knowledge Platform (GGKP).

Each research team will focus on one specific topic: 1) economic modeling of growth and diffusion (ETH); 2) analysis of growth and diffusion, with a focus on developed countries and innovation (LSE); 3) analysis of growth and diffusion, with a focus on transfers of technology to developing countries (IHEID); 4) policies for green growth (EPFL).

CIES has organized two workshops this year with all project members: a kick-off meeting in January, and a follow-up meeting in September.

Timothy Swanson, Prof. IHEID (main applicant), François Cohen, PhD IHEID, Research Associate, Giulia Valacchi, PhD Candidate, International Economics, Research Assistant. Partners: EPFL, ETH and LSE. Funded by SNF Sinergia Programme, CHF 1.5 Million. Start: January 2014; End September 2017. Competitive Process. Website: greengrowth-sinergia.ch

#### COSTASSESS: The costs to adopting technology restrictions in South Africa



This project assesses the costs for South Africa of restricting the use of low-cost and abundant coal technologies. In this context, a better understanding of the cost structure of the coal industry will help to clarify how state intervention can enable the diffusion of alternative clean technologies, and thereby move South Africa towards a green economy pathway.

The primary research objective is to determine the cost of restricting a particular technology and resource when the country imposing this restriction has heavily invested in the technology in question and is rich in the particular resource. South Africa represents an interesting and important context within which to pursue this question. South Africa is heavily-endowed with low-cost coal, and it has relied entirely upon this endowment for both its own rapidly growing energy requirements and as a major source of export earnings. While a restriction on the use of coal may be substantially mitigated

by means of diffusion of alternative technologies, the availability and scalability of these technologies in the South-African context will need to be assessed. In addition, there are residual costs to a country such as South Africa that is well-endowed with the resource subject to the restricted technology.

Timothy Swanson, Prof. IHEID (main applicant), Pedro Guimaraes Naso, PhD Candidate, International Economics, Research assistant Funded by SNF, Swiss South African Joint Research Programme, CHF 229,320 ; Start: January 2014; End: April 2017. Competitive Process

### Access to Clean Energy for the Green Economy in Developing Countries



This project aims to provide an in-depth investigation of the barriers to diffusion of low-cost clean energy technologies to developing countries as well as to the governance mechanisms that can help to unlock diffusion and improve clean energy access.

Anchored in the Graduate Institute's Centre for International Environmental Studies (CIES) and funded by the Swiss Network for International Studies (SNIS), this project involves interdisciplinary partners across academia, including the University of Bern, ETH Zurich, University of Geneva, Harvard University, as well as UNEP, which represents the prominent international organizational partner. The research project is co-coordinated by Liliana Andonova and Joëlle Noailly, Research Associate.

The aim of this research is to both identify the obstacles that hinder the access to clean technologies

in developing countries, but also to assess which procedures at the governance level may be applied in order to facilitate their diffusion. At the same time, the research also involves practical aspirations, which are to find best practices in order to reinforce the institutional capacity of developing countries to adopt clean technologies.

Liliana Andonova, Prof. IHEID (co-applicant), Joëlle Noailly, PhD, Lecturer IHEID (co-applicant), Suchita Srinivasan, PhD Candidate, International Economics, Research Assistant, Kathryn Chelminski, PhD Candidate, International Relations, Research Assistant Funded by SNIS, CHF 259,525; Start: February 2014; End: July 2016; Competitive Process

#### The Impact of Innovation on Sectoral Energy Intensity in Switzerland



This project aims to investigate how green innovation can contribute to improve the energy intensity of various sectors in Switzerland and other OECD countries.

The analysis links data on green patent stocks to energy intensity estimates per sector by applying a newly developed concordance table matching patents to their sectors of use.

The model estimates a Translog cost function to measure the impact of green innovation next to other factors such as input substitution or structural changes.

