

IASS NEWSLETTER 3/2017

Institute for Advanced Sustainability Studies (IASS) | Potsdam, July 2017

Dear readers,

the IASS has adopted a German name and is now also known as the "Institut für transformative Nachhaltigkeitsforschung". This development underlines our aspiration to identify, promote, and shape transformations towards sustainability through research in cooperation with partners from policymaking, business, civil society and academia – in Germany and worldwide. For example, through the "Science Platform Sustainability 2030", which was launched in Berlin this May at the 13th Forum for Sustainability (FONA) of the Federal Ministry of Education and Research (BMBF). And through the policy recommendations delivered to the first UN Ocean Conference in New York this June by our experts on ocean governance.

We'd also like to ask for your help in improving our newsletter. Would you like to be updated on our activities more frequently? Do you prefer to receive newsletters as e-mails or as PDFs? And which topics interest you especially? Share your thoughts with us by taking part in our **online survey** – it only takes five minutes!

With best wishes for your summer

Eva Söderman Head of Press & Communications

Contents

- News from the IASS 1
 - Institute 3
 - Policy 5
 - Oceans 7
- Urban Development 9
 - **G20** 11 **Soils** 13
 - Solis
 - Digitalisation 15
- Climate & Air Quality 17 Energy 18
 - Art & Environment 20

- IASS Publications 2-26
 - Selected Publications 22
 - New Projects
- and cooperations 27
- Job Advertisements 29
 - Upcoming Events 30
- Contact and Imprint 31

NEWS FROM THE IASS







IASS Adopts German Name

IASS Scientific Director Ortwin Renn announced the institute's decision to adopt a German name at a meeting of a state parliamentary committee on science, research, and culture. **Read more ...**

"Science Platform Sustainability 2030" Launched in Germany

Research is crucial to sustainable development: a new science platform will support efforts to implement the German Sustainable Development Strategy and the United Nations Sustainable Development Goals. **Read more...**

World Ocean Conference: Regional Alliances for the Sustainable Use of the Oceans

In early June, researchers from the IASS presented their recommendations for efforts to implement the Sustainable Development Goal for the Oceans at the inaugural United Nations Ocean Conference in New York. Together with colleagues from partner institutes, the researchers presented a new report on the role of regional marine conservation. **Read more ...**

NEWS FROM THE IASS

Urban Development

IASS Supports Sustainable Urban Development in Norderstedt

Affordable housing, sustainable mobility solutions, and demographic change. As part of the "City of the Future" competition, the IASS is supporting efforts by a diverse team of stakeholders to develop sustainable solutions in the town of Norderstedt. **Read more ...**

G20

G20 Summit in Hamburg: IASS and Partners Publish Policy Recommendations

In the build up to the G20 Summit in Hamburg on 7–8 July 2017, the T-20 network of research institutes and think tanks, among them the IASS, published a series of policy briefs providing recommendations to foster sustainable development. **Read more...**

Soils

Soil Protection for Sustainable Development: Global Soil Week 2017 in Berlin

The fourth Global Soil Week, which was held in late May, focussed on the implementation of the United Nations Sustainable Development Goals. The roughly 300 participants developed recommendations for the fifth High-level Political Forum on Sustainable Development (HLPF) in New York. **Read more...**

Digitalisation

Industry 4.0: Chinese Employees Anticipate Greater Change

Will Industry 4.0 foster environmental protection, and how will it affect labour markets? A survey conducted by IASS researchers in Germany and China reveals strongly diverging expectations among employees from the two countries' manufacturing sectors. **Read more...**

Climate & Air Quality

Less Soot for a Better Climate

Reducing emissions of black carbon can reap rewards for both human health and the global climate. IASS Director Mark Lawrence presented the latest research on black carbon at a preparatory meeting in Bonn for the United Nations' Climate Conference. **Read more...**

IASS PUBLICATIONS



 Borbonus, S. (2017): Generating socio-economic values from renewable energies: An overview of questions and assessment methods. – IASS
 Working Paper, July 2017.



 Helgenberger, S., Jänicke,
 M. (2017): Mobilizing the co-benefits of climate change mitigation: Connecting opportunities with interests in the new energy world of renewables. – IASS Working Paper,
 July 2017.

Institute

IASS Adopts German Name



At the Institute for Advanced Sustainability Studies (IASS) researchers investigate pathways towards sustainable development. The institute, which works on important global and regional future issues, has established strong ties with both national and international partners. With its new German name, the institute aims to connect with its German and regional audience more directly.

The IASS has adopted the German name of "Institut für transformative Nachhaltigkeitsforschung" (literally: Institute for Transformative Sustainability Research). IASS Scientific Director Ortwin Renn announced the decision at Brandenburg's state parliament in mid-May. While presenting the institute to the Committee for Science, Research, and Culture, the sustainability researcher noted that "the discussion on important future issues is taking place globally, but many of the solutions lie at the local level. That's why we work closely with the city, the state government, and other research institutes here in Potsdam, as well as stimulating debate across Germany in dialogue with our partners."

Fostering transformation processes towards sustainable societies

The new German name underscores the institute's aspiration to identify, promote, and shape transformations towards a sustainable society through its research. IASS researchers cover both global issues and questions with a national or regional focus. Together with partners from policymaking, business, civil society and academia, they generate targeted and actionable knowledge and develop concrete options and solutions that are grounded in practical experience. The Bank Building at the Institute for Advanced Sustainability Studies in Potsdam.

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Further information: **www.iass-potsdam.de**

As IASS Scientific Director Patrizia Nanz explains, "What distinguishes our approach to research is that we don't just generate and analyse knowledge about necessary transformation processes; our research also brings about transformation. We initiate changes and contribute to their implementation. The new German name sums this up."

In focus: energy transitions, climate policy, and the Sustainable Development Goals

Around 140 researchers from over 30 countries work at the IASS. They investigate central sustainability issues such as the German energy transition and the implementation of the United Nations' Sustainable Development Goals and the Paris Climate Agreement. The institute is funded by the research ministries of the Federal Government of Germany and the State of Brandenburg. The English title "Institute for Advanced Sustainability Studies" remains the institute's official name and will continue to be used in conjunction with the acronym IASS in international contexts.

Policy

"Science Platform Sustainability 2030" Launched in Germany



In May, the 13th BMBF Forum for Sustainability (FONA) hosted the public launch of the Science Platform Sustainability 2030, which was attended by the Federal Minister of Education and Research, Johanna Wanka, and the Head of the Federal Chancellery, Federal Minister Peter Altmaier. The platform's operations will be jointly organised by the research networks Sustainable Development Solutions Network Germany (SDSN Germany) and the German Committee Future Earth (DKN Future Earth), together with the Institute for Advanced Sustainability Studies (IASS) in Potsdam.

