

Around the World

Annual report of the Oeko-Institut 2013



Thinking, researching, advising internationally

The Oeko-Institut works at international level in many projects – on behalf of international clients, in projects on the ground that call for environmental and sustainability solutions in other countries, and through knowledge transfer with experts abroad.

In our annual report for 2013 we highlight the impact of our scientists' research and consultancy work in the international arena. The map shows some of the places with which our sustainability work has been linked in the past five years.

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Our year 2013

Dear reader,

In 2013 Germany went to the polls. The federal government has formed a grand coalition and some of the states (Länder) also have new state parliaments. Elections are always breakpoints in the democratic process: protagonists change and opportunities arise for doing things differently.

It is clear that we need a fresh start in many fields.

... For example, in the transition to sustainable energy, where a start has been made but there are still many issues to be clarified. How are we to guarantee a modern electricity supply of the sort appropriate to an industrialised country? How should we promote renewable energy? How should the energy market as a whole be organised? What are the requirements for grid and storage system expansion? How do we involve the public in important aspects of the dialogue? And there is still no clear strategy or outlook in further areas related to the transition to sustainable energy systems, such as energy efficiency in many sectors and international climate change mitigation.

... For example, in connection with final storage of nuclear waste. Since a further eight nuclear power plants were shut down in Germany in 2011, the phaseout of nuclear energy is close to being achieved. Yet what do we do with the radioactive waste? While ideas on this point have been put forward, we now

need clear timetables and action plans so that the radioactive materials that arise can be permanently and safely segregated from the environment. Other countries, such as Switzerland and France, are ahead of us in showing how this certainly complex process of finding a repository can be managed. Here, as in other fields, it is vital to involve people living in the regions being considered.

... For example, in resource policy, which politicians still seem to treat as a low-priority issue even though it is of global strategic importance. The stipulation that resources should be extracted in environmentally sound ways, used sustainably in industrial processes and recovered comprehensively at their end of their useful life requires rules, technologies and actions that transcend the scope of national policies. In particular, new key technologies in the IT and telecommunications sectors are increasing the demand for resources – a development that must not be permitted to lead to new risks to the environment and human health.

Sustainable science can point the way.

All the issues mentioned above are ones on which the Oeko-Institut has worked in depth during the past year. In studies we have demonstrated that environmentally sound industrial and consumer policies are possible, that we can find ways of producing and using energy sustainably, that we can prevent



environmental risks and still have a good life. We are always seeking to lay the scientific groundwork for political decisions. We assemble the facts and provide the knowledge that enable sustainable solutions for businesses and consumers to be advanced and to be implemented by political and social decision-makers.

Frugality is not part of the core strategy that we propose. Nevertheless, we think it is worthwhile to consider whether less is not sometimes more – more in terms of quality of life, in terms of the shared use of services or products, in terms of new ideas for sustainability. A glance at the many initiatives based on the principle of "sharing is caring" shows that consumers are already prepared to share, to use things flexibly or to give things back – and to discover that this has benefits for their personal lives.

We have transmitted this knowledge in many conversations with representatives of politics, industry and civil society. Often, too, we find ourselves involved in discussions of the best path forwards. It is clear that particular strategies and pathways always have advantages and disadvantages from different points of view. But we are convinced that positive visions of the future are possible, including in connection with the big questions of transformation to a sustainable world. It goes without saying that we cannot work only in the national context when dealing with such matters. Electricity grids and electricity market mechanisms are being aligned throughout Europe, and many resource issues are decided outside the European Union. The experiences of other countries can be of use to us in many national issues. And lastly, the often complex international nature of material and finance flows today demonstrate that Germany is not an island. Through the realisation that Germany, an industrialised country, can and should lead the way in many issues relating to climate change mitigation, environmental performance and resource conservation, we can actively contribute to a sustainable world.

In this annual report we describe some of the projects we have worked on in 2013 in which these principles of internationality and sustainable transformation have been key. And we profile some of the members of staff who devote not only their scientific expertise but also their passion to producing studies and reports and advising our clients, while always remaining committed to the best solution. After all, it is always people who contribute the pieces that make up the whole.

I hope you enjoy reading our annual report and wish you a successful year in 2014.

Your

Michael Sailer Chief Executive Officer of the Oeko-Institut

How international is our research? Behind the scenes of science

Our work at the Oeko-Institut is independent, visionary and international - that is stated on our website and in our mandate. Independent, because we never let our research findings be pre-determined and because we have always been financed by a variety of clients. Visionary, because we believe that our work does help to change society - conserving resources and protecting the environment and climate are major tasks and we want to be involved. And international? With three office sites in Germany - Freiburg, Darmstadt und Berlin – and none in other countries? Really? It is true that a large proportion of our projects take place in Germany and address national issues: What is the most environmentally sound way of organising our waste disposal? What is the role of electromobility in climate change mitigation in Germany? What is the potential of combined heat and power generation and what changes in the law are needed if it is to be expanded?

Yet questions such as "What is the carbon footprint of major cultural events such as the Berlinale?", "How safe are European nuclear power plants?", "How should the European REACH regulation on chemicals be configured?" and "How equitable is our environmental legislation?" show that our work is (almost) always of international relevance. These days it is rarely possible to ignore the international side to sustainability research - regardless of whether we are calculating the emissions generated by airline passengers flying to Germany, comparing the guidelines and standards governing nuclear power plants, drawing up recommendations for European legislation or analysing statutory regimes with a view to finding the best solution for people and the environment. We address international linkages daily in our work, collaborate with experts in international networks, share our expertise and generate new knowledge in the global setting.

