

Dear readers,

Sustainability touches on every aspect of our lives. This is one of the central messages of the new Sustainable Development Strategy adopted by the Federal Cabinet in January. Spanning over 250 pages, the strategy addresses 63 criteria across 15 fields, ranging from renewable energy to public debt, and from the prevalence of tobacco consumption to airborne pollution. Scientific expertise coordinated through the new SDG Science Platform at the IASS will play an important role in ensuring its efficient implementation. Meanwhile, newly-elected US President Donald Trump's plans to prioritise fossil fuels are already fanning the flames of controversy. Following the scrubbing of references to climate change from the White House website, climate scientists and sustainability experts are troubled at the prospects for the coming four years. The Scientific Directors of the IASS have voiced their concerns in a statement documented in this newsletter.

Clearly, 2017 is going to be an interesting year for sustainable development.

Best regards from Potsdam

Eva Söderman
Head of Press & Communication

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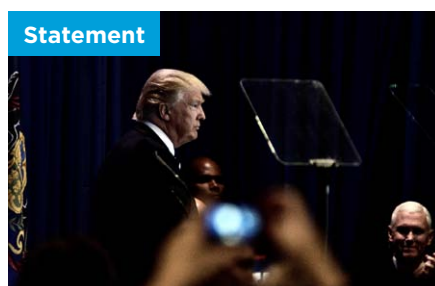
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NEWS FROM THE IASS



IASS Welcomes German Sustainable Development Strategy

The Institute welcomes the new Sustainable Development Strategy adopted by the Federal Cabinet on 11 January 2017. Its alignment with the United Nations Sustainable Development Goals and plans to foster greater collaboration between policymakers, science, and society are particularly positive developments. **Read more...**



Climate Protection and Sustainability Goals Jeopardised by New US President

In a joint statement, the Scientific Directors of the Institute for Advanced Sustainability Studies (IASS), Mark Lawrence, Patrizia Nanz and Ortwin Renn, have expressed their concern that Donald Trump's election victory will jeopardise international efforts to protect the climate and implement the United Nations Sustainable Development Goals. **Read more...**



IASS Recommends Ambitious Energy Agenda for German G20 Presidency

Germany assumed the presidency of the G20 in December 2016. This presents the German government with an opportunity to shape the energy agenda of the group of twenty leading industrialised and emerging economies over the coming year. The G20 is a crucial forum for efforts to advance a global energy transition. **Read more...**

NEWS FROM THE IAASS

Energy Transition

Impulses for a Global Energy Transition: Study Analyses Trends in G20 Countries

The group of twenty leading industrialised and emerging economies (G20) is responsible for 82 per cent of energy-related CO₂ emissions worldwide. Targeted measures by G20 states to develop low-carbon energy systems could boost efforts to protect the global climate. **Read more...**

Climate

Climate by Design? Special Issue Pays Tribute to Paul Crutzen's Contribution to Climate Engineering Research

Should we heed the advice of Nobel Laureate Paul Crutzen and intensify research on the use of targeted interventions in the climate system to reduce the risks of climate change? A new publication brings together researchers from diverse disciplines to reflect on the state of the art and the prospects for future developments. **Read more...**

Climate & Energy

Is There a Blueprint for the Coal Phase-out? A Discussion of International Experiences

As the Marrakech Climate Change Conference drew to a close, dozens of states announced their intention to phase out coal and other fossil fuels. In total, 48 countries have pledged to meet their energy needs through renewable sources, such as wind and solar power, as soon as possible. Learning from the experiences of other countries is now more important than ever. **Read more...**

COP22

Implementing the Paris Agreement: IAASS Attends COP22 in Marrakech

The United Nations Climate Conference in Marrakech, Morocco, reached its successful conclusion on 18 November 2016 after two weeks' of negotiations. The conference was attended by policymakers and representatives from science and civil society from around the world. Researchers from the IAASS were also in Marrakech. **Read more...**

IASS PUBLICATIONS



- **Clean Air for All by 2030?** IAASS Policy Brief, December 2016.



- **Concentrated Solar Power.** IAASS Fact Sheet, December 2016.



- **Bundesländer als Motor einer bürgernahen Energiewende?** IAASS Working Paper, December 2016.

NEWS FROM THE IASS

Participation

Municipal Utilities Lukewarm on Public Participation

Citizen participation is crucial to the success of the German energy transition as a project for socio-ecological transformation. Municipal utilities have an important role to play in fostering local energy transitions in cooperation with the public, but their embrace of citizen participation has been cautious to date. **Read more...**

Business

Highlighting Environmental Benefits: Raising Demand for Bio-based Products

Biodegradable plastic bags have long been available, as have cleaning agents and building materials made from sustainable raw materials. Experts agree that far more could be done with the available technology if demand was stronger. **Read more...**

Politics

How Much Is Enough? What German Parliamentarians Think About Economic Growth

The limits of economic growth have been the subject of debate since the 1970s. But how do economic growth and its desirability figure in parliamentary discourse? A new IASS Study offers insights into the thinking of German parliamentarians. **Read more...**



- **How green is a "Green City"?** IASS Working Paper, December 2016.