"The science platform builds on existing research activities and will address challenges that other approaches have been unable to resolve", said IASS Scientific Director and Co-chair of the platform's steering group, Patrizia Nanz. The steering group brings together prominent figures from academia, policymaking, civil society, and the business sector. "Our focus will lie on overcoming path dependencies and breaking new ground. Science Platform Sustainability 2030 provides an opportunity to work together in new ways and to foster the emergence of a collaborative relationship that incorporates diverse points of view and prioritises both long-term thinking and a focus on the common good", explained the political scientist.

A platform to accelerate transformation processes

The science platform is "a decisive step towards the rigorous and effective implementation of the German Sustainable Development Strategy", added Dirk Messner, the co-chair of the Sustainable Development Solutions Network Germany (SDSN Germany). "Transdisciplinary debate, drawing on the best available knowledge and involving actors from academia, society, business, and policymaking, is critical to iniIASS Director Patrizia Nanz spoke at the launch of the new platform.

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Further information:

Science Platform Sustainability 2030

Keynote address by Prof.
 Patrizia Nanz (in German)

tiating and accelerating processes of transformation towards sustainability. The science platform provides a framework for this", explained Messner, who will also co-chair the steering group.

Martin Visbeck, the chairperson of German Committee Future Earth (DKN Future Earth) and the steering group's third co-chair, emphasised that the "scientific community will provide a broad foundation of systematically reviewed knowledge, identify and evaluate trade-offs and synergies, and develop innovative solutions. Research findings can deliver new insights for implementation strategies to support sustainable development in, with, and through Germany – particularly when viewed in their international dimension."

The next steps: thematic corridors and positioning

Science Platform Sustainability 2030 operates as an independent organisation and develops actionable solutions for transformation processes towards a more sustainable society. Its activities are underpinned by Germany's broad research landscape and will build on cooperation with international partners.

The co-chairs of the platform's steering group met with officials at the Federal Chancellery on 13 June as part of the Sustainability Forum established under the German Strategy for Sustainable Development. The steering group, which has convened twice since the official launch, will deliver a position paper in autumn, outlining the goals, structures, and operations of the platform as well as its initial areas of focus.

Science Platform Sustainability 2030 will contribute to the implementation of the German Sustainable Development Strategy. The platform will receive cross-ministerial support throughout its development and operation, in particular from the federal ministries for Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Education and Research (BMBF), Economic Cooperation and Development (BMZ), and Food and Agriculture (BMEL), as well as the Federal Chancellery. For further information, please contact the head of the platform's secretariat, Dr Falk Schmidt:

falk.schmidt@iass-potsdam.de

Oceans

World Ocean Conference: Regional Alliances for the Sustainable Use of the Oceans



Marine conservation took centre stage at the United Nations Ocean Conference in New York on 5-9 June. IASS experts on ocean governance presented their research findings there at several events organised in cooperation with partners from policy-making, academia, and civil society. The IASS had previously provided input and policy recommendations to the German Federal Government in the run-up to the conference.

How do efforts to protect the oceans interact with activities aimed at achieving other development goals? This issue was addressed in a panel discussion organised by the International Council for Science (ICSU) in cooperation with the IASS and other partners on 5 June. The event followed the publication by ICSU of the first comprehensive analysis of trade-offs and synergies between the Sustainable Development Goals. The panel discussion took its cue from the chapter on the Sustainable Development Goal for the Ocean, which was prepared by researchers from the IASS and the "Future Ocean" Cluster Of Excellence in Kiel.

Partnerships to protect our global ocean commons

Efforts to improve regional cooperation were the focus of an event in New York on 6 June, which was organised by the IASS in cooperation with the German Ministry of the Environment (BMUB), the Swedish government, the United Nations Environment Programme (UNEP), the Institute for Sustainable Development and International Relations (IDDRI), and TMG – Think Tank for Sustainability. At the event, which was attended by Swedish Environment Minister Karolina Skog and UNEP Executive Director Erik Solheim, IASS researchers presented a Marine pollution is one of the many growing threats faced by sea turtles.

© IASS/Carole Durussel

Further information:



 Unger, S., Müller, A., Rochette, J., Schmidt, S., Shackeroff, J., Wright, G., (2017): Achieving the Sustainable Development Goal for the Oceans. IASS Policy Brief, February 2017.



 Shackeroff, J., Atkinson, S.R., Awad, A., et al. (2017): Capacity Development for Oceans, Coasts, and the 2030 Agenda.
 IASS Policy Brief, August 2016. new report on the role of regional ocean governance, which was prepared with the support of the German Ministry for Economic Cooperation and Development and in cooperation with TMG, IDDRI, and UNEP.

The ten case studies of regional cooperation examined in the report include an initiative by six Asian island states to protect coral reefs as well as an alliance of eight Eastern African countries to combat illegal fishing. "We will be unable to achieve the sustainable development goals without cross-border and cross-sectoral cooperation", explained Sebastian Unger, the ocean governance project leader at the IASS. The former Federal Minister for the Environment and TMG founder Klaus Töpfer is also convinced of the need to act: "It's high time that we shared our knowledge about how the oceans can be used sustainably and worked in partnership to protect this global commons." The results of this event were subsequently injected into negotiations at the United Nations by the German government.

A second event, staged on 7 June and organised by the IASS in cooperation with the United States National Oceanic and Atmospheric Administration (NOAA) and other partners, discussed the role of capacity building in developing countries as a means to support the implementation of the UN Sustainable Development Goals.

Over-exploited and under-protected: new approaches to protecting the high seas

IASS researchers are now working to develop tailored solutions for specific marine regions under the umbrella of the Partnership for Regional Ocean Governance (PROG). Together with representatives of the German Ministry for the Environment, the United Nations Environment Programme, and the Comisión Permanente del Pacífico Sur, they presented the International Climate Initiative project "STRONG High Seas" (Strengthening Regional Ocean Governance for the High Seas) in New York. "Through this project we want to develop regional approaches for the conservation and sustainable use of biodiversity on the high seas, because these areas are being used more and more intensively and are not adequately protected under existing agreements", explained IASS marine scientist Carole Durussel.