In many cases both our studies and our advice influence political decisions at European and international level. We regularly advise various European legislative bodies at various stages of decision-making. We use our expertise to help social groups in other countries take a policy stance, identify malpractice, call for changes that promote environmental conservation and put forward solutions. We share our knowledge in expert workshops on various issues - such as international climate change mitigation in the context of the climate negotiations, the risks associated with building or dismantling of nuclear power plants, ecological product development and the creation of standards such as the Blue Angel, the organisation of public participation processes and scientific support for these processes, learning processes in connection with the expansion and promotion of renewable energies and so on.

We also engage in close practical cooperation with private-sector partners in other countries, for example in order to design, test and evaluate suitable schemes for cooperation between developing and industrialised countries on recycling. Companies can rely on our professional expertise, our process experience and our independence in equal measure.

However, there is also what you might call a downside to our international work: some business trips take us to countries outside Europe. If these journeys cannot be avoided completely and if the destination cannot be reached by train, we offset the greenhouse gas emissions generated. We use a scientifically established process to identify the number of kilometres flown and then pay an offsetting amount that funds emissions reduction projects in other countries.



The Oeko-Institut in brief

Working together: Staff

In 2013 more than 140 members of staff at the three offices sites in Freiburg, Darmstadt and Berlin contributed to the success of the Oeko-Institut's projects and research work. More than 100 of these members of staff worked directly on scientific issues.

Scientists with backgrounds in the natural sciences, engineering, economics, law, social sciences and communications work together in interdisciplinary project teams. They utilise a wide range of scientific methods, including transdisciplinary tools and approaches.



Thinking and working successfully: Projects and turnover

In 2013 the Oeko-Institut worked on almost 400 projects with a turnover of 12.3 million euros*. Among its most important clients are ministries at federal and state level, companies and the European Union. The institute also works for non-governmental organisations and environmental associations.

Turnover development in million euros, 2000 - 2013*



Moving forwards: Professional development

Being successful as a pioneering thinker and facilitator requires not only technical expertise but also a wide range and methodological competences and communication skills. We therefore offer our staff opportunities for professional development appropriate to their knowledge and needs. In 2013 we set up a special internal training programme, involving courses for different job profiles specifically tailored to the Oeko-Institut's requirements. For example, there are courses in project management, media

skills, conflict management and communication skills. All the training courses will be run for the first time in 2014; after the pilot phase they are due to be continued and expanded.

Alongside the training events and existing methods of induction and shared learning, in 2013 we launched an internal project to identify other methods of knowledge transmission and knowledge transfer that we could use.

Round the world Selected projects from 2013

A scientist assists a community initiative in Malaysia. A Chinese research team comes to Berlin to exchange knowledge. And a climate expert negotiates at the UN Climate Conference in Warsaw, which is attended by almost 200 countries. These three projects encapsulate the international orientation of the Oeko-Institut's work. Irrespective of whether their research focuses on Brazil, South Africa or the Philippines, our scientists' ideas and input transcend the boundaries of countries and continents.

On the following pages we should like to describe to you some of the projects on which the Oeko-Institut worked in 2013. They include two projects from the Environmental Law and Governance Division: the "CSR IMPACT" analysis, which explored the role of voluntary corporate social responsibility (CSR) measures in achieving the EU's sustainability targets, and the Globalands project, which was concerned with more sustainable international land use. How companies and policy-makers should handle the issue of conflict minerals from countries such as the Democratic Republic of the Congo was addressed by scientists from the Institute's Sustainable Products & Material Flows Division. This division is also responsible for a project through which Thailand and the ASEAN region is benefiting from the Oeko-Institut's experience of sustainability standards for products and services. Greater involvement of the public in selecting repository sites for nuclear waste in East European countries is the issue being tackled by the IPPA project in the Nuclear Engineering & Facility Safety Division. This division has also been investigating a facility for refining rare earths in eastern Malaysia that poses serious risks to humans and the environment. For many years experts from the Energy & Climate Protection Division and other divisions have been taking part in the international climate negotiations. In 2013 the Oeko-Institut was again part of the German delegation, both participating in the negotiations and exchanging information and views with colleagues from all over the world. By contrast, scientists from the Infrastructure & Enterprises Division considered how greenhouse gas emissions in the Chinese transport sector could be reduced.

Of course the Oeko-Institut also worked on many projects based entirely in Germany. We should like to draw your attention to two of them: the Energy & Climate Protection Division examined the surcharge system under the German Renewable Energy Act, while the Environmental Law & Governance Division explored the subject of climate change mitigation at Frankfurt am Main airport.

In 2013 the Oeko-Institut's 100 scientists worked on and supported more than 400 projects: independently, with vision and, not least, internationally.

Responsibility and transparency Managing conflict minerals

European industry needs a wide range of minerals. Some of these commodities, including gold, tantalum, tungsten and tin, are mined in conflict regions such as the Democratic Republic of the Congo and have become known as conflict minerals. How should companies and policymakers handle the issues that arise in connection with these minerals? The ores may be mined without government regulation in countries in which conflict is rife, and proceeds from the sale of minerals may directly or indirectly be financing conflict. Conflict minerals are the focus of a study conducted by the Oeko-Institut for the Federation of German Industries (BDI). As part of the project, scientists drew up options for action in connection with the management of conflict minerals.

For the BDI, the main aim of the analysis was to make a constructive contribution to the debate on a European initiative on conflict minerals. To facilitate this, Oeko-Institut experts interviewed representatives of key stakeholders such as civil society organisations in the Congo, the World Bank and the German Federal Institute for Geosciences and Natural Resources (BGR); it also conducted a detailed evaluation of the USA's Dodd-Frank Act of 2010 and its impacts. The Act requires companies listed on the US stock exchange to disclose the origin of certain minerals. Other approaches to the issue were also explored. In addition, the experts drew up recommendations for European policymakers and businesses on the management of conflict minerals.