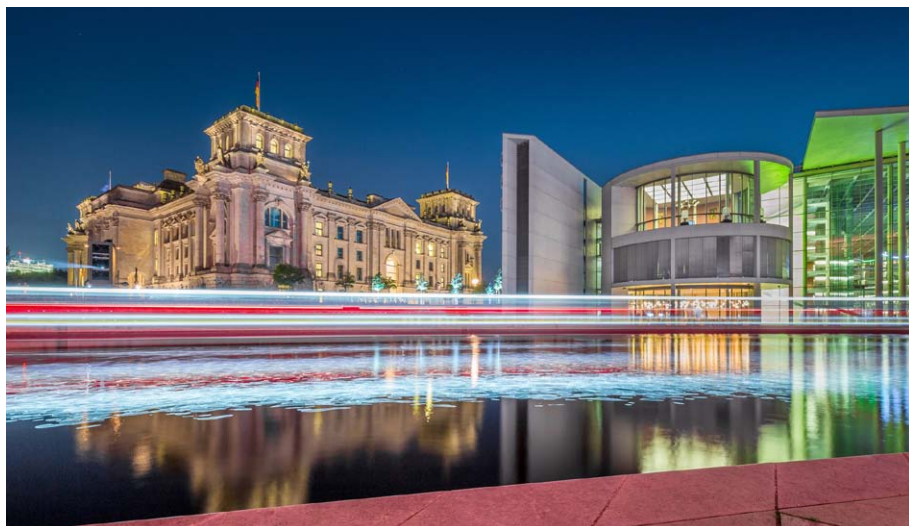
- **European Union Actorness in Arctic Governance.** IASS Working Paper, December 2016.



- **Towards a Comprehensive Research Perspective on Payments for Ecosystem Services.** IASS Working Paper, December 2016.

Institute

IASS Welcomes German Sustainable Development Strategy



Germany’s new Sustainable Development Strategy (2016) outlines the country’s efforts to foster global sustainable development around the 2030 Agenda and its Sustainable Development Goals (SDGs). “The strategy adopts a broad and forward-looking approach that supports the implementation of the 2030 Agenda *in, with, and through* Germany. The achievement of these global goals in Germany will become the touchstone of our efforts. At the same time, we must ensure that consideration is always given to the international implications of national implementation strategies. The question of how these challenges can best be addressed will accompany us through to 2030,” explained IASS Director Patrizia Nanz.

Science platform established for UN Sustainable Development Goals

The 257-page document is the most comprehensive update to the country’s Sustainable Development Strategy since it was first adopted in 2002. In July 2016, the IASS commented on a draft of the strategy in a statement that highlighted both the potential synergies and conflicts inherent to the 2030 Agenda’s comprehensive catalogue of goals. Scientific support, the IASS argued, would be critical to ensuring the effective implementation of the 2030 Agenda.

Taking up this point, the Sustainable Development Strategy notes: “The social, ecological, and economic challenges identified in the 2030 Agenda cannot be addressed without the support of science.” A so-called SDG Science Platform is currently being established to coordinate research around these issues, which will bring together the IASS and a number of partners, including SDSN Germany and DKN Future Earth.

The new edition of the Sustainable Development Strategy was adopted on 11 January 2017 in Berlin.

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Further information:

■ **A Sustainable Development Strategy for Germany:**

Information from the German Federal Government



■ Download **The Sustainable Development Strategy (2016)** here (available in German only)

Strengthening dialogue between science, policymakers, and society

The SDG Science Platform will contribute to the steering, dialogue, and implementation processes of the 2030 Agenda in Germany and will work closely with actors from across science, society, and policy-making to identify progress and deficits in the Agenda's implementation. A range of social actors will also contribute to its work. The IASS is expected to host the platform's coordination office, providing support to the full spectrum of research efforts around the implementation of the Sustainable Development Strategy.

The Institute will also contribute to the implementation process through its own research activities. Ocean sustainability, which is addressed in the 2030 Agenda through a stand-alone goal (SDG 14), forms a particular focus of this work. The Sustainable Development Strategy contributes to efforts to safeguard marine sustainability within the framework of the "Partnership for Regional Ocean Governance" (PROG) – an initiative spearheaded by the IASS, the United Nations Environment Programme (UNEP) and the Paris-based Institute for Sustainable Development and International Relations (IDDRI), with the support of IASS founding director, Klaus Töpfer. The programme, which is mentioned in the strategy, aims to "dismantle structural barriers to the integrated management of marine resources". Its key areas of activity include the implementation of the Goal for the Oceans (SDG 14) and the conservation and sustainable use of marine biodiversity in areas beyond national jurisdiction.

Citizen participation supports transformation towards sustainability

Patrizia Nanz, a political scientist and expert on successful citizen participation, explained that she looks forward to contributing to research under the new SDG Science Platform, following its launch in a few weeks. "It is more important than ever that we come to understand that citizens are not merely the passive targets of sustainability policy – rather, they take an active role in shaping our environment and we must empower them accordingly. This is particularly crucial in light of current populist tendencies and trends, which hamper the adoption of forward-looking perspectives," said Nanz.