At the event, Federal Minister of the Environment Barbara Hendricks pledged on behalf of the German Government to support the establishment of a PROG Forum to foster the development of new regional approaches to ocean governance. Further information:



Partnering for a Sustainable
 Ocean: The Role of Regional
 Ocean Governance in Implementing SDG14, Partnership
 for Regional Ocean Governance (PROG): IDDRI, IASS,
 TMG & UN Environment (2017).



SDG 14 - Conserve and
 Sustainably Use the Oceans,
 Seas and Marine Resources for
 Sustainable Development. In
 Griggs et al. (eds): A Guide to
 SDG Interactions: The Science
 Perspective. ICSU (2017).

Partnership for Regional
 Ocean Governance (PROG)

www.prog-ocean.org

Urban Development

IASS Supports Sustainable Urban Development in Norderstedt



Affordable housing, sustainable mobility solutions, and demographic change are among the challenges faced by cities today. Organised by the Federal Ministry of Education and Research (BMBF), the "City of the Future" competition brings together businesses, local government, researchers and members of the public to develop sustainable solutions for urban development. The IASS is supporting these efforts with its scientific expertise in the town Norderstedt in Schleswig-Holstein, one of twenty urban centres across Germany selected to take part in the second phase of the competition.

The IASS was chosen by a jury of sixteen experts from a field of five competitors, after presenting its proposal to foster dialogue and facilitate sustainable urban development to interested members of the public in Norderstedt on the previous day. The institute won the competition by a clear majority in the first round of voting, together with planning agency "landinsicht". "We felt that it was important for our concept to be firmly rooted in Norderstedt and reflect the town's unique characteristics. For example, the fact that the city is dominated by single-family households with plenty of green areas, but also lots of streets and public spaces", explained Manuel Rivera, a scientific project leader at the IASS.

Workshops to foster networking and debate

The winning proposal includes a wealth of individual measures and builds on previously established narratives that position Norderstedt as a walkable city set among green fields. Four coordinators will promote the measures in eye-catching workshops located across the city and develop them further in cooperation with the public. With its "City of the Future" competition, the Federal Ministry of Education and Research (BMBF) is seeking inspiring visions of sustainable urban development.

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Further information:

"City of the Future" Contest

The coordinators plan to study local needs, moderate discussions, bring actors together, and engage with existing initiatives in an effort to encourage greater public involvement in this transformation process. Workshops in all four quarters of Norderstedt will support the ongoing development of a vision for a sustainable city by representatives of civil society, science, local government, and business.

Creating a sustainable city through public participation

A team of researchers from the IASS will support the projects through research to address various issues, including:

- How can people who commute to Norderstedt be encouraged to become more involved in the life of the city?
- What can be done to future-proof neighbourhoods where ageing, single-family households predominate?
- How can the city's latent car-sharing capacity be activated so that public space can be re-purposed or greened rather than being used for parking?
- To what extent can agricultural activities be brought into the city and who could benefit from this?

The local government has pledged to support this work with a grant of fifty thousand euros. Additional funding will be provided by the Federal Ministry of Education and Research (BMBF) in the project's second phase. "The project in Norderstedt represents a unique opportunity for us to study and improve the implementation conditions for these major goals in an affluent, medium-sized town", said IASS Scientific Director Patrizia Nanz, who will supervise the research.

Work on the project will begin in autumn 2017 and continue into the coming year. If the research delivers promising and innovative findings, the IASS could be invited to participate in the third phase of the "City of the Future" programme. The BMBF would then provide additional funding for the project workshops over a five-year period.

G20

G20 Summit in Hamburg: IASS and Partners Issue Policy Recommendations



In late May, the "Think 20" (T20) network of research institutes and think tanks launched a series of publications at the T20 Summit in Berlin, providing decision-makers with important input on the prospects for sustainable development. IASS researchers contributed to six of the policy briefs. The authors wish to support the G20 countries in their efforts to align their policies with the Paris Agreement and the United Nations Sustainable Development Goals.

The economic impacts of the energy transition

The policy brief "Green Shift to Sustainability: Co-Benefits & Impacts of Energy Transformation on Resource Industries, Trade, Growth, and Taxes" considers how a shrinking fossil fuel sector will affect commodity markets, trade, growth, and taxes. The authors recommend that a joint report on the various impacts be prepared by a number of international institutions in cooperation with the G20 Task Force on Climate-Related Financial Disclosures. The report, they suggest, should outline to the heads of state and government of the G20, and their finance ministers and central bank governors, both the costs and the economic and social benefits of a shrinking fossil sector and address misleading signals.

Improving quality of life in Africa

"The G2O's Role in Improving Quality of Life through Sustainable Energy and Urban Infrastructure in Africa" considers issues around the development of infrastructure in Africa, with a particular focus on the energy sector. According to the authors, African cities in particular The maritime metropolis of Hamburg hosted the 2017 G20 Summit.

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Further information:

Green Shift to Sustainability: Co-Benefits & Impacts of Energy Transformation on Resource Industries, Trade, Growth, and Taxes. - G20 Insights - Climate Policy & Finance (2017).

The G2O's Role in Improving Quality of Life through Sustainable energy and Urban Infrastructure in Africa. - G20 Insights - Climate Policy (2017). need better infrastructure in order to meet basic needs and support the development of industrialised economies. At the same time, a reliance on unsustainable, carbon-rich technologies must be avoided.

The challenge of climate migration

The policy brief "Building Global Governance for 'Climate Refugees'" addresses the issue of climate-induced migration and displacement. The publication makes a range of recommendations to improve how global institutions and international norms deal with climate-induced migration. With experts anticipating rising numbers of climate migrants, the G20 must act swiftly, the authors argue. Unlike many other refugees and migrants, most climate refugees will be unable to return to their countries of origin.

Protecting our oceans

The G20 countries account for much of the world's coastlines and territorial waters. The policy brief "Sustainable Ocean Economy, Innovation and Growth: A G20 Initiative for the 7th Largest Economy in the World" recommends a number of measures to protect the oceans and conserve marine resources. The authors emphasise the importance of effective measures to ensure the sustainable management of our oceans as sources of food and raw materials as well as renewable and non-renewable energy. The policy brief recommends that the G20 undertake a range of initiatives to strengthen the Ocean Economy (also known as the Blue Economy).

The challenges around ocean conservation are explored in depth in a further policy brief published by the T20 initiative, titled "The Ocean Dimension of the 2030 Agenda: Conservation and Sustainable Use of the Ocean, Seas, and Marine Resources for Sustainable Development". Building Global Governance for 'Climate Refugees'. - G20 Insights - Forced Migration (2017).