There is no doubt that greater transparency in the management of conflict minerals is desirable. However, the Oeko-Institut emphasises that comprehensive reporting obligations for the industry do not automatically improve conditions for people in the conflict regions. They may indeed lead to a wholesale boycott, which creates major problems for legal mining in the area concerned. It is important to ensure that legal and responsible mining is systematically promoted. On the basis of the study, the Oeko-Institut and the BDI now want to develop solutions jointly with the EU Commission to curb conflict financing in the Democratic Republic of the Congo. Another important aim is to improve the situation for the local population.

Project profile

Project title: Conflict minerals – An evaluation of the Dodd-Frank Act and other resource-related measures Contact: Andreas Manhart, a.manhart@oeko.de Institute Division: Sustainable Products & Material Flows Client: Federation of German Industries (BDI) Timescale: 04/2013 - 09/2013 Further information: http://bit.ly/1jHEgSZ

Andreas Manhart

Andreas Manhart's research focuses on products, recycling and sustainable resource management, exploring issues such as social and environmental standards in global value chains. He is a geographer who has worked in the Oeko-Institut's Sustainable Products & Material Flows Division since 2005.

"Greater transparency in the resource sector is important in order to cut off sources of funding for armed groups. However, it should not be forgotten that in the eastern Congo mining – alongside farming – often provides the only jobs for local people. A wholesale boycott of minerals from the region is therefore not a solution. It is important that legal and responsible mining is systematically promoted."

The Renewable Energy Sources Act (EEG) comes under fire What are the true costs of renewable energies?

The increase in the renewable energy surcharge is an ongoing topic in public debate in Germany. Many people believe that the surcharge arising from the German Renewable Energy Sources Act (EEG) and the associated promotion of electricity from renewable energies are to blame for rising power prices. In 2013, Oeko-Institut researchers were involved in several projects which focused on the surcharge. They predicted trends, analysed its composition and developed software to calculate the surcharge.

In 2014, there was, once again, a substantial increase in the renewable energy surcharge compared to the previous year. This had been predicted by the Oeko-Institut in a report for Greenpeace Germany back in summer 2013. The main reason for this development, according to the study, is the huge fall in the wholesale market price on the electricity exchange. This is because the surcharge provides the difference between the wholesale market price on the electricity exchange and the (higher) fixed remuneration rates for electricity from renewable energies. According to another study, conducted by the Oeko-Institut for Agora Energiewende, 0.36 ct/kWh (= 37%) of the increase in the surcharge in 2014 can be attributed to price falls

on the electricity exchange. However, the exemptions for major consumers also play a significant role: industry exemptions account for a total of 0.14 ct/kWh (= 15%) of the 2014 increase. Less than half the increase, i.e. 0.44 ct/kWh (= 46%) results from the expansion of renewable energies.

> Together with Agora Energiewende, the Oeko-Institut has developed a renewable energy surcharge calculator (EEG calculator), which is

available free of charge on the Internet. The software allows the surcharge to be calculated for the years up to 2017. Previously, calculating the surcharge required more than 80 factors to be considered and various assumptions to

be made. But now, with just a few clicks of the mouse, anyone interested can work out the future surcharge themselves with the easy-to-use "decision-maker" mode with pre-defined scenarios or the more complex "expert" mode that allows them to factor in more variables. The software also provides diagrams showing the composition of the remuneration, for example. In addition, it offers insights into the background to the surcharge, providing objective information about the development of the surcharge in an otherwise overheated debate.

Project profile

Project title: Development of the renewable energy surcharge (EEG) calculator, Analysis of the surcharge for 2014, The German EEG surcharge and the costs of electricity supply for 2014. An analysis of trends, causes and interactions

Contact: Dr. Markus Haller, m.haller@oeko.de Charlotte Loreck, c.loreck@oeko.de Institute Division: Energy & Climate Client: Agora Energiewende (renewable energy surcharge calculator and analysis of the surcharge for 2014), Greenpeace Germany Timescale: 02/2013 - 11/2013 Further information:

http://bit.ly/1dJEmJk (EEG-Rechner)

Dr. Markus Haller

Dr. Markus Haller is an energy and process engineer specialising in the analysis of the renewable energy surcharge. He has worked in the Oeko-Institut's Energy & Climate Division since early 2013. His other fields of research include electricity market design and grid expansion.

"The EEG calculator works out the renewable energy surcharge in just a few seconds. Users can change all the key variables, such as electricity prices and expansion of renewable energies. In this way, everyone can see for themselves how the surcharge is calculated."

An energy-efficient airport Climate-neutral Fraport AG: measures, scenarios, strategies

Frankfurt Airport is Germany's largest airport. It faces particular challenges relating to buildings management, logistics and process control. Working closely with professionals from the airport operator, Fraport AG, the Oeko-Institut has produced a climate assessment for the airport's operations, with a particular focus on energy efficiency in buildings, facilities and vehicles. As part of an in-depth analysis of the airport's efficiency potential, the Oeko-Institut's researchers, together with Fraport AG, developed a set of measures, scenarios and strategies and identified their impacts in terms of climate change mitigation.

In the debate about energy system transformation and the expansion of renewables, one aspect which is often overlooked is that energy transition can only be successful if our energy consumption is significantly reduced. The fact is that energy resources are finite – and this also applies in relation to renewables. For that reason, it is essential to make full use of the existing potential for energy efficiency. However, in many companies and, indeed, in every sector, the major potential for energy saving is still not being tapped. This applies to economically viable potential as well.