Statement

Climate Protection and Sustainability Goals Jeopardised by New US President



Donald Trump's accession to the office of 45th President of the United States has left researchers in the field of sustainable development worried. "The term of office of the next US President spans a crucial period for efforts to lay the groundwork for the implementation of the Paris Agreement and the United Nations Sustainable Development Goals. The USA is one of the most important political actors and one of the largest emitters of greenhouse gases. The electoral victory of Donald Trump and the hardliners within the Republican Party gives us reason to fear that the USA will no longer work towards realizing climate protection and sustainability goals, but will rather hinder progress in these issues," explained Mark Lawrence, Patrizia Nanz and Ortwin Renn, the three Scientific Directors of the IASS.

International cooperation crucial to protecting climate

The Directors are particularly concerned at the implications of Trump's election for climate and energy policy. The adoption and swift ratification of the Paris Agreement represent a remarkable success, but actually reducing the risks posed by climate change will require broad cooperation at the international level. The involvement of the nations responsible for a large percentage of greenhouse gas emissions will be crucial, the statement emphasises. "The United States has often been a very difficult partner in climate policy negotiations, but its support for the Paris Agreement gave rise to the hope that this had changed for the better. Now, however, the campaign platform of Donald Trump – who has described climate change as a Chinese hoax – makes it clear that climate policy will face immense challenges."

Donald Trump's election as US President and his inauguration in Washington on 20 January 2017 mark a potential turning point in global climate and sustainable development policy.

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Further information:

- **"Donald Trump and the Future of Climate Protection":**
Blog by Sonja Thielges
- **"Trump, International Affairs, and the Environment: Can It All Come Together?":**
Blog by Myanna Dellinger

Challenges ahead for climate science

The outcome of the 2016 presidential election is also likely to have substantial repercussions for climate science. The US is a global leader in this field and Trump's victory represents a serious setback. The statement continues: "The international community therefore anticipates that it may have to continue to move forward without the support of the US government in order to keep the risks of climate change in check and promote the use of clean, carbon-free technologies. With a Republican majority in Congress, US energy policy under President Trump is nearly guaranteed to be a step backwards. His declared intention to pursue policies that will expand the fossil-based energy sector stands in stark contrast to the transition to renewable energy pursued by many countries around the world. This energy transition is urgently needed in order to create a sustainable energy system and effectively limit the effects of climate change."

Participative processes revitalise democracy

The outcomes of the Brexit referendum and the US presidential elections have revealed that many citizens have lost trust in their political representatives and feel that experts, the media, and researchers do not understand their concerns. "It is essential that scientists take this development seriously. We must show that expert knowledge can contribute to the democratic process. To this end, the IASS supports and accompanies various participatory processes - for example, citizen participation in Germany's energy transition - that promise to contribute to the revitalization and legitimation of democracy. The emergence of a rift within our society is the single greatest threat to the transformation to sustainability. What is required is the creation of spaces for public dialogue - even and especially with those who deny the facts," the statement concludes.

Energy Transition

IASS Recommends Ambitious Energy Agenda for German G20 Presidency



“Shaping an Interconnected World” is the motto of Germany’s G20 Presidency, which runs from 1 December 2016 through to 30 November 2017. It is a particularly fitting motto with respect to international energy policy as the group of twenty leading industrialised and emerging economies is responsible for more than three quarters of global energy demand and 82 per cent of carbon dioxide emissions from energy generation. Germany should accordingly use its term of office to present an ambitious agenda for a global energy transition at the meeting of heads of state and government.

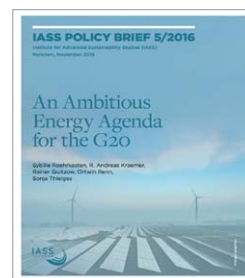
The most important bilateral donors in energy sector development cooperation – Germany, Japan, France, and the USA – are all members of the G20, as are leading providers of innovative technologies. The USA, Japan, China, the EU and a number of other states exert considerable influence on the technical and economic development pathways of future energy systems. There is, moreover, an important window of opportunity to advance an ambitious energy agenda. Two historical agreements were adopted by the United Nations in 2015: the Paris Climate Agreement and the 2030 Agenda for Sustainable Development. Achieving the goals of either agreement will be all but impossible without a fundamental transformation of the global energy system.

Far-reaching measures needed to foster global energy transition

The G20 is the central forum for international cooperation among the world’s twenty leading advanced and emerging economies on financial and economic matters. However, the group has only moved to address energy matters in-depth in recent years – primarily in terms of reducing subsidies for fossil fuels, and promoting renewable energy

Germany should push the G20 to adopt an ambitious energy agenda, argues a new IAASS Policy Brief.

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■ **An Ambitious Energy Agenda for the G20.** IAASS Policy Brief, November 2016.

Further information:

■ **“Strengthening the G20 sustainable energy agenda – the way forward”:** Blog by Sybille Röhrkasten

and greater energy efficiency, and around efforts to deliver universal access to energy. These measures still fall short of the action required to bring about a global energy transition. Germany, a recent IASS Policy Brief argues, should therefore use its presidency of the G20 to push for more ambitious efforts.

The policy brief presents three key recommendations: firstly, the G20 should take action to support the implementation of the Paris Agreement. G20 states should evaluate the compatibility of emerging trends and energy sector plans with climate protection goals, and should publish reports on their progress regularly. Secondly, the G20 should make sustainable energy a priority for discussions at future summits. Doing so would improve the ability of states to forecast and manage impacts on financial markets, economies, and public finances. Last but not least, G20 states should end all investment in fossil energy infrastructure. Multilateral and national development banks should be called upon to align their investment practices with climate protection goals and to cease all investment in the construction of coal-fired power plants.