 Sustainable Ocean Economy, Innovation and Growth: A G20 Initiative for the 7th Largest Economy in the World. - G20 Insights - Policy Briefs (2017).

 The Ocean Dimension of the 2030 Agenda: Conservation and Sustainable Use of the Ocean, Seas, and Marine Resources for Sustainable
 Development. - G20 Insights (2017).

Soils

Soil Protection for Sustainable Development: Global Soil Week 2017 in Berlin



From 22 to 24 May 2017 around 300 policymakers and stakeholders from the private sector, science, and civil society gathered at the fourth Global Soil Week to explore the potential of a land and soil review to catalyse action for the implementation of the United Nations Sustainable Development Goals. The participants developed policy messages for the United Nations' High-level Political Forum on Sustainable Development (HLPF), which met in New York on 10–19 July.

Thomas Gass from the UN Department of Economic and Social Affairs (DESA) emphasised the need for public debate to home in on the complex causes of land degradation. All too often politicians wait until problems become so serious that they have to come up with a quick fix. By showing how the different sustainable development goals are interlinked, soil and land specialists could enhance the expertise of the High-level Political Forum. Stefan Schmitz from the Federal Ministry for Economic Cooperation and Development said that the Global Soil Week showcases the potential of the SDG review process to catalyse collective learning processes.

Five recommendations for the United Nations

Five key recommendations were distilled from discussions at the conference, which participants hoped to bring to bear at the Highlevel Political Forum:

• Greater investment in responsible land management and the monitoring of progress are needed in future.

The United Nations Sustainable Development Goals were the focus of the Global Soil Week 2017.

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Further information is available on the Global Soil Week website:

www.globalsoilweek.org

• Consumption and production patterns must change, especially in countries with high levels of consumption, as it is these countries which cause land degradation in other parts of the world.

- An integrated approach to the rural-urban continuum should be adopted in spatial planning, recognised the many intermediate stages between 'truly urban' and 'truly rural' spaces.
- Land tenure and land rights for vulnerable people could be better safeguarded by recognising that human rights are under pressure because of the shrinking space afforded to civil society.
- A bridge must be built between SDG 2 (zero hunger) and SDG target 15.3 (achieving land degradation neutrality) to ensure food security by rehabilitating degraded soils and engaging in responsible land management.

During the closing plenary, the International Union of Soil Scientists (IUSS) presented Klaus Töpfer, the founding director of the IASS, with the IUSS Distinguished Service Award. Jochen Flasbarth of the Federal Ministry for the Environment (BMUB) honoured Töpfer's commitment to protecting soils at regional, national, and international levels. Flasbarth also praised his efforts to ensure that soils are considered in the UN sustainable development goals.

TMG to organise future Global Soil Week events

This was the last Global Soil Week to be organised by the IASS. In future, the conference will be coordinated by TMG ThinkTank for Sustainability, which was founded by Klaus Töpfer and former IASS Senior Fellow Alexander Müller. The Federal Ministry for Economic Cooperation and Development will continue to sponsor the Global Soil Week.



Assogba, S.-C.-G., Akpinfa,
 É., Gouwakinnou, G., Stiem,
 L. (Eds.) (2017): La Gestion
 Durable des Terres: Analyse
 d'expériences de projets de
 développement agricole au
 Bénin. - IASS Working Paper,
 February 2017.



 Koudougou, S., Stiem,
 L. (Eds.) (2017): La Gestion Durable des Terres au
 Burkina Faso: une analyse
 d'expériences de projets dans
 Ie Houet, le Tuy et le loba. IASS Working Paper, February
 2017.

Digitalisation

Industry 4.0: Chinese Employees Anticipate Greater Change



According to a recent IASS survey of employees in the industrial and manufacturing sectors in China and Germany, Chinese employees expect new technologies to affect the environment and labour markets to a greater extent than their colleagues in Germany. "The results of our survey suggest that the quality of changes brought about by Industry 4.0 technologies will vary between regions around the world depending on their existing industrial structures", explains lead author and IASS researcher Grischa Beier. As a highly industrialised pioneer of "Industry 4.0" technologies, Germany has already experienced some of the transformations now under way in China's emerging market economy.

Does digitalised production consume more or less energy?

While the industrial sector accounts for a similar share of gross value added in Germany and China – 26% and 32% respectively – its share of overall energy consumption differs substantially between the two countries. Whereas the sector accounts for 70% of overall energy consumption in China, it accounts for just 28% in Germany. Emissions from industrial sources are a major cause of environmental problems in China. Chinese respondents anticipate that digitalisation will lead to a significant reduction in energy demand from the manufacturing sector. In Germany, on the other hand, a majority of respondents from the sector expect demand to remain constant or to increase.

"One possible explanation for these diverging expectations is that many German businesses have already implemented measures to improve energy efficiency. Achieving further savings on a significant With just 36 robot units per 10,000 employees, China lags behind Germany in the use of automated technologies. There, some 292 robot units are deployed per 10,000 employees.

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Further information:

• The study and the survey findings are available **here.**

scale becomes more difficult against this backdrop. This experience also provides a benchmark against which anticipated progress can be measured", explains Beier. However, a majority of respondents in both countries anticipate that resource efficiency will play an important role in the future. Among Chinese respondents, a clear majority also expects that digitalisation will deliver considerable material savings.

Job losses in manufacturing and assembly, gains in development

Chinese respondents also expect to see more dramatic job losses and changes in job requirements than their German colleagues. Eightyeight per cent of Chinese participants anticipate that fewer or far fewer people will be employed in manufacturing, assembly, logistics, and technical services in future. In contrast, just over half of German respondents from the manufacturing and assembly sectors expect that the adoption of Industry 4.0 technologies will result in fewer or considerably fewer jobs (56% and 53% respectively). German respondents were notably upbeat on the prospects for job creation in development, with 77% of respondents anticipating job growth, compared to 46% of Chinese respondents.

A large majority of Chinese respondents expect that employees will need more advanced qualifications in future – especially in the manufacturing sector (93%). Participants in the German survey foresee less dramatic changes, with 66% of respondents expecting job requirements in the manufacturing sector to become more sophisticated. Twenty-five per cent of German respondents and 30% of Chinese respondents felt that their daily workload had become more or even considerably more demanding due to digitalization.

The concept of Industry 4.0 is still relatively young and very little research exists on the impact of digitalisation and interconnected industrial production on sustainability performance and resource efficiency. This study by IASS researchers helps to fill this gap.