Fraport AG has put the issue of energy efficiency firmly on its agenda and commissioned the Oeko-Institut to undertake a climate assessment, whose findings will be channelled into buildings and energy management in future. The aim was to model potential scenarios for progress on energy efficiency, develop strategies for climate action on this basis, and identify measures to boost energy efficiency. The assessment focused particularly on carbon emissions from Fraport AG's activities as the operator of Frankfurt Airport. These emissions are mainly produced from the operation of buildings, facilities and vehicles. Key data were collected and collated for each of these areas of activity. After detailed analysis of the data, numerous measures for increasing energy efficiency were identified. The close cooperation with around 30 experts from Fraport AG throughout the project ensured that it achieved a high level of practical relevance combined with in-depth analysis. The climate assessment concluded with the development of three separate energy efficiency scenarios.

Project profile

Project title: Climate-Neutral Fraport AG: measures, scenarios, strategies Contact: Dr. Doris Schüler, d.schueler@oeko.de Institute Division: Infrastructure & Enterprises Client: Fraport AG Timescale: 09/2011- 03/2013

Dr. Doris Schüler

Sustainable use of key resources, such as energy and rare earths, is the main focus of Dr. Doris Schüler's research. A graduate engineer with a doctorate in energy and environmental technology, she has worked in the Oeko-Institut's Infrastructure & Enterprises Division since 2002.

"A substantial reduction in energy consumption is a key prerequisite for successful energy system transformation and effective climate action. That's why energy efficiency is so important. So it's particularly regrettable that a great deal of potential is still untapped here – even though much of this potential can be exploited in an economically viable manner."

In the depths of the night At the heart of the international climate process

The stakes are high, with the wheeling, dealing and horse-trading sometimes continuing until dawn and beyond. The UN Climate Change Conference also known as the international climate process - is a school of hard knocks for any negotiator. At present, the aim of the negotiations, involving close to 200 countries, is to set a pathway towards a new climate agreement which encompasses many more countries than signed up to the 1997 Kyoto Protocol. And since 1998, the Oeko-Institut has been at the heart of the negotiations, which aim to cut global greenhouse gas emissions and mitigate climate change. Over the past few years, the Oeko-Institut's researchers have conducted negotiations, chaired working groups and given lectures - doing so, once again, at the Warsaw conference in 2013.

The main objective of the UN Climate Change Conference in the Polish capital was to set a pathway towards a new international agreement. As a member of the German and therefore also the EU delegation, the Oeko-Institut was directly involved in the negotiations and focused on various topics: reporting and methods, flexible market mechanisms, and the inclusion of international aviation and shipping in a new climate agreement. The Oeko-Institut has conducted the negotiations on the topic of reporting on behalf of the EU for some years. This particular thematic area looks at ways of measuring and verifying individual countries' greenhouse gas emissions and providing financial support for developing countries and their mitigation programmes.

At the Climate Change Conferences, the researchers not only conduct negotiations: they are also involved in many other areas of activity.

They hold discussions with experts from other delegations and work in various bodies. The Oeko-Institut also shares its expertise at side events, which run in parallel to the negotiations. The experts engage in dialogue with other research institutions, give lectures and participate in discussion sessions. They thus made an important contribution to constructive exchange, alongside the official negotiations, at the Climate Change Conference in 2013 as well.

Project profile

Project title: Expert support for German Environment Ministry on aspects of transparency including reporting and verification within the scope of UN climate negotiations

Contact: Anke Herold, a.herold@oeko.de Institute Division: Energy & Climate Client: Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) Timescale: Present contract since 2013 Further information: http://bit.ly/1m52hH0

Anke Herold

Anke Herold has participated in the UN Climate Change Conferences for almost 20 years, joining the German delegation for the first time in 1998. A geoecologist, she has worked in the Oeko-Institut's Energy & Climate Division since 1997 and became its International Climate Policy Research Coordinator in 2009.

"For me, the 2001 climate negotiations in particular are an abiding memory. During those few days in Marrakech, the negotiations were intensive and we got very little sleep. One negotiating track, namely reporting, proved to be especially contentious and there were many issues that needed to be resolved. But the work paid off: we achieved some very worthwhile outcomes."

Land without rights Guidance for sustainable land use

The state of our soils and the sustainability of land use have a significant influence on human wellbeing. Yet in many places land is not used sustainably. This has serious conse-

quences – for water management and the world food supply as well as for the climate, biological diversity and many millions of people. The GLO-BALANDS research project, which is funded by the German Federal Environment Agency UBA, sets out to identify promising existing land-use policies and draw up recommendations for more sustainable international land use. Oeko-Institut scientists are among those working on the project.

Under the lead of the IINAS research institute, the project first assessed past and expected land-use changes worldwide and explored the reasons behind major land-use changes. In addition, international agreements and policies were examined and their relevance for sustainable land use considered. The information thus acquired provided a basis for drawing up recommendations for politicians and other decision makers that illustrate the opportunities for sustainable international land use. These recommendations were discussed in workshops with political, scientific and civil society stakeholders.

With the Ecologic Institute the Oeko-Institut has reviewed land-use-related regulations in ten countries. In addition, the researchers analysed a number of international and multilateral agreements and policies in areas such as international land and forestry policy, climate change mitigation, nature conservation, development policy and trade policy. Directly or indirectly, many existing policies impact adversely on sustainable land use and there is at present no overarching international agreement on the conservation and sustainable use of land and soils. There is also a lack of mechanisms for coordinating the various relevant conventions. In the analysis, the Ecologic Institute and the Oeko-Institut stress that some of the drivers of non-sustainable land use – such as population growth, high-meat dietary patterns and rising global consumption – are not being effectively addressed by any international policy.