Energy Transition

Impulses for a Global Energy Transition: Study Analyses Trends in G20 Countries



Researchers have analysed developments in the energy sector across fourteen G20 member states in a new IASS Study titled “Sustainable Energy in the G20: Prospects for a Global Energy Transition”. The brief case studies selected for the study highlight trends and political initiatives in Argentina, Brazil, China, the EU, France, Germany, India, Indonesia, Japan, Russia, Saudi Arabia, South Africa, Turkey, and the USA. Each of the studies identifies important developments that are strengthening international cooperation to advance a global energy transition.

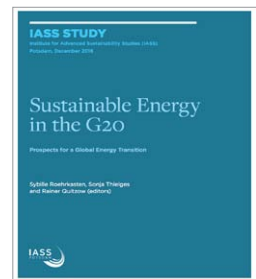
G20 states shifting to renewables

“The case studies were specifically selected to illustrate the heterogeneity of the G20. They include both industrialised and emerging economies, energy transition frontrunners and major producers of fossil fuels as well as key donors in the field of international energy cooperation and countries affected by energy poverty,” explains IASS researcher and co-editor of the study, Sybille Röhrkasten. The study covers key trends in the growth of renewables, improvements in energy efficiency, and international energy cooperation.

Among its findings, the study shows that energy systems in all of the examined G20 states are still largely dependent on fossil fuels. All of these countries have however signed the Paris Climate Agreement and have adopted renewable energy targets. The last decade has also seen energy generation from renewable sources gaining ground across all of the states examined in the study, albeit from very different starting points.

How is the energy sector changing across the G20? And what implications will this have for the global energy transition? A new IASS Study offers in-depth analysis.

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■ **Sustainable Energy in the G20.** IASS Study, December 2016.

Further information:

■ **Can the G20 Summit Give New Impetus to a Global Energy Transition?":** Blog by Sybille Röhrkasten

Climate protection secondary to other goals

While the members of the G20 have declared their intention to improve energy efficiency, progress has been comparatively slow. “There is plenty of room for improvement in this area,” notes IASS researcher Rainer Quitzow. The G20 appears to be split on the nuclear question. Whereas Germany is phasing out nuclear power, and even France, which derives much of its electricity from nuclear power, wants to reduce its share of the energy mix, several emerging economies are looking to grow their nuclear energy capacities.

In most of the countries covered by the study, concerns about climate change do not appear to be a key driver of progress on energy efficiency and renewable energy generation. Instead, policy is being shaped by a range of factors, including the wish to play a leading role in the renewables industry and to meet the growing demand for energy with a more diverse energy mix, as well as a desire to improve competitiveness and deliver benefits at the local scale such as improved air quality and water security. The influence of powerful interest groups associated with the fossil fuel and nuclear industries as well as challenges in infrastructure development are among the barriers to progress identified in the study.

G20 urged to ramp up efforts

The study’s editors emphasise the need for coordinated action on the part of the G20 countries. With its initiatives to address such urgent issues as energy access, the expansion of renewable energy capacities and energy efficiency, and the phasing out of fossil fuel subsidies, the G20 has already taken a number of important steps to implement the United Nations Sustainable Development Goals and the Paris Climate Agreement. “But this merely marks a beginning. The G20 must strengthen its efforts across all of these areas in order to foster the development of a sustainable, low-carbon energy system,” explained IASS researcher Sonja Thielges.

Climate

Climate by Design? Special Issue Pays Tribute to Paul Crutzen’s Contribution to Climate Engineering Research



Nobel Laureate Paul Crutzen

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The idea of intervening in the global climate to reduce the risks of climate change emerged several decades ago. But it was not until 2006 that climate engineering research really took off, following the publication of a paper in the journal *Climatic Change* by Nobel Laureate for Chemistry, Paul Crutzen. The paper sparked an unprecedented surge of interest in climate engineering within the scientific community and heightened awareness among policymakers and the general public. Organised by IAASS researchers Miranda Boettcher and Stefan Schäfer, a special issue of *Earth’s Future*, the journal of the American Geophysical Union, celebrates the tenth anniversary of Crutzen’s paper.

Research must address public concerns

“This special issue offers a unique opportunity for readers around the world – both in and outside academia – to take stock of geoengineering research developments since 2006, and to reflect upon the roles of science and society in future research and discussion of the approaches,” explains IAASS Director Mark Lawrence. In an article co-authored with Paul Crutzen, Lawrence argues that scientists must take an active role in the public debate on climate engineering, as a means of ensuring that research on the pitfalls and promises of climate engineering is conducted in a responsible way.

Several articles in this special issue consider the challenge of advancing a research agenda to deliver robust findings on the climate-relevant impacts of climate engineering while minimising the risks to people and the environment. Scientists David Keith and Peter Irvine from Harvard University analyse the regional impacts of climate

Further information:

■ *Earth’s Future* Special Issue: **Crutzen +10: Reflecting upon 10 years of geoengineering research**

engineering measures. They offer the hypothesis that Solar Radiation Management (SRM) – whereby solar radiation is reflected back into space by injecting sulfate particles into the atmosphere, for example – could be deployed in a way that reduces the global risks of climate change without making any country or group of countries worse off. Previous research findings, they suggest, lend plausibility to this hypothesis.