Climate & Air Quality

Less Soot for a Better Climate



According to the Intergovernmental Panel on Climate Change (IPCC), black carbon – also known as 'soot' – is among the most potent climate forcing agents after carbon dioxide. How can policymakers and researchers advance efforts to reduce black carbon emissions? IASS Scientific Director Mark Lawrence outlined the current state of research on this issue in his presentation at a preparatory meeting for the United Nations' Climate Conference, which was held in Bonn this May.

In his presentation, which outlined the current state of research on black carbon and its impacts on health, the climate, and development, the climate scientist stressed that "there is no chance for us to stay below 2 degrees Celsius warming without reducing both carbon dioxide and the short-lived climate-forcing pollutants".

Black carbon: an important issue in Europe

Lawrence presented a new IASS Policy Brief, prepared in cooperation with Environmental Action Germany (DUH), which provides extensive background information on black carbon as well as policy recommendations for the next steps to reduce emission levels in Europe. Diesel exhaust and emissions from residential combustion are the primary sources of black carbon across this region, and strategies to reduce emissions must accordingly target these sources.

"Black carbon is not just a problem in developing countries; in Europe it also contributes to premature deaths and climate warming. In the European context, addressing the transport and residential heating sectors will be key to reducing our BC emissions and the associated negative impacts on health and climate", explains Kathleen Mar, a co-author of the policy brief. Mark Lawrence explained that particulate matter is the cause of roughly four million premature deaths annually worldwide.

© IISD

Further information:



 von Schneidemesser, E., Mar, K. A., Saar, D. (2017): Black
 Carbon in Europe: Targeting an Air Pollutant and Climate
 Forcer. - IASS Policy Brief, May 2017.



Lode, B., Toussaint, P. (2016):
 Clean Air for All by 2030?
 IASS Policy Brief, December 2016.



Energy

Expert Survey: Transition to Renewables Feasible and Realistic



An estimated 100 million people now receive electricity via distributed renewable energy systems, and markets for these systems are growing rapidly. This is one of the findings of the "Renewables Global Futures Report", which was published by the Renewable Energy Policy Network for the 21st Century (REN21) in New York in early April. "This report presents a wide range of expert opinions", explained Christine Lins, Executive Secretary of the network. The report will spur debate about both the opportunities and challenges of achieving a 100-percent-renewable energy future by the middle of this century.

The analysis is based on the views of 114 renowned energy experts from every region of the world, who were interviewed over the course of 2016. IASS researchers Rainer Quitzow and Sybille Röhrkasten conducted the survey of European energy experts. Among the interviewees were senior government officials and a member of the European Parliament, as well as leaders from civil society and the private sector.

Can renewables outcompete fossil fuels within the next decade?

More than 70% of the experts interviewed consider a global transition to 100 per cent renewable energy to be both feasible and realistic, with European and Australian experts most strongly supporting this view. Over 90% of the experts interviewed agree that renewable energy technologies serve to lower the barrier to gaining access to energy services for communities. Numerous companies, regions, islands and cities have set 100-per-cent-renewable energy targets. Renewables continue to make significant advances, but policy certainty and a stable climate for investment are critical to fostering further growth.

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Further information:

A press release on the report is available **here**.

Nearly 70% of those interviewed expect that the cost of renewables will continue to fall and assume that renewables will outcompete all fossil fuels in the space of the next decade. Wind and solar photovoltaic are in fact already cost-competitive with new conventional generation in most OECD countries. Countries as diverse as China and Denmark are demonstrating that GDP growth can be decoupled from increasing energy consumption.

Interests of conventional energy industry are an obstacle to further progress

The report also identified a number of challenges, however: In some regions, most notably Africa, the US and Japan, experts were sceptical about attaining the goal of a 100-per-cent-renewable energy supply in their own countries or regions by 2050, largely due to the vested interests of the conventional energy industry. Simple solutions, such as the replacement of combustion engines with electric drives, will not be sufficient to transform the transport sector. Instead, users will need to switch transportation modes, for example, from road to rail. The lack of long-term policy certainty and the absence of a stable climate for investment in energy efficiency and renewables hinder development in most countries.

"The global perspective taken in this report adds an important dimension to the debate on the future of energy production and consumption in Germany", commented Rainer Quitzow, Senior Research Associate at the IASS. "While Europe was an important lead market for solar and wind energy, the transition to renewable energy is now a global phenomenon."



 Matschoss, P., Bayer, B., Marian, A., Thomas, H. (2017): Die Integration dezentraler erneuerbarer Energien in deutsche Verteilnetze: Review der Regulierung und Ergebnisse exemplarischer Interviews. – IASS Working Paper, July 2017.



 Matschoss, P., Haas, A.
 (2017): The Organisation of an Electricity Sector based on Renewables - A Delphi
 Study. - IASS Working Paper, May 2017.

Art & Environment

Heinrich Böll Foundation and IASS Launch Series of Events in Chile



The IASS and the Heinrich Böll Foundation's (HBS) Cono Sur Regional Office have launched an innovative series of events in Chile to foster dialogue at the intersection of the arts, politics, and sustainability. At the heart of this programme is the acclaimed international art exhibition *"examples to follow! – expeditions in aesthetics and sustainability"*. The programme features discussion panels, workshops, guided tours, performances, and video screenings covering a broad range of sustainability topics. The series of events at Valparaíso Cultural Park and other sites across the city runs through to 13 August 2017. The exhibition will be supported by several initiatives in an effort to start a conversation on more sustainable models of living with the local community and with artists, politicians, and researchers from different countries.

Chile hit hard by climate change impacts

Chile is among the ten countries worst affected by climate change. Floods have caused fatalities and left thousands of people without access to safe water. Forest fires have wiped out homes, pasture, and livestock as droughts have affected 80 percent of the country. The impacts of tidal waves, storm surges, and a steady rise in average temperatures also highlight the magnitude of this ecological crisis. A looming resource scarcity crisis has also heightened the risk of serious territorial conflicts. Policymakers and actors across society must now work together to develop responses to these challenges that are both inclusive and sustainable. The organisers hope that the programme in Valparaíso will inspire and support change towards a sustainable future. What role can aesthetic experience play in sustainable development? Researchers from Potsdam and Valparaiso are exploring this issue.

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Further information:

To find out more, visit the Heinrich Böll Foundation. Overarching this debate, the exhibited art will enact sensibilities, fears and hopes, fostering imagination and critical reflection. In order to evaluate the role of artistic intervention and aesthetic experience in sustainable development issues, the IASS, together with a group of young researchers from Valparaíso, will conduct sociological research with visitors to the exhibition. Using interviews, observation, and group discussions, the researchers will explore the public's experience with the art. The collection of these impressions will allow them to evaluate the potential of the arts around the issues of sustainability.