Joëlle Noailly, PhD, Lecturer IHEID (main applicant), Jules Wurlod, PhD Candidate, International Economics, Research Assistant

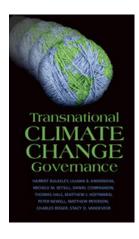
Funded by the Swiss Federal Office of Energy, CHF 90,600 ¦ Start: September 2014; End: May 2016 ¦ Competitive Process

### 4. Publications

CIES researchers contributed to 2 books and 17 articles in academic journals. Another 14 articles or books contribution have been accepted for publication in 2016 and will be published in 2017. Additionally, 21 working papers and policy-oriented publications (among which 9 working papers in the CIES Research Paper series) were authored or co-authored by CIES staff. Over the course of the year, CIES researchers presented their work at 42 conferences, workshops or seminars in Switzerland and abroad.



### 4.1. Books, Edited Volumes and contributed chapters

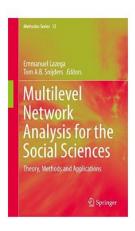


Edited Volume:

Authors: Andonova, Liliana B. and Thomas Hale, eds. 2016.

"The Comparative Politics of Transnational Climate Governance".

Guest editors of special issue of International Interactions, V 43, January 2017.



Book chapter:

Authors : J. Hollway, J. H Koskinen. 2016.

"Multilevel Bilateralism and Multilateralism: States' Bilateral and Multilateral Fisheries Treaties and Their Secretariats".

In: Multilevel Network Analysis for the Social Sciences, edited by Emmanuel Lazega and Tom A B Snijders, pp.315–32.

### 4.2. Articles published in scientifically refereed journals

Roger C., T. Hale, and L. B. Andonova 2017. «The Comparative Politics of Transnational Climate Governance.» *International Interactions*, 43:1, pp 1-25, lead article in special issue edited by Andonova and Hale.

**Chelminski, K.** (2016) The Political Economy of Energy Access and Sustainable Energy Transitions in Indonesia. *L'Europe en formation*, Spring 2016 (387): 146-165.

Díaz-Castro, L., Arredondo, A., Pelcastre-Villafuerte, B. E., & Hufty, M. (2016). Indicadores de gobernanza en políticas y programas de salud mental en México: una perspectiva de actores clave. *Gaceta Sanitaria*.

Hecht, S. B. (2016). Black Ranching Frontiers: African Cattle Herders of the Atlantic World, 1500–1900, written by Andrew Sluyter. *New West Indian Guide/Nieuwe West-Indische Gids*, 90(1-2), 179-181.

Hecht, S., Pezzoli, K., & Saatchi, S. (2016). Trees have Already been Invented: Carbon in Woodlands. *Collabra*, 2(1).

**Hecht, S. B.** (2016). Heather F. Roller. Amazonian Routes: Indigenous Mobility and Colonial Communities in Northern Brazil. *The American Historical Review*, 121(1), 298-299.

**Hufty, M.** (2016). La Gouvernance: Polysémique, Banale et Neutre? *Studia Universitatis Babes-Bolyai-Studia Europaea*, 61(1), 103-134.

Larsen, P. B., Hufty, M., Tran, C. T., & Gagnon, S. (2016). Commerce des espèces sauvages menacées: les paradoxes de l'État vietnamien. *Vertiq0* 16(1), mai 2016.

Oliveira, G., & Hecht, S. (2016). Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America. *The Journal of Peasant Studies*, 43(2), 251-285.

**Seshia Galvin, S.** 2016. 'Ecology of the Himalaya' Oxford Bibliographies. *New York: Oxford University Press*.



Saab, A., 2016. "Climate-Resilient Crops and International Climate Change Adaptation Law", *Leiden Journal of International Law* 2(29), June .

Lanz, B. and S. Rausch, 2016. «Emissions trading in the presence of price-regulated polluting firms: How costly are free allowances?», *The Energy Journal*, 37(1), pp. 195-232.

**Hollway, J.** and H Koskinen. 2016. "Multilevel Embeddedness: the Case of the Global Fisheries Governance Complex." *Social Networks* 44: 281–94.