How does climate engineering research impact climate policy?

Pablo Suarez and Marten van Aalst from the Red Cross/Red Crescent Climate Centre explore the humanitarian dimensions of climate engineering impacts. In their contribution they call on researchers to develop a management framework to ensure that the risks posed by climate engineering to the well-being of the most vulnerable are minimised. Other aspects discussed in this special issue of *Earth's Future* include the role of models and simulations, and the potential for advancements in climate engineering research to stifle efforts to mitigate greenhouse gas emissions.

“Many of these issues were raised by Crutzen in his 2006 paper, and this collection underscores the prescience of his insights. For example, Crutzen called on the science community to undertake extensive research on climate engineering and to break the taboo surrounding the topic, but he also warned against the misuse of climate engineering to compensate for inadequate climate policy,” comments Miranda Boettcher. The articles collected in this special issue reflect the breadth and depth of research on the societal and political dimensions of climate engineering over the last decade. This broad scope, Boettcher and Schäfer note in their introduction, is a defining feature of climate engineering research.

Researchers, policymakers, and representatives from civil society will explore the potentials and risks of climate engineering research at the “Climate Engineering Conference 2017: Critical Global Discussions” (CEC17) on 9–12 October 2017 in Berlin. CEC17 is organised by the IASS in cooperation with several partners.

Further information: www.ce-conference.org

Climate & Energy

Is There a Blueprint for the Coal Phase-out? A Discussion of International Experiences



In November 2016, Canada announced that it would phase out coal-fired electricity generation by 2030. In the United Kingdom, the last coal-fired power station is to be taken offline by 2025. Denmark, meanwhile, plans to develop 100 % renewable electricity generation and heating systems by 2030. How, and under what political and economic circumstances, were these decisions made? How did countries resolve any arising conflicts?

A workshop at the IASS brought together researchers and officials from state agencies, government ministries, and think-tanks to discuss experiences in the United Kingdom, the Netherlands, Denmark, Germany, and the Canadian provinces of Alberta and Ontario. “We specifically invited experts from governments and scientific organisations from countries that have already gained experience in the process of phasing out coal in order to promote international exchange on this topic and identify lessons learned,” explained IASS researcher Dominik Schäuble.

United Kingdom: Carbon price floor supports coal exit

In 2015, the Secretary of State for Energy and Climate Change, Amber Rudd, confirmed her government’s intention of ending the United Kingdom’s dependence on “polluting, carbon-intensive 50-year-old coal-fired power stations.” Meanwhile, the UK government has continued to fund gas-fired and nuclear power stations and has cut subsidies for renewables. The growing obsolescence of the UK’s coal-fired power plants adds weight to efforts to promote a coal exit, and a rise in the carbon floor price to around €30/tonne in April 2015 has further undermined the cost-effectiveness of coal-fired electricity.

What have frontrunner countries learned through their efforts to phase out coal? A workshop held at the IASS in November 2016 explored the lessons learned so far.

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Further information:

- **Kicking the Coal Habit: China & Co. Offer Lessons for Germany:** Blog by Martin Jänicke

The Netherlands continue to operate new coal plants

In the Netherlands, the 2013 Energy Agreement has led to the closure of five out of ten coal fired power plants, and public debate on the future of coal is growing. However most of the country's coal-fired power plants were built in the 1980s and are therefore relatively efficient. Research is now underway to ascertain whether a Dutch coal exit, which would reduce carbon emissions in the Netherlands, would also have a positive net effect at the European level.

In Denmark, the last operational coal-fired plants are being taken off-line ever more frequently to allow wind energy to be fed into the grid. By 2050 the share of wind energy is to be increased to 50 per cent. All of Denmark's conventional power stations are configured for co-generation and supply district heating networks, for example, significantly increasing their efficiency. The conversion of coal plants to burn biomass is also being explored as an option.

Public health and climate concerns driving change in Canada

The Canadian debate about the coal phase-out centres not just on climate change mitigation, but also on public health concerns. The government involved medical associations in the development of plans to phase out coal. But Ontario and Alberta are taking very different paths towards this goal, not least because their respective coal sectors differ considerably. While Ontario does not have any coal mines, the nuclear industry plays a strong role in the province. Alberta, on the other hand, is moving to phase out coal in the hope of relieving pressure on the oil and gas industry to reduce its emissions. These factors have favoured coal phase-outs in both provinces.

“The framework conditions for a coal phase-out vary greatly from country to country; thus, there can be no blueprint that outlines the ‘right’ path. Nonetheless, an enhanced exchange of ideas helps us move forward, because experience with different approaches and policy instruments can be quite useful for other countries,” Daniela Setton, an IAASS researcher, remarked in summary. The results of the workshop will inform a study that Setton and Schäuble plan to publish this year.

COP22

Implementing the Paris Agreement: IASS Attends COP22 in Marrakech



Researchers from the IASS participated in a number of events at the United Nations Climate Conference in Marrakech. IASS Managing Scientific Director Mark Lawrence delivered the opening remarks at an event on “Industry 4.0 and Climate Change”. He also moderated a side event focussing on actions on near-term climate mitigation to protect air quality and achieve the Paris climate goals, which was organised by the IASS in cooperation with several partners.