Creative reflections for a sustainable society

The exhibition "examples to follow!" was conceived by the curator and former Senator for Science, Research and Culture in Berlin, Adrienne Goehler, who has gathered together works from more than sixty artists from different parts of the planet. Understanding aesthetics as a channel for the construction of other possible worlds, "examples to follow!" invites its audience to reflect and act creatively for a sustainable society. The exhibition has been presented in 15 cities since 2010, including Berlin, Mumbai, Addis Ababa, Beijing, São Paulo, Puebla (Mexico), and Lima, and has grown through the addition of new works at each station.

SELECTED PUBLICATIONS

Selected articles published by IASS researchers in peer-reviewed journals and specialist publications from April to mid-July 2017:

Journals

Bayer, B., Schäuble, D. (2017): Internationale Erfahrungen mit Ausschreibungen für erneuerbare Energien. – Energiewirtschaftliche Tagesfragen: et; *Zeitschrift für Energiewirtschaft, Recht, Technik und Umwelt*, 67, 5, pp. 56–58.

Link

Beehler, J., Fry, J., Negassa, W. C., Kravchenko, A. (2017): Impact of cover crop on soil carbon accrual in topographically diverse terrain. – *Journal of Soil and Water Conservation*, 72, 3, pp. 272–279.

Link

Bookhagen, B., Koeberl, C., Juang, L., DeRosa, D. A. (2017): Mineral Resources in Mobile Phones: A Case Study of Boston and Vienna Teachers and Students. – *Journal of Geoscience Education*, 65, 2, pp. 113–125.

Link

Churkina, G., Kuik, F., Bonn, B., Lauer, A., Grote, R., Tomiak, K., Butler, T. M. (2017): Effect of VOC Emissions from Vegetation on Air Quality in Berlin during a Heatwave. – *Environmental Science and Technology*, 51, 11, pp. 6120–6130.

Link

German, L., Götz, A., Searchinger, T., Oliveira, G. d. L., Tomei, J., Hunsberger, C., Weigelt, J. (2017 online): Sine Qua Nons of sustainable biofuels: Distilling implications of under-performance for national biofuel programs. – *Energy Policy*.

Link

Götz, A., German, L., Weigelt, J. (2017 online): Scaling up biofuels? A critical look at expectations, performance and governance. – *Energy Policy*.

Link

Götz, A., German, L., Hunsberger, C., Schmidt, O. (2017 online): Do no harm? Risk perceptions in national bioenergy policies and actual mitigation performance. – *Energy Policy*.

Link

Hunsberger, C., German, L., Götz, A. (2017 online): "Unbundling" the biofuel promise: Querying the ability of liquid biofuels to deliver on socio-economic policy expectations. – *Energy Policy*.

Link

Jänicke, M., Quitzow, R. (2017): Multi-level Reinforcement in European Climate and Energy Governance: Mobilizing economic interests at the sub-national levels. – *Environmental Policy and Governance: Special Issue: Multi-level Climate Governance: The global system and selected sub-systems*, 27, 2, pp. 122–136.

Jänicke, M. (2017): The Multi-level System of Global Climate Governance – the Model and its Current State. – *Environmental Policy and Governance*, 27, 2, pp. 108-121.

Link

Jones, C. R., Olfe-Kräutlein, B., Naims, H., Armstrong, K. (2017): The Social Acceptance of Carbon Dioxide Utilisation: A Review and Research Agenda. – *Frontiers in Energy Research*, 5, 11.

Link

Mauelshagen, F. (2017): Reflexiones acerca del Antropoceno. – *Desacatos Revista de Antropología Social*, 2017, 54, pp. 74–89.

Link

Mißling, S., Unger, S. (2017): Schutz und nachhaltige Nutzung der marinen Biodiversität in Gebieten jenseits nationaler Hoheitsgewalt. – *Zeitschrift für Umweltrecht*, 28, 6, pp. 338–345.

Link

Morris, C., Jungjohann, A. (2016): Großkraftwerke sind von gestern. – *Welt-Sichten*, 12–2016/1–2017, pp. 37–39.

Link

Nanz, P., Knappe, H. (2017): Einleitung "Gutes Leben, Politik und die Wissenschaft". – *KWI-Working Paper: Special Issue: Technologischer Fortschritt und gutes Leben*, 7/2017, 1, pp. 3–7.

Link

Otero Felipe, N., Sillmann, J., Butler, T. M. (2017 online): Assessment of an extended version of the Jenkinson-Collison classification on CMIP5 models over Europe. – *Climate Dynamics*.

Link

Quitzow, R., Huenteler, J., Asmussen, H. (2017): Development trajectories in China's wind and solar energy industries: How technology-related differences shape the dynamics of industry localization and catching up. – *Journal of Cleaner Production*, 158, pp. 122–133.

Link

Saerbeck, B., Jörgensen, K., Jänicke, M. (2017): Multi-level Climate Governance: The global system and selected sub-systems. – *Environmental Policy and Governance*, 27, 2, pp. 105–107.

Link

Schäfer, S., Lawrence, M. G. (2017): Klima schützen statt manipulieren. – Bizz energy. das Wirtschaftsmagazin für die Energiezukunft, 6, pp. 48–53.

Scheer, D., Grunwald, A. (2017): Orientierungswissen für die Energiewende: der Roadsmap-und- Navigation-Ansatz. – *GAIA – Ecological Perspectives for Science and Society*, 26, 2, pp. 155–155(1).

Link

Shakya, K. M., Rupakheti, M., Shahi, A., Maskey, R., Pradhan, B., Panday, A., Puppala, S. P., Lawrence, M. G., Peltier, R. E. (2017): Near-road sampling of PM2. 5, BC, and fine-particle chemical components in Kathmandu Valley, Nepal. - *Atmospheric Chemistry and Physics*, 17, 10, pp. 6503–6516.

Link

Sugiyama, M., Asayama, S., Ishii, A., Kosugi, T., Moore, J. C., Lin, J., Lefale, P. F., Burns, W., Fujiwara, M., Ghosh, A., Horton, J., Kurosawa, A., Parker, A., Thompson, M., Wong, P.-H., Xia, L. (2017 online): The Asia-Pacific's role in the emerging solar geoengineering debate. – *Climatic Change*.

Link

Thielges, S. (2017): 100 Tage Donald Trump: Was wird aus Amerikas Energiewende? – *Atlantische Themen*, 2017, 1, pp. 10–13.