Lanz, B., and Rutherford T. 2016 «GTAPINGAMS: Multiregional and small open economy models» Journal of Global Economic Analysis, 1(2), pp. 1-77

Lanz, B. and Provins, A. 2016 «The demand for tap water quality: Survey evidence on water hardness and aesthetic quality» *Water Resources and Economics*, 16, pp. 52-63

**Noailly, J.** 2016. "Research funding: patience is a virtue", *Nature Energy, News and Views*, Vol. 1, April.

**Scoville-Simonds, M.** 2016. The Governance of Climate Change Adaptation Finance—An Overview and Critique. *International Development Policy* 7.2,

### 4.3. Research Papers, Policy Papers and other Publications

The economics related CIES Research Papers are published on the CIES website as well as on RePec, the largest repository of research papers in economics online. This year, the CIES Research Paper "Energy, Trade, and Innovation: The Tragedy of the Locals", co-authored by Giulia Valacchi, PhD candidate in International Economics and Research Assistant at CIES, has been awarded the prize of the Best Paper at EconWorld 2016, an international conference in economics held in Barcelona on 1–3 February 2016.

#### Research papers

**Srinivasan S.**, Carattini S., "Adding fuel to fire? Social spillovers and spatial disparities in the adoption of LPG in India", CIES Research paper no. 48, 2016.

**Xu A.**, "Environmental Regulations and Competitiveness: Evidence based on Chinese firm data", CIES Research paper no. 47, 2016.

**Bozzola M., Swanson T., Ting H.,** "Transfer of Improved Varieties in Informal Markets and the Diffusion of Embedded Innovation: Experimentation with Genetic Resources in Uganda", CIES Research paper no. 46, 2016.

**Srinivasan S.**, "The light at the end of the tunnel: the impact of policy on the global diffusion of fluorescents lamps", CIES Research paper no. 45, 2016.

**Chelminski K.**, "Durability as a measure of success: An analysis of fossil fuel subsidy reform in Indonesia", CIES Research paper no.44, 2016.

Lanz B., Dietz S., Swanson T., "Economic growth and agricultural land copnversion under uncertain productivity improvements in agriculture", CIES Research paper no.43, 2016.

**Wurlod J.-D., Noailly J.,** "The impact of green innovation on energy intensity: an empirical analysis for 14 industrial sectors in OECD countries", CIES Research paper no.42, 2016.

Ravetti C., Theoduloz T., Valacchi G., "Energy, trade and innovation: the tragedy of the locals", CIES Research paper no.41, 2016.

**Bozzola M., Smale M., Di Falco S.**, "Climate, shocks, weather and maize intensification decisions in rural Kenya", CIES Research Paper no.40, 2016.

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### 5. Events

### 5.1. The Geneva Dialogues on Global Environmental Problems

The Geneva Dialogue lectures are a series of keynote speeches by leading academics bridging research and policy on a given theme. Attendees are made up in equal number from the Institute's faculty and student body and from international organizations, including international NGOs

The purpose of inviting these lecturers, in addition to presenting an interesting subject with insight from their specialty, has been also to forge connections with CIES members in their field of expertise.

#### CAROLYN FISCHER, April 15th 2016



Carolyn Fischer, senior research fellow at Resources for the Future, presented her research in a public lecture "Clean energy subsidies and the global trading system", (about 60 attendees). Co-organized in partnership with the Green Growth Knowledge Platform, with the participation of Ronald Steenblik (Senior Counsellor in the Natural Resource Policies Division, OECD) and Peter Wooders (Group Director, Energy, IISD).

Many governments provide direct subsidies to clean energy to advance green technology production and diffusion. However, such subsidies are beginning to raise suspicions within the framework of the World Trade Organization (WTO), which places restrictions on industrial policies that distort trade. This event will draw on recent interdisciplinary research to highlight new insights on the strategic use of clean energy subsidies with consideration to the international trade regime.

#### CHARLES MANN, November 14th 2016



Charles Mann, American journalist and author presented "State of the Species – Thinking of tomorrow's world of 10 billion" (about 80 attendees).

«Homo sapiens is an unusually successful species,» the late biologist Lynn Margulis liked to say, «but it is the fate of every successful species to wipe itself out.»