Climate policy will be an important focus of research at the IASS throughout the 2017–2021 funding period. The project “Climate Action in National and International Processes” is concerned principally with regional efforts to protect the climate, among others in cooperation with the Climate & Clean Air Coalition (CCAC), with which the IASS has worked closely for several years. The IASS is also a lead partner in the CCAC’s Brick Production Initiative and the Regional Assessment Initiative on short-lived climate-forcing pollutants.

Talks with delegations and civil society

The implementation of the Paris Agreement is another major focus of the Institute’s work on climate change. Patrick Toussaint, an expert on environmental law at the IASS, travelled to Marrakech to interview experts from national delegations and representatives from civil society, science, and think tanks on key aspects of the treaty’s implementation and the roles of diverse actors in this process. Toussaint also attended the “Climate Law and Governance Day 2016” event in Marrakech.

IASS economist and political scientist Alexander Gusev took part in several events on the decarbonisation of the energy system and the ongoing development of renewable energy. Gusev’s main research

On location at the UN Climate Conference (COP22) in Marrakech, Morocco on 7–18 November 2016.

© UN Photo/Evan Schneider

Further information:

■ **COP22 and Beyond – Achieving the Paris Agreement:** Blog by Mark Lawrence

focus is the identification of strategies to reduce carbon dioxide and methane emissions. Environmental scientist Matthias Honegger of Perspectives Climate Change, who recently joined the IASS, spoke with negotiators and observers at COP22 about his research on sustainable economics and emerging fields of climate research. Legal expert Cicilia Githaiga participated in several events on the use of carbon dioxide as a raw material, which is the focus of her work at the IASS.

Participation

Municipal Utilities Lukewarm on Public Participation



Compared to their counterparts in the private sector, municipal enterprises are “closer” to the publics for whom they work. But what does this mean for their approach to participation? What options for involvement do they actually afford the public? These issues are explored in a new IASS Working Paper that draws on empirical research.

Research reveals ambivalence towards participation

“Citizen participation is a widely discussed topic,” explained lead author Ina Richter. “Public consultation schemes within infrastructure planning processes and citizen-owned energy cooperatives and wind parks all play a significant role in the German energy transition. What stakeholders actually mean when they talk about “participation” is not always clear however. Little research exists, for example, on how municipal utilities approach this issue. While several best-practice reports have been published, these are mostly based on individual cases.” The paper’s authors evaluated the available research and identified the following trends:

- **Utilities are divided on public participation and consultation.**

Municipal utilities are divided as to whether the energy transition, with its emphasis on decentralisation, will in fact lead to greater participation by citizens. The role of public consultation and input in decision-making processes around energy infrastructure projects like wind parks is a matter of controversy within the sector, but the grounds for this scepticism and the extent to which previous research findings might have been distorted remains unclear.

Municipal utilities have the potential to foster local energy transition in cooperation with the public.

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Mitarbeit



- **Bürgerbeteiligung, kommunale Unternehmen, Energiewende: Wie passt das zusammen?** IASS Working Paper, December 2016.

Further information:

- **Germany’s Federal States: Drivers of Participation in the Energy Transition?** : Blog by Boris Gotchev

■ **The scope of citizen participation has been limited to date.**

Municipal utilities expect renewable energy generation to be an important aspect of their future business. This provides opportunities to involve citizens to a greater degree in local planning processes. This is particularly appropriate, the authors note, in light of the conflicts arising in connection with, for example, the development of wind parks. In practice, improving citizen participation will require utilities to disclose more information and open planning to public scrutiny.

In terms of improving economic participation, there is evidence of a growing trend towards indirect, minority interest models of profit-sharing such as investment bonds rather than the joint ownership of utilities or selected renewable energy projects. Cooperative models are increasingly finding favour with municipal enterprises, particularly in connection with strategic joint ventures and partnerships between municipal enterprises, with energy co-ops also gaining ground.

■ **Public relations, customer retention, and acceptance are primary concerns.**

A review of the literature and available data suggests that municipal utilities view citizens primarily as customers. According to representatives from municipal utilities, this perception has been prevalent since the broad deregulation of energy markets in the late 1990s. The benefits of the resulting focus on customers and their needs are indisputable, the authors note. But this characterisation of citizens as customers does not take full advantage of the available opportunities for participation.

■ **Champions for change make a difference.**

The research findings suggest that, despite a number of striking success stories, utilities are not exactly competing to develop more ambitious models of participation. According to the study, a variety of factors determine whether and to what degree citizens are invited to participate in energy transition projects, among them the lack of financial and human resources as well as time constraints. Decision-makers with a strong personal interest in and understanding of the nature and benefits of participation are another critical factor.

Business

Highlighting Environmental Benefits: Raising Demand for Bio-based Products



Bio-based ingredients play a marginal role in public sector and business-to-business procurement in Europe despite their potential to contribute to a more responsible use of natural resources and a greener economy. What could be done to make these products more appealing? This challenge was the focus of two surveys recently conducted as part of the EU-funded project Open Bio. The survey's findings have now been published in the journal *Biofuels, Bioproducts and Biorefining*.