Link

Specialist publications

Brand, U., Wissen, M. (2017): Imperiale Lebensweise: Zur Ausbeutung von Mensch und Natur in Zeiten des globalen Kapitalismus, München: oekom verlag, 224 pp.

Link

Hanusch, F. (2017): Democracy and Climate Change, (Routledge Global Cooperation Series), London: Routledge, Taylor & Francis Group, 288 pp.

Link

Nanz, P., Dingwerth, K. (2016): Participation. – In: Cogan, J. K., Hurd, I., Johnstone, I. (Eds.), *The Oxford Handbook of International Organizations*, Oxford: Oxford University Press, First edition, pp. 1126–1145.

Link

Petrov, A. N., BurnSilver, S., Chapin III, F. S., Fondahl, G., Graybill, J. K., Keil, K., Nilsson, A. E., Riedlsperger, R., Schweitzer, P. (2017): Arctic Sustainability Research: Past, Present and Future, (Routledge Research in Polar Regions), London: Routledge, Taylor & Francis Group, 110 pp.

Link

Renn, O. (Ed.) (2017): Das Energiesystem resilient gestalten: Szenarien – Handlungsspielräume – Zielkonflikte, (Schriftenreihe Energiesysteme der Zukunft), München: acatech.

Rivera, M. (2017): Entpolitisierung im Konsens: Ein kritischer Blick auf die Entstehung der SDG. – In: *Lepenies, P., Sondermann, E. (Eds.), Globale politische Ziele: Bestandsaufnahme und Ausblick des Post-2015 Prozesses*, Baden-Baden: Nomos, 1. Aufl., pp. 219–246.

Link

Schmidt, S., Neumann, B., Waweru, Y., Durussel, C., Unger, S., Visbeck, M. (2017): SDG 14 – Conserve and Sustainably Use the Oceans, Seas and Marine Resources for Sustainable Development. – In: Griggs, D., Nilsson, M., Stevance, A., McCollum, D. (Eds.), *A Guide to SDG Interactions: from Science to Implementation*, International Council for Science (ICSU), pp. 174–214.

Link

Technical reports

Kraemer, R. A., Carin, B., Gruenig, M., Blumenschein, F. N., Flores, R., Mathur, A., Brandi, C., Spencer, T., Helgenberger, S., Thielges, S., Vaughan, S., Whitley, S., Ruet, J., Ott, H. (2017): Green Shift to Sustainability: Co-Benefits & Impacts of Energy Transformation on Resource Industries, Trade, Growth, and Taxes. – *G20 Insights – Climate Policy & Finance.*

Link

Kraemer, R. A. (2017): The G20 and Building Global Governance for "Climate Refugees". - *CIGI Policy Brief, 107.*

Link

Kraemer, R. A. (2017): Green Shift to Sustainability: Co-benefits and Impacts of Energy Transformation. – *CIGI Policy Brief, 109.*

Link

Mutanga, S. S., Quitzow, R., Steckel, J. C. (2017): The G20's role in improving quality of life through sustainable energy and urban infrastructure in Africa. – *G20 Insights – Climate Policy.*

Link

Visbeck, M., Teleki, K., Pantzar, M., Orbach, M. K., Brink, P. t., Virdin, J., Rochette, J., Hornidge, A.-K., Farmer, A., Russi, D., Thiele, T., Bakshi, R., Bhatia, R., Boteler, B., Herédia, M., Kraemer, R. A., Krüger, I., Martinez, G., Mathur, A., Pendleton, L., Cunha, T. P. e., Rustomjee, C., Vaughan, S. (2017): Sustainable Ocean Economy, Innovation and Growth: A G20 Initiative for the 7th Largest Economy in the World. – *G20 Insights – Policy Briefs.*

Link

Wright, G., Schmidt, S., Rochette, J., Shackeroff Theisen, J., Unger, S., Waweru, Y., Müller, A. (2017): Partnering for a sustainable ocean: The Role of Regional Ocean Governance in Implementing Sustainable Development Goal 14, Potsdam: PROG: IDDRI, IASS, TMG & UN Environment, 73 pp.

Web articles

Neumann, B., Unger, S. (2017): Want to protect the oceans? Don't get stuck underwater, (ICSU Blog), 02. June 2017.

Link

Neumann, B., Unger, S. (2017): Want to protect the oceans? Time to consider the wider world of development, (The World Economic Forum: Agenda), 02 June 2017.

Link

Stevance, A.-S., Neumann, B., Unger, S. (2017): Focus on Interactions to Make the SDGs a Success: Our Key Messages for the Ocean Conference, (IISD: SDG Knowledge Hub; Commentary), 5 June 2017.

Link

New blog

The blog "Experts: Past, Present, Future. A Forum on Expertise about Sustainability, Energy and Development from the 19th Century to the Present" was launched in April. Over the course of three months, the blog explores the roles of expertise and experts in the fields of sustainability, energy, and development across various countries and from multi-disciplinary perspectives. The blog is published by the International Social Science Council (ISSC), in cooperation with the IASS and Birkbeck College London. "Experts: Past, Present, Future" is edited by Frank Trentmann, former IASS Fellow Anna-Barbara Sum, and Manuel Rivera, a scientific project leader at the IASS. A book will be published in connection with the blog in 2018.

www.expertspastpresentfuture.net

NEW PROJECTS AND COOPERATIONS

Environmental Guidelines of German Arctic Policy: Ensuring the ecological sustainability of activities in the Arctic through high environmental standards

Launched in early June, "Environmental Guidelines of German Arctic Policy" is a collaborative research and development project conducted by the Berlin office of Ecologic Institute and the IASS, in cooperation with Prof. Ralf Brauner of Jade University of Applied Sciences. The project will draft a set of guidelines for the development of German environmental policy in the Arctic, building on guidelines previously adopted by the German government in 2013. Researchers will also prepare three papers on topics related to the Arctic environment, with a focus on shipping, the further development of the Polar Code, and tourism.

Situated at the interface of science and policy, the project aims to ensure that future German Arctic policy is informed by the findings of science. The guidelines will outline in detail the relevant environmental issues, including the establishment of marine protected areas in the Arctic, biodiversity conservation, and the threats posed by oil spills, marine plastic pollution and invasive species as well as air pollution from various sources. This will enable policymakers to assess the opportunities for Germany to influence developments as an actor within the regional and international Arctic governance system.