Why and how did humankind become «unusually successful»? And what, to an evolutionary biologist, does «success» mean, if self-destruction is part of the definition? Does that self-destruction include the rest of the biosphere? Is there any reason to believe we are somehow special--and can escape the preordained fate of other successful species? With more than seven billion of us crowding the planet, it's hard to imagine more vital questions.

### 5.2. Academic Conferences, Symposiums and Workshops

#### Academic conferences and Workshops organized by CIES

Workshop on Diffusion of Clean Energy Technology for Developing Countries May 26-27 2016, Villa Moynier, Graduate Institute, Geneva.

This workshop brought together 18 interdisciplinary scholars under the flag of the COST Action INOGOV (Innovations in Climate Governance) to discuss climate policy innovation and access to clean energy technology in particular in developing countries. Researchers from Europe, the United States, Nigeria and Hong Kong responded to the call for papers initiated early 2016. Papers were presented into five sessions on the themes of low-cost clean technologies, fossil-fuel subsidies, cross-country studies, investment and governance. Prof. Kathryn Hochstetler held a keynote session on "Green Industrial Policy and the Renewable Energy Transition: Can Industrial Policy be Green?"

Prof. Liliana Andonova Dr. Joelle Noailly

Attendees: 18 participants. Outcome: SNIS Video

# Grand Challenge Academic Experts Workshop, 10 November 2016, Villa Moynier, Graduate Institute, Geneva

The Sinergia Partners held a small commission of experts in this field, to discuss and develop a brief proposal assessing and evaluating the basic approaches to addressing the Grand Challenge of climate change: a) R&D taxes/subsidies; b) IPR, prizes and public contracting; c) Industry and new technology development.

Prof. Tim Swanson Dr. Joelle Noailly

Attendees: 18 participants

#### Academic conferences co-sponsored by CIES

# 2nd conference on Environmental Politics and Governance, June 16-19, 2016 Gerzensee, Switzerland

The conference aimed to showcase outstanding scholarship on Environmental Politics & Governance, provide a venue for scholars to present their research, strengthen their network, and shape future research across the social sciences via theoretically informed and methodologically rigorous empirical work. CIES co-organized and co-sponsored the 2016 edition of the Environmental Politics & Governance conference, held at the Gerzensee conference facility of the Swiss National Bank.

Liliana Andonova, The Graduate Institute, Geneva

Thomas Bernauer, ETH Zurich

Karin Ingold, EAWAG

Katharina Michaelowa, University of Zurich Policy and public events

Attendees: 40

# 18th Annual BIOECON Conference, September 14-16, 2016, Kings College, Cambridge, UK

The conference takes a broad interest in the area of resource management, development and conservation, including but not limited to: the role of biodiversity and ecosystem services in economic development, plant genetic resources and food security issues,

deforestation and development, fisheries and institutional adaptation, development and conservation, wildlife conservation, and international trade and regulation. The conference held sessions on economic development, growth and biodiversity conservation, as well as on institutions and institutional change pertaining to the management of living resources.

Attendees: 80

#### Other policy and public events organized by CIES

Kathryn Hochstetler, Professor of Political Science, University of Waterloo, Canada, "Green Industrial Policy and the Renewable Energy Transition: Can Industrial Policy be Green?" Keynote Lecture, 26 May 2016, Graduate Institute, Geneva

Green industrial policy aims to promote economic activity that is less harmful for the environment, such as the development of industries that solve environmental problems or produce green goods. Developing countries are especially likely to be concerned about potential contradictions between green and industry motivations, as they need good development outcomes to politically justify more costly green choices. This lecture presented the results of case studies of green industrial policy for wind and solar power in Brazil and South Africa to argue that there is no simple answer to the trade-offs between green and economic outcomes. Prof. Liliana Andonova

Dr. Joelle Noailly Attendees: 30

Grand Challenge Public Forum, 11 November 2016, in partnership with EPFL, ETH Zurich, the London School of Economics and the Green Growth Knowledge Platform, The Graduate Institute, Geneva

Solving Grand Challenges, such as climate change, global health or population growth, will require large-scale initiatives to foster technological innovation and diffusion. This public forum presented the findings of an expert working group on the mechanisms and policies required for developing potential solutions to some of the world's most challenging problems. The forum included an open discussion and debate among the participants.