Market drivers differ widely across EU

IASS researcher Rainer Quitzow and Jan Peuckert (Technische Universität Berlin) surveyed 324 experts on private sector procurement from 17 EU countries and 171 experts on public sector procurement from 12 EU countries. Participants were questioned about the major market drivers and barriers, key information deficits, and their views on the impacts of product labelling and standardisation. The survey of private sector experts showed that the factors shaping market trends vary significantly across Europe.

“In France, for example, local value creation is a major driver. Seventy per cent of respondents considered it to be important. In Italy, on the other hand, biodegradable products are much more popular than in other EU countries. Around half of the Italian respondents considered this criterion important, and biodegradable cutlery and bio-plastic bags are already in widespread use there. However, their prevalence reflects an attempt to compensate for the fact that recycling systems there are less advanced,” explained Rainer Quitzow. The market drivers and barriers identified by German respondents were in line with those considered relevant by most other respondents across Europe.

What can be done to boost the acceptance of bio-based products? A recent survey of experts offers crucial insights.

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Further information:

■ Peuckert, J., Quitzow, R. (2016): **Acceptance of bio-based products in the business-to-business market and public procurement: Expert survey results**

Respondents identified a range of positive effects relating to bio-based products, including lower fossil fuel dependence, reductions in CO₂ emissions, and public image benefits.

EU develops standards for bio-based products

The surveys' findings will inform the work of the European Committee for Standardisation (CEN), which is developing a set of standards attuned to market requirements for bio-based products. A database for use in public sector procurement has already been established within the framework of the Open Bio project, providing information on bio-based products for use in landscape gardening, electronics, and office furnishings. The sustainability of these products will need to be reviewed on a case by case basis however, emphasised Quitzow: "The environmental benefits of bio-based products remain unclear, and few studies have been undertaken to compare them with conventional products."

Environmental performance certification schemes (eco-labels) rarely take the impact of extracting fossil-based raw materials into consideration. Instead, the political scientist explained, they tend to focus on production processes and waste disposal. Existing recycling systems have been developed to handle conventional products, lending these products a clear advantage in the competition for certification. The development of EU-wide standards will play an important role in addressing this challenge. Extending the scope of eco-labelling schemes to include the impacts of materials extraction, Quitzow and Peuckert argue, would contribute to efforts to increase the acceptance of bio-based products.

Politics

How Much Is Enough? What German Parliamentarians Think About Economic Growth



The question of whether economic growth hinders or promotes sustainable development has been the subject of heated debate. For some, both the consumption of natural resources and the environmental harms that accompany economic growth pose a threat to the future of our planet. Others claim that it is only by improving their economic performance that societies can hope to address social and environmental concerns. In the middle-ground between these two extremes, there are those who make the case for a model of growth that is socially and ecologically sustainable.

Discussion of the feasibility and desirability of economic growth has spread beyond academic circles in recent years and the issue has become a matter of public debate, particularly in German-speaking countries. IASS researchers interviewed members of the German parliament and their employees in an effort to understand how these concerns are reflected in parliamentary practice. The researchers compared the responses of their interviewees with publicly available parliamentary documents, including government communiqués, briefings, and motions tabled by groups in the German parliament.

Is growth still a major policy goal?

In its seventeenth legislative term, the German parliament commissioned an Enquete Commission to consider the issue of economic growth. In its final report, the commission noted that there was an emerging consensus that prosperity can no longer be equated solely with material growth. But can fundamental issues such as intergenerational justice, the Earth’s carrying capacity, and the desire to future-proof the German economy and numerous social systems be properly

German parliamentarians may well have their own opinions on economic growth but this is not reflected in official documents.

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■ **Das Wachstumsparadigma im Deutschen Bundestag.**
IASS Study October 2016.

addressed in everyday parliamentary practice with its various committees and groups? Are parliamentarians able to form an independent opinion on such issues that will resonate with stakeholders and electorates?

A new IASS Study reveals the contrast between the personal views of many parliamentarians and the positions outlined in official documents from the German parliament. According to the study's authors, their interviewees' more nuanced positions were by and large reshaped but not entirely overshadowed by party political influences. In the documents analysed by the researchers, economic growth figured frequently as a goal in its own right, comparable to job creation – a linguistic strategy which, the authors argue, confirms growth as a policy goal and wards off criticism.

SELECTED PUBLICATIONS

Selected articles published by IASS researchers in peer-reviewed journals, edited volumes, and technical reports from late October 2016 to late January 2017:

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NEW PROJECTS AND INITIATIVES

Kopernikus: A Navigation System for the Energy Transition

Over 200 researchers from 76 institutions attended the kick-off meeting for the Kopernikus project “Energy Transition Navigation System” in Berlin on 19–21 December 2016. The research consortium comprises 64 scientific research institutes, flanked by partners from the private sector and civil society. The IASS will coordinate the consortium’s research activities.

The Federal Ministry of Education and Research (BMBF) has approved up to €400 million in funding for the four Kopernikus Projects for the Energy Transition. The projects, which will run for ten years, will investigate different aspects of the energy transition and develop concrete proposals for its implementation. Their findings will feed in to the Kopernikus project “Energy Transition Navigation System”, which will generate solutions to advance the energy transition and support decision-making.

Karl Eugen Huthmacher, who heads the Department for Provision for the Future – Basic and Sustainability Research at the BMBF, emphasised in his welcoming address: “We have to understand the energy transition as a continuous learning process, the progress of which is nonetheless marked by uncertainty. There can be no ‘master plan’ – and nor will there be one in future. We must have the capacity to assess our efforts and to make adjustments where necessary. Research will be vital to achieving this goal and that is where this project will make a difference.”