Project profile

Project title: GLOBALANDS – Resource-efficient land use

Contact: Franziska Wolff, f.wolff@oeko.de Institute Division: Environmental Law & Governance Client: German Federal Environment Agency (UBA) Project partners: International Institute for Sustainability Analysis and Strategy (IINAS), Ecologic Institute, Leuphana University Luneburg Timescale: 11/2011 - 09/2014 Further information: www.ecologic.eu/globalands/

Franziska Wolff

Franziska Wolff's work focuses on issues of international and European environmental policy, for example in connection with land use and the management of natural resources. She is a political scientist and economist who has worked in the Oeko-Institut's Environmental Law and Governance Division since 2001; since 2012 she has been Deputy Head of the division.

"Land and soils are under pressure the world over, for example as a result of deforestation, fertiliser use and monocultures. This trend is affecting the environment and climate, and humans too. In the long term, only healthy soils can feed the world. In the GLOBALANDS project we are exploring what national and international policy can do to make land use more sustainable."

Environmental protection in Asia Criteria for green public procurement

When looking for a product that is as environmentally friendly as possible, there are many questions that we ask. Which lighting technology has the longest life and the lowest overall costs? Which computer solution is the greenest? Public authorities ask similar questions in respect of their procurement. Scientists at the Oeko-Institut have extensive experience of drawing up environmental standards for products and services. Since 2013, on behalf of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), they have been passing on this knowledge in Thailand and the ASEAN region.

An important element of the help provided to the Thai authorities in relation to green public procurement was a week-long workshop in Bangkok at which climate-related criteria for two product groups were discussed. Stakeholders from the private sector, the political sphere, and consumer and standardisation organisations considered the standards for printing paper and fluorescent lamps put forward by the Oeko-Institut. The Oeko-Institut has followed this up with proposals for printers, toner cartridges and copiers; other products will follow. As part of the project the Oeko-Institut is also making its methodological and technical knowhow available. And

it is training the staff of the Thai environment agency and public institutions in the ASEAN region in the development of standards for eco-labelling and green public procurement. As part of this work, the Oeko-Institut will run a regional training workshop for the target groups in Indonesia in the spring of 2014.

The aim of the project is to promote green public procurement in the ASE-AN+3 region and harmonise existing environmental standards. A workshop and training course on incorporating lifecycle costs into public procurement has already taken place in Malaysia. In the summer of 2014 a further step will be taken: in a workshop the Oeko-Institut and the participating ASEAN countries will attempt to standardise the different countries' criteria and start to discuss the issue of recognition of each others' eco-labelling systems.

Project profile

Project title: Advisory Services on Eco-Labelling and Green Public Procurement in Thailand and the ASEAN Region

Contact: Siddharth Prakash, s.prakash@oeko.de Institute Division: Sustainable Products & Material Flows Client: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Funding programme: International Climate Initiative Timescale: 09/2012 - 06/2015

Siddharth Prakash

Siddharth Prakash holds a Masters in Sustainable Forestry and Landscape Use. He has been working in the Oeko-Institut's Sustainable Products & Material Flows Division since 2008, exploring various aspects of sustainable consumption and product sustainability standards. He specialises in information and communication technology and consumer electronics.

"In Asia the economy is growing and consumption is rising, but environmental protection is still in its infancy. In Thailand and other ASEAN countries we are trying to initiate political discussion of product-related environmental performance. In collaboration with local stakeholders we are exploring the suitability of European eco-labelling standards in Asian countries, as a basis for developing useful systems for the region."

Risky refining Rare-earth facility with significant deficiencies

In Kuantan there are serious risks to people and the environment. In this city in eastern Malaysia the Lynas Corporation has a facility for refining rare earths: it processes ore concentrates from Australia that contain these valuable metals. The plant has serious shortcomings, as the Oeko-Institut established in a study conducted on behalf of the Malaysian NGO SMSL (Save Malaysia Stop Lynas). The study's findings

 have also been discussed at a workshop.

Rare earths are used in forward-looking technologies such as catalytic converters and wind turbines. However, mining and processing them is a source of major environmental problems. Rare earths always occur in conjunction with radioactive substances and they contain toxic chemicals such as arsenic and cadmium. Furthermore, refining frequently involves the use of aggressive chemical methods.

For SMSL the Oeko-Institut investigated whether the processing plant in Kuantan is releasing hazardous wastes and emissions. The study identified significant deficiencies at the plant: for example, airborne emissions of acidic compounds and dust particles are considerably higher than would be permitted under European standards. Insufficient precautions are being taken to prevent seepage from the storage of waste – some of which is radioactive or toxic – contaminating soils and groundwater. There is also no appropriate strategy for the safe long-term disposal of radioactive waste. And basic information needed for a full mass balance of pollutants is missing from the operator's documentation.

As part of the follow-up to the study, the Oeko-Institut took part in workshop organised by SMSL. In November 2013 experts discussed the impacts of the import of ore concentrate, processes in the Lynas plant and general environmental problems in Malaysia. The workshop evaluated whether the deficiencies that had been identified had since been remedied and considered what major environmental and health risks continue to pose problems in Kuantan. The state of affairs was found to be disastrous and demonstrated that, for the sake of humans and the environment, action must be taken.