Prof. Tim Swanson Dr. Joelle Noailly Attendees: 80

# Policy and public events co-sponsored by CIES and/or with the participation of CIES researchers

- "Looking back, looking forward: a decade in UNEP under Achim Steiner's leadership" Geneva, Switzerland, 26.04.2016. Liliana Andonova and Claude MARTIN, former Director General of WWF International, and looked back with Achim STEINER at his decade with UNEP addressing the global environmental agenda challenges. This event took place at the International Environment House II.
- Film and panel discussion of "India's Daughter", March 2016.
   Discussion moderated by Shaila Seshia Galvin, Graduate Institute

### 5.3. Seminars in Environmental and Resource Economics

The aim of the seminar series in Environmental and Resource Economics is to bring top scholars in Europe to CIES to give guest lectures on their recent research or research in progress. There were 8 lectures this year with approximately 20 attendees per lecture.

- F. Cohen, Post doctoral researcher at the LSE, "Temperature, mortality and income inequality: Evidence from Mexico", CIES ECON seminar, 21.03.2016.
- **C.** Fischer, Senior Fellow at Resources for the Future, "Strategic subsidies for green goods", CIES ECON seminar, 14.04.2016.
- R. Martin, Imperial College London, "The Causal Effect of the European Union Emissions Trading Scheme: Evidence from French Manufacturing Plants", 10.05.2016, co-organized with the Department of International Economics.
- J.-F. Maystadt, Senior Lecturer, Lancaster University Management School, "The Development Push of Refugees: Evidence from Tanzania", CIES ECON seminar, 29.09.2016.

- **J. Lucchetti**, Assistant Professor, University of Geneva, "Property rights and conflicts: theory and evidences from the Highland of Ethiopia", CIES ECON seminar, 06.10.2016.
- A. Kontoleon, Professor of Environmental Economics and Public Policy, University of Cambridge, "Unconditional transfers and tropical deforestation. Evidence from a randomized control trial in Sierra Leone", CIES ECON seminar, 13.10.2016.
- E. Auriol, Professor of Economics, Toulouse 1 Capitole University, "Religious co-option in autocracy: a theory inspired by history", CIES ECON seminar, 20.10.2016.
- P. Courtois, Researcher in Economics at INRA-LAMETA, Montpellier, "Managing biological invasions: how should priorities be set?", CIES ECON seminar, 27.10.2016.

### 5.4. CIES Lunch Seminars

The CIES lunch seminars series is a means for CIES researchers and external researchers to present and share research in progress. The series has also served as a way for CIES to promote itself within the Graduate Institute community. In 2016, 11 seminars were held, which were attended on average by 15-20 students and faculty. Compared to previous years, the lunch seminars attracted in 2016 a growing number of attendees.

- J. McCaughey, PhD Candidate in the Climate Policy Group, ETH Zürich, "Rebuilt risk: involuntary return, voluntary migration, and socioeconomic segregation in post-tsunami Aceh", presented 03.03.2016.
- A. Masako Goossens, PhD Candidate in International Law, "Persons displaced by natural disasters: Refugee rights? Human rights? Or no rights?", presented 10.03.2016.
- **M.** Hufty, Prof. Development Studies, IHEID, "A political ecology of lithium", presented 24.03.2016.
- L. Vandewalle, Assistant Professor, International Economics, "Saving by default: evidence from a field experiment in rural India", presented 07.04.2016. Co-organized with the Centre for Finance and Development.
- L. Kulamadayil, PhD Candidate in International Law, "The resource curse pathology from a legal perspective", presented 28.04.2016.
- I. Tuta, PhD Candidate in IR/Political Science, "Containing extractivism: the translocal resistance to gold mining. The cases of Yanacocha (Peru) and Rosia Montana (Romania)", presented 12.05.2016.