“There has never been a research programme like this,” said the consortium’s spokesperson, IASS Director Ortwin Renn: “This will be the largest joint social research project ever conducted in Germany.” Unlike the three other Kopernikus projects, which focus on technical aspects such as transmission grid development, the modernisation of industrial processes or options for energy storage, “Energy Transition Navigation System” draws on a broad spectrum of expertise across the social sciences and creates a point of engagement with actors from the fields of policymaking, the private sector, and civil society.

For further information, see:

■ **Link**

Contact:

■ **Stefan Stückrad**

dynamis: Cooperation for a Socially Sustainable Energy Transition

On 1 December 2016, the innogy Foundation, the 100 Prozent erneuerbar Foundation and the IASS announced the launch of their new research cooperation *dynamis*. This venture will fill an important gap in the energy policy landscape by addressing the issue of social sustainability. “The energy transition holds enormous potential for society, but we can only tap into this if we understand the risks, the opportunities, and the challenges presented to all the various groups in our society,” explained Ortwin Renn, scientific director at the IASS.

dynamis will explore the field of social participation. Who shares in the economic benefits of the energy transition? Who doesn't? Who is involved in political decision-making processes around this transformation? To what extent does the energy transition enable citizens to live the life of their choosing? *dynamis* will take up these questions and more in the research project “Social Sustainability Barometer for the Energy Transition”. “Social sustainability is the bottleneck of the energy transition. And social equity is becoming the focus of increasingly heated political debate,” emphasised Renn. There is a lack of robust knowledge within this debate.

dynamis will explore solutions to promote a decentralised energy transition. These will be developed in areas where decentralised energy transitions have either made strong progress or stalled. “We have made living laboratories our method of choice. We want to identify which models of participation in decentralised energy transition work in practice and which do not,” explains René Mono, director of the 100 Percent Renewable Foundation. “We will then feed the findings of our work in these living laboratories back into the scientific and political debate. This dovetailing of scientific research, on-the-ground trials, and subsequent analysis and reflection is a defining feature of *dynamis*, which we like to describe as a think-do-rethink tank.”

Bringing together three very different partners, *dynamis* reflects a new approach to research in this field. “We have to move outside our comfort zones and begin to shape the energy transition as a collective undertaking,” outlines Stephan Muschick, managing director of the innogy Foundation. “This no doubt rather unusual cooperative venture marks a first step.”

For further information, see:

- [Link](#)

Contact:

- **Daniela Setton**

JOB ADVERTISEMENTS

Academic positions:

The following positions are currently open:

Research Associate (m/f)

Education/Psychology (Post-Doc, 100%)

This position is initially foreseen for the period ending 31 December 2020.

Deadline for applications: 19 February 2017

Doctoral Candidate (m/f)

Project Scientist for the research project “Climate Engineering and Mitigation: Illusion, Complement, or Substitute?”

This position is initially foreseen for the period of two years.

Deadline for applications: 15 February 2017

Doctoral Candidate (m/f)

Project Scientist (50%)

This position is initially foreseen for the period ending 30 September 2019.

Deadline for applications: 12 February 2017

Student Assistant (m/f)

The IASS is currently seeking a Student Assistant to provide IT support. This position will remain open until it is filled.

▪ [To the job advertisement](#)

▪ [To the job advertisement](#)

▪ [To the job advertisement \(German\)](#)

▪ [To the job advertisement \(German\)](#)

UPCOMING EVENTS

February 2017

15 February 2017

Meeting of the Working Group on *Erdgestaltung*, Federation of German Scientists (VDW)
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

March 2017

2 March 2017

Workshop: **Mobilizing the multiple benefits of renewable energies in China**
Organised by: IASS & GIZ
Venue: Peking (By invitation only)

13–15 March 2017

Workshop: **Modelling**
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

16 March 2017

Workshop: **IRGC Expert Meeting on Systemic Risk Governance**
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

22 March 2017

Workshop: **Expert Workshop on the Implementation of the Paris Agreement**
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

28 March 2017

Lecture (in German):
“Ethischer Welthandel” & “Die innere Stimme” – a discussion of the latest books by the founder of Economy for the Common Good – Christian Felber
Organised by: IASS
Venue: IASS, Potsdam

April 2017

3–5 April 2017

Workshop: **CEC 17 – Steering Committee Meeting**
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

4 April 2017

Workshop: **Kopernikus ENavi AP11 & 12**
Organised by: IASS
Venue: IASS, Potsdam
(By invitation only)

12 April 2017

Lecture: **“Natural gas – A bridge to low-carbon future?”** Staged as part of the series *Schon heute an morgen denken im klügsten Haus der Stadt*.
Organised by: proWissen Potsdam e. V.
Venue: WIS in Bildungsforum Potsdam, 4. OG, Raum Gundling,
Admission free

Further information:

- [Link](#)
- [To the IASS Calendar of Events](#)

Join the discussion: What energy agenda should Germany promote during its presidency of the G20? How will Trump’s election affect international climate policy? And how can we put our society on track towards a sustainable future? Read the latest posts by IASS researchers on our blog!

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