Project profile

Project title: Description and critical environmental evaluation of the REE refining plant LAMP near Kuantan/Malaysia

Contact: Gerhard Schmidt, g.schmidt@oeko.de Institute Division: Nuclear Engineering & Facility Safety Client: Save Malaysia Stop Lynas (SMSL) Timescale: 08/2012 - 02/2013

Further information:

Oeko-Institut: http://bit.ly/1aNXa4g SMSL: http://savemalaysia-stoplynas.blogspot.de

Gerhard Schmidt

Radioactive waste is one of the issues on which the chemist Gerhard Schmidt focuses in his work. A Senior Researcher in the Nuclear Engineering & Facility Safety Division, he has been working for the Oeko-Institut since 1989. He frequently produces reports on the environmental impact of nuclear plants.

"It makes sense to ensure that rare earths are not mined and processed only in China. That way we can prevent China having a monopoly and develop an environmentally friendly alternative to the extensive pollution associated with Chinese mining. Anyone who wants to set up an environmentally sound alternative must be prepared to meet high standards. The plant in Kuantan has not passed this test."

A database for everyone More public participation in site selection for nuclear waste repositories

The search for sites for nuclear waste repositories is fraught with conflict, not only here in Germany. Similar controversy surrounds the debates in many other countries as well. The question of how to increase public participation in site selection processes has also gained in importance, notably in Central and Eastern Europe. Slovenia, Poland, Romania, the Czech Republic and Slovakia, for example, are keen to involve the public in the planning and selection of repository sites – and are supported in this process by the Oeko-Institut and 16 research partners from 11 countries.

The project – entitled "Implementing Public Participation Approaches in Radioactive Waste Disposal" (IPPA) – was co-funded under the EU's Seventh Framework Programme for Research (FP7) and aims to make stakeholder processes transparent, achieve high standards in participation procedures, and improve the quality of decision-making processes on the final disposal of nuclear waste. It also provides practical support for the implementation of stakeholder engagement activities and sharing of experience in the international context. Engagement activities include regular meetings of stakeholder groups, discussion events and seminars. During the project, the researchers from the Oeko-Institut surveyed members of stakeholder groups in Po-

land, Slovenia and the Czech Republic in order to elicit their views and expectations of the process and determine the extent to which these groups can exert influence. The responses provided by stakeholders from academia, politics, NGOs and civil society were then analysed and recommendations for improvements were developed for the various processes.

> Finally, the findings were incorporated into a knowledge

database, known as the IPPA Participation Toolbox. Since late 2013, this online platform has provided public access to tools, methods and processes for use in stakeholder engagement activities relating to site selection for nuclear waste repositories, enabling countries all over the world to draw on the lessons learned from the IPPA project. Integrated case studies based on real-world situations show how the tools, methods and processes can be applied in practice. The Toolbox also includes Guiding Principles and a short manual to explain the functioning of the knowledge database in more detail, thus supporting sound stakeholder engagement in site selection.

Project profile

Project title: Implementing Public Participation Approaches in Radioactive Waste Disposal (IPPA) Contact: Anne Akinsara-Minhans, a.akinsara-minhans@oeko.de Institute Division: Nuclear Engineering & Facility Safety Sponsor: European Commission Project partners: 16 research partners from 12 European countries Timescale: 01/2011 - 12/2013 Further information: http://www.ippaproject.eu http://toolbox.ippaproject.eu

Anne Akinsara-Minhans

Radioactive waste management and final storage are the main focus of Anne Akinsara-Minhans' work. A geoscientist, her research interests include planning and implementation processes and public participation in repository schemes. She has worked in the Oeko-Institut's Nuclear Engineering & Facility Safety Division since 2006.

"The IPPA project has given us a real insight into the various countries' tools, processes and methods for public participation in site selection for nuclear waste repositories. We have gained valuable practical experience showing which processes are genuinely viable and which factors can, in practice, impede or obstruct public participation."

Not effective enough The European CSR research project IMPACT

Engaging in green procurement, using less energy for lighting, helping staff achieve a good work/ life balance – these are just some of the areas in which companies are now introducing voluntary corporate social responsibility (CSR) measures. But how effective are these steps? Do they promote achievement of the European Union's sustainability targets? The Oeko-Institut has been exploring these issues in a study entitled "Impact Measurement and Perfor-

study entitled "Impact Measurement and Performance Analysis of CSR" (IMPACT) that is funded by the European Commission.

Under the scientific leadership of the Oeko-Institut, the seventeen research partners conducted surveys among small- and medium-size companies and questioned CSR experts. They also produced case studies of CSR networks and 19 major European companies in the automotive, retail, clothing, construction and ICT sectors. An analysis of existing material such as data from CSR rating agencies rounded off the research project. In October 2013 Oeko-Institut scientists discussed the study's key findings at a symposium attended by more than 80 guests.

The project's findings show that while voluntary corporate measures make a positive contribution, they are not enough: the EU's sustainability targets cannot be met through them alone. According to the study, almost all small, medium and large companies pursue their own CSR projects and are aware of the relevance of most of the 48 sustainability issues covered in the survey. But this awareness does not always lead to action: in relation to six of the issues the companies were doing nothing. Furthermore, it was clear from the experts' comments that "soft" political incentives such as CSR awards have no significant impact on CSR activities.

On the basis of the study's findings, the scientists recommend that policy in the relevant areas should not rely solely on voluntary measures and self-commitments. They emphasise the need for stronger regulatory measures such taxes, minimum standards and reporting obligations.