- **G.** Valacchi, PhD Candidate in International Economics, "Energy, trade and innovation: buy coal or kickstart green?", presented 19.05.2016.
- **G.** Floater, Visiting Fellow, Centre for Trade and Economic Integration, "Cities, the Global Economy and Climate: Policy Choices that will Shape our Future" presented 22.09.2016.
- V. Koubi, ETH Zurich and Dept of Economics, University of Bern, "The Determinants of Environmental Migrants' Conflict Perception", presented 07.10.2016.
- S. Hecht, Professor International History, Graduate Institute, "Forests Lost and Found- the political ecologies of forest trend in Latin America", presented 17.11.2016.
- E. Cima, PhD Candidate in International Law, "Promoting Renewables through Free Trade Agreements? An Assessment of the Relevant Provisions", presented 24.11.2016.



# 6. Professional Training

Prof. Jorge Vinuales is a member of the Steering Committee of Executive Education at the Graduate Institute, which provides the Executive Certificate in Environmental Governance.

Other faculty members (M. Hufty, A. Saab) regularly contribute to the Executive Education programme or to other specific training programmes, such as the Graduate Institute Summer Programme on the WTO International Trade and Development (A. Saab, J. Noailly).

# 7. Public Impact

CIES associated faculty members regularly intervene in the media and participate into commissions or boards.

In 2016, Marc Hufty contributed to the following articles in the media and local newspapers:

- RTS 18.04.2016 Destitution de la présidente brésilienne Dilma Rousseff
- La Liberté 01.09.2016 Thierry Jacolet / Instabilité assurée
- Swissinfo 01.09.2016 Fernando Hirschy, Claudinê Gonçalves, Alexander Thoele / «Situação que não é digna de uma democracia», escreve mídia suíça
- Genève internationale 09.12.2016 Au service de la planète Sauver la forêt.

In 2016, Liliana Andonova was invited to help establish and serve as a member of the Scientific Council meeting of the Geneva Science-Policy Platform, UNEP.

Joelle Noailly contributed, as in previous years, to the Innovation Committee of the Green Growth Knowledge Platform.

Finally, several of our research projects have particularly gained the attention of policymakers in 2016.

First, results from the SNIS project on Clean Energy Technologies for Developing Countries were published as UNEP Working Papers and were featured on the UNEP Green Economy website.

Second, results from the project on the Impact of Green Innovation on Swiss Sectoral Energy Intensity were highlighted by the Swiss Federal Office of Energy in promoting in the Energy Strategy for 2050 program, which is the core energy strategy of the Swiss government.

Third, the European Investment Bank in Luxembourg published in its Working Paper series some of CIES recent work on financing energy innovation.

# 8. Relationship with International Geneva

The CIES maintains important relationships with many organizations part of International Geneva.

In 2016, CIES worked together with UNEP and the Green Growth Knowledge Platform to co-organize academic and policy events. UNEP has been the main policy partner of the SNIS project on Clean Energy Technology for Developing Countries and thereby contributed to the discussion and dissemination of the results of the project through the May 2016 workshop and through publications of UNEP working papers.

CIES also actively supports the placement of interns in UNEP's Green Economy Initiative team at the International Environment. Our visiting fellow (Marion Planque) benefited this year from such a position.

Next to UNEP, CIES collaborated with the Green Growth Knowledge Platform (GGKP) on the Sinergia project on "Innovation, Diffusion and Green Growth" and the GGKP co-sponsored the Public Forum on Providing Solutions for the Grand Challenges in November 2016.

Besides this specific project, CIES and the GGKP maintained their collaborations through joint events, such as the Geneva Dialogue featuring Carolyn Fischer in April 2016.

Next to ongoing projects and events, CIES also reached out to the following international organizations and NGOs in Geneva and elsewhere as potential partners in collaborative research projects:

- UNDP
- OECD
- GGKP
- WM0
- WHO
- the Crop Diversity Fund
- WIPO.