As well as linking research and policy development, the project aims to raise awareness of Arctic issues in Germany. A workshop on German environmental policy relating to the Arctic is to be organised as part of the project, which will take place in 2018. The project outputs will include the development and production of a short video clip on the key issues.

The project "Environmental Guidelines of German Arctic Policy" is funded by the German Federal Environment Agency and will run for two years. Contact:

Kathrin Stephen

CO₂MIN: Accelerating the absorption of CO₂ in minerals

The natural minerals olivine and basalt are able to bind CO_2 over their entire natural life-cycle. However, it takes decades for the minerals to become saturated through natural absorption processes. How this process might be accelerated will be the focus of the research project " CO_2 MIN – Mineral Sequestration of CO_2 ".

Researchers working on the project will study the carbonation potential of siliceous minerals and residual materials from cement processing. Carbonised minerals could be used as value-added additive in the production of building materials and provide a solution for the permanent sequestration of carbon emissions. Researchers will also seek to identify and test other product applications. The cement industry hopes to reduce its carbon emissions and contribute to efforts to protect the climate through the development of these new technologies.

The project partners include major industry players and university research institutes: HeidelbergCement (project management) and RWTH Aachen University will study the suitability of different minerals and test their application under realistic process conditions. They will be supported by the IASS and the Dutch start-up Green Minerals. Life-cycle assessments (RWTH) and analyses of relevant environmental and social factors (IASS) will enable the researchers to evaluate the broader effects of the technologies developed in this project.

The Federal Ministry of Education and Research (BMBF) is funding the project, which began on 1 June 2017, with a sum of three million euros. For further information, **see this press release.**

Contact:

Barbara Olfe-Kräutlein

JOB ADVERTISEMENTS

Student Assistant

The IASS is currently seeking a

Student Assistant (m/f) for IT support

This position will remain open until it is filled.

Student Assistant (m/f) for the research project "Systemic Risks"

Deadline for applications: 31.07.2017

Student Assistant (m/f) for Press & Communications

Deadline for applications: 15.08.2017

Student Assistant (m/f) for Research Management & Organisational Development

Deadline for applications: 15.08.2017

Appointments

Prof. Dr Martin Jänicke, Senior Fellow at IASS Potsdam, has been appointed a visiting professor at Qinghai Normal University in China.

 To the job advertisement (in German)

 To the job advertisement (in German)

 To the job advertisement (in German)

 To the job advertisement (in German)

Contact:

Prof. Dr Martin Jänicke

UPCOMING EVENTS

August 2017

14 - 15 August 2017 Workshop: **"Towards a Contemplative Commons"** Organised by: IASS Venue: IASS, Potsdam

(By invitation only)

For further information, please see:

Link

24 August 2017

IPA Seminar: **"Critical Environmental** Justice Research: A Best Practice" with Dr Götz Kaufmann, Phillips-Universität Marburg/FFU, FU Berlin Organised by: IASS Venue: Salon Süd, Kleist Villa, IASS, Potsdam

(By invitation only)

Through to 13 August 2017

Exhibition, lectures, and artistic interventions: "examples to follow! – sustainable worlds"

Panel discussions:

3-6 August 2017 "Water: private property or common property?"

10 - 12 August 2017 "Future Cities and Citizens"

Organised by: IASS, Heinrich Böll Foundation Venue: Parque Cultural, Valparaíso, Chile

September 2017

September 2017

Summer Academy: **Potsdam Summer** School/Human Environments in a Changing World Organised by: IASS, AWI, GFZ, PIK, Uni Potsdam, Landeshauptstadt Potsdam Venue: IASS, Einstein Campus (06.09.), Campus Golm (08.09.)

(Closed event)

For further information, please see:

Link

11-13 September 2017

DBU Summer Academy: Air Quality Organised by: German Federal Environmental Foundation (DBU) IASS researcher Erika von Schneidemesser will speak on "Identifying Synergies and Conflicts in Implementation" at the Luft:Lab on 12 September. Venue: Kloster Volkenroda, Amtshof 3, 99998 Volkenroda

Registration ends 7 August:

Link

For further information, please see:

Link

21-22 September 2017

Meeting: Arctic Council Sustainable Development Working Group IASS researcher Kathrin Stephen will attend the meeting as the official German observer delegate. Organised by: Arctic Council Venue: Inari, Finnland

(Closed event)

October 2017

9-12 October 2017 Conference: Climate Engineering Conference CEC17

Could targeted interventions in the Earth's climate make a meaningful contribution to efforts to achieve the aims of the Paris Agreement? What climate engineering measures are under consideration, and what are the potential risks and challenges? CEC17 will bring together the research, policy, and civic communities to discuss the highly complex and interlinked ethical, social and technical issues related to climate engineering.

Organised by: IASS, in cooperation with Solar Radiation Management Governance Initiative (SRMGI) and Haus der Kulturen der Welt (HKW) Venues: Umweltforum, Neue Mälzerei, and HKW, Berlin (By invitation via **info@ce-conference.org**)

For further information, please see:

Link

10 - 11 October 2017

Kick-off Meeting: **STRONG High Seas** - **Strengthening Regional Ocean Governance for the High Seas** Organised by: IASS Venue: IASS

(By invitation only)

11 October 2017

Lecture: **Gesellschaftlicher Wandel durch neue Geisteshaltungen?** with IASS researcher Thomas Bruhn Organised by: Bildungsforum Potsdam Venue: Wissenschaftsetage (WIS), Am Kanal 47, 14467 Potsdam

(Registration required: vhsinfo@rathaus.potsdam.de)

12 October 2017

Lecture: **"Why Environmental Sustainability requires a Sustainable Economy and Democratic Reform"** with Lance Bennett Organised by: IASS Venue: Ballsaal in the Kleist Villa, IASS, Potsdam

(Open to the public)

23 October 2017

Inaugural workshop: **"Luftchemie an der Freien Universität Berlin: Perspektiven und Herausforderungen"** with IASS researchers Tim Butler and Martijn Schaap, both FU Berlin Organised by: Freie Universität Berlin Venue: Auditorium, Institute of Meteorology. FU Berlin, Carl-Heinrich-Becker-Weg 6-10, 12165 Berlin

(Open to the public)

To the IASS Calendar of Events

Join the discussion: Join the discussion: Can Russia imagine a post-fossil future? What will be the impact of China's growing influence on the energy sector in Africa? And what role will academic experts play in the climate engineering debate? Find out more in the latest blogs by IASS researchers!

Follow us on Twitter!

We keep you informed on a daily basis and tweet live from important events.

CONTACT AND IMPRINT

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