Project profile

Project title: Impact Measurement and Performance Analysis of CSR (IMPACT) Contact: Christoph Brunn, c.brunn@oeko.de Institute Division: Environmental Law & Governance Sponsor: European Commission Project partners: 16 European research partners Timescale: 02/2010 - 07/2013 Further information: http://csr-impact.eu www.oeko.de/csr2013 (in German language)

Christoph Brunn

Christoph Brunn studies governance and public policy, working mainly on issues of corporate social responsibility. Since 2010 the political scientist has been conducting research in the Oeko-Institut's Environmental Law & Governance Division.

"Many companies support the idea of greater sustainability. But sometimes the awareness that exists needs to lead to better action – otherwise the companies' social impact will not improve. For example, the respondents from the automotive industry were aware that the strong demand for critical resources is a matter of serious concern – but unfortunately this does not mean that they are actively addressing it."

Climate protection in China Scenarios and actions for emissions reduction

China must achieve significant reductions in its greenhouse gas (GHG) emissions as a matter of urgency. The People's Republic is currently the world's largest GHG emitter. The challenge facing the Chinese transport sector is to cut its emissions over the medium term despite continued strong growth in transport demand. On behalf of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the Oeko-Institut, since 2013, has advised policy-makers and academics in China on the development of climate protection scenarios and measures. As part of this process, it is engaged in an intensive dialogue with a research team from Beijing's Tsinghua University.

As the first project component, the researchers are advising the Chinese team on one key question: how can electromobility contribute to reducing emissions? In order to find some answers, the Oeko-Institut is assisting Tsinghua University to evaluate the market potential of electromobility and its possible contribution to climate protection in various provinces. During the Chinese research team's first visit to Germany in August 2013, approaches for modelling the development of the electromobility market and its interaction with power generation were discussed and elaborated.

> A further project component focuses on the development of climate protection scenarios for the transport sector. This component brings together transport sector stakeholders to discuss possible modelling approaches, available data sources and measures for reducing transport-related greenhouse gas emissions. The aim is to forecast possible future trends in

transport demand and related greenhouse gas emissions and identify options for reducing total transport-related emissions. The Oeko-Institut's experts will continue to provide advice on this issue until the end of 2014. They engage in discussions with local experts about the models and scenarios that have been developed and also participate in workshops with representatives from politics, research and industry. Here, they present their approaches for the development of climate protection scenarios and share key findings from their previous work on transport sector trends in Germany.

Project profile

Project title: Sino-German Climate Change Programme: Expert advice on the quantification of greenhouse gas emissions of the Chinese transport sector

Contact: Florian Hacker, f.hacker@oeko.de Institute Division: Infrastructure & Enterprises Client: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH Timescale: 12/2012 - 11/2014 Further information: http://sustainabletransport.org/

Florian Hacker

Florian Hacker holds a degree in geoecology and has also undertaken complementary studies in environmental management. He has worked in the Oeko-Institut's Infrastructure & Enterprises Division since 2007. His main area of research is sustainable mobility, with a focus on alternative propulsion technologies and fuels.

"When it comes to greenhouse gas emissions, China faces major challenges. Most of its electricity is still coal-generated, with renewables playing only a minor role. China must develop mitigation actions as a matter of urgency, also for the transport sector, where emissions have increased dramatically over the past few years."

Alliances for sustainability Selected clients of the Oeko-Institut

Policy-making and executive bodies

- Baden-Württemberg Ministries of Environment, Climate and Energy + Finance and Economics
- Berlin Department of Urban Development and Environment
- Deutsche Gesellschaft f
 ür Internationale Zusammenarbeit (GIZ)
- European Commission: Directorates-General for Energy, Research, Environment, Climate, Communication; EEA, Eurostat, Eaci, European Atomic Energy, Intelligent Energy Europe, Joint Research Centre
- European Environment Agency
- European Parliament
- Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
- Federal Ministry of Economics and Technology
- Federal Ministry of Education and Research
- Federal Ministry of Transport, Building and Urban Development
- Federal Public Services (FPS), Belgium
- Forschungszentrum Jülich
- German Federal Environment Agency (UBA)
- German Federal Environmental Foundation (DBU)
- German Parliament (Bundestag)
- Hamburg Department of Urban Development and Environment
- Hessian Ministry of Environment, Energy, Agriculture and Consumer Protection
- Lower Saxony Ministry of the Environment, Energy and Climate
- Luxembourg Ministry of Health
- Munich Employment Agency
- North Rhine-Westphalian Ministry of Economics, Energy, Building, Housing and Transport
- Rhineland-Palatinate Ministry of Economics, Climate, Energy and Regional Planning
- Saarland Ministry of Environment and Consumer Protection
- Schleswig-Holstein Ministry of Agriculture, Environment and Rural Affairs
- The Greens/EFA Group in the European Parliament
- UNEP
- United Nations University

Industry

- Asphaltec GmbH
- Audi AG
- BKV GmbH
- Daimler AG
- Entega GmbH & Co. KG

- Eunomia Research and Consulting Ltd.
- Fraport AG
- HIPP OHG
- KeTAG Baden-Württemberg
- Lufthansa Cargo AG
- MEIKO Maschinenbau GmbH & Co KG
- Miele & Cie. KG
- MVV Energie AG
- Oberalp Deutschland GmbH
- Oetjen-Dehne & Partner
- Rapunzel Naturkost
- REWE Group and REWE Zentralfinanz eG
- Saturn
- Solvay
- TÜV NORD EnSys Hannover GmbH & Co. KG
- Municipal energy suppliers of Karlsruhe and Ulm
- Volkswagen AG

Civil society

- Agora Energiewende
- BEUC (The European Consumers' Organisation)
- BIO Intelligence Service
- Bread for the World
- Bremen Consumer Advocacy CentreECOS
- Gemeinnützige Umwelthaus GmbH
- German Caravaning Industry Association (CIVD)
- German Deep-Freezing Institute
- German Federation of Energy and Climate Agencies (eaD)
- German Federation of Waste Management, Sanitation and Resource Industries (BDE)
- German Olympic Sports Confederation
- Greenpeace Germany and Greenpeace Nordic
- The Federation of German Industries (BDI)
- Leibnitz Institute of Ecological Urban and Regional Development
- Mercator Foundation
- NABU, German Nature and Biodiversity Conservation Union
- RAL Gütezeichen Quality Label Corporation
- Rhine-Main Aircraft Noise Control Association
- RWTH Aachen University
- "Save Malaysia! Stop Lynas!" NGO
- SEFEP (Smart Energy for Europe Platform)
- The Sustainable Agriculture Initiative
- TRAS (Trinational Anti-Nuclear Federation)
- Utopia AG
- WWF Germany

A full list of references is available (in German) at www.oeko.de/referenzen2013

Thinking globally, acting locally The management of the Oeko-Institut

Since 1977 the Oeko-Institut has been constituted as a non-profit association. It now has more than 2400 members, including 27 local authorities. The active members elect the Committee that runs the association. The Committee transfers responsibility for dayto-day operations to the Executive Board. The Executive Board performs its tasks in cooperation with the institute's scientific divisions and central services.

Executive Board

Prof. Dr. Armin Bechmann Prof. Dr. Nina Buchmann Dr. Susanne Dröge Dr. Erhard Eppler Prof. Dr. Martin Führ Dr. Christian Hey Prof. Dr. Regine Kollek Claudia Langer Prof. Dr. Heinrich Freiherr von Lersner Prof. Dr. Ellen Matthies Prof. Dr. Ellen Matthies Prof. Dr. Peter C. Mayer-Tasch Prof. Dr. Eckard Rehbinder Prof. Dr. Lucia Reisch Dr. Christian Schütze Prof. Dr. Dr. h.c. Udo E. Simonis

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Internal Committee members

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Michael Sailer Chief Executive Officer m.sailer@oeko.de



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Mandy Schoßig Head of Public Relations & Communications m.schossig@oeko.de

A look at communications

Ensuring that a uniform and contemporary image of the institute is presented to the public is an important part of the Public Relations & Communications Unit's work. A revised corporate design (CD) now provides the graphical framework for Word, Excel and PowerPoint documents such as studies, quotations and letters. Working papers are a new format that has been added recently. They provide the basis for publications that are not published as commissioned studies or reports.

The online version of our members' magazine eco@ work has also changed its appearance. We have devised both a genuine e-paper format and a leafthrough version that presents information about the Institute's projects and studies in an even more readable form. So that our scientific results can also be presented in graphic form, we regularly draw up new explanatory graphics. So far we have published more than 60 on the image-sharing site Flickr. Many of these have been created in the past year, adding to the material available to journalists and the media.

Another highlight of 2013 was the conference on corporate social responsibility organised by the Oeko-Institute. It was held in Berlin on 16 October 2013 and attracted some 80 guests from politics, industry and civil society. Rainer Grießhammer, Andreas Manhart and Christoph Brunn presented the main findings of IMPACT, a major European research project coordinated by the Oeko-Institut.

The first task of the Communication Unit is to support the aims of the Oeko-Institut's overall strategy and raise the institute's profile.



Based in Germany – ideas for the world

The members of the Oeko-Institut

The Oeko-Institut is supported by 2400 members from all over Germany, including 27 local authorities. Members' subscriptions, as well as the many donations we receive, enable us to pursue projects and develop solutions to sustainability problems outside our contract research. This means that we can work on issues that would not otherwise be financed and so adopt an independent position, make sure our voice is heard and put forward solutions to issues not covered in our day-to-day work.

In 2013 membership fees and donations brought in more than 230,000 euros. Among other things, they enabled us to implement our 2012 donation project "Does good food have to be expensive?"

We are particularly grateful to our members and donors for this!

Account details for donations:

GLS Bank Account number: 792 200 9900 Bank code: 430 60967

Contact for members:

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Further information: http://mitglieder.oeko.de

Donation projects – by and for donors

2012: "Political cookbook"

The 2012 donation project "Does good food have to be expensive?" is nearly finished. In this study we are setting out to do two things. We want to show what a high-quality, environmentally sound and healthy diet might look like in comparison to an average diet. In addition, we are highlighting and explaining the differences between types of diet with regard to the impacts they have on the environment and health as well as their costs to the consumer and their externalised costs. We are publishing the study's findings as a PDF and on our website. In addition, we are producing a "Political cookbook" containing recipes from well-known chefs as well as a compressed version of the study's results. All supporters who have donated 100 euros or more will receive a copy once the cookbook has been printed.

For further information on the donation project visit www.oeko.de/spendenprojekt2012

2013: "City of the future"

At the end of 2013 we announced the 2013 donation project "City of the future". Here, too, sufficient donations came in for the project to be run. On the basis of two sample cities, we are identifying the potential for liveable city centres enhanced by emission-free transport and drawing up strategies that take account of possible obstacles to further development in the cities. We shall elaborate concrete and feasible ideas and measures for a future plan "City centres that are worth living in due to emission-free transport" that could also be adopted by other cities. These ideas and measures will be passed on to decision-makers as recommendations for a sustainable transport policy.

For further information on the donation project visit www.oeko.de/spendenprojekt2013

In order to be able to continue working on strategic, socially important issues that we fund through donations and membership contributions, we need your support. Please consider becoming a member.



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