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**LOW CARBON ECONOMIC
DEVELOPMENT AND BEYOND:
COOPERATION AREAS
FOR A GREEN ECONOMY**

**A SINO-GERMAN DIALOGUE
BERLIN 18TH JANUARY 2011**

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LOW CARBON ECONOMIC DEVELOPMENT AND BEYOND: COOPERATION AREAS FOR A GREEN ECONOMY

Overcoming the environmental policy challenges of the 21st Century — climate change, increasing resource scarcity, and the loss of biodiversity — calls for a comprehensive transformation of the current economic system into a system based on sustainability. In order to blend economy and ecology, the concepts of a green economy and green growth have come to the fore in the past few years. Twenty years after the UN Conference on Environment and Development (1992), the UN General Assembly decided on a »Green Economy in the context of sustainable development and poverty eradication« as a focus for the Rio+20 Conference in June 2012 to be held in Rio de Janeiro.

China and Germany are key drivers of the transition toward a global green economy. On 18 January 2011, high ranking experts from both countries, by invitation of adelphi and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, discussed opportunities for cooperation to promote a green economy. Focus issues of the dialogue included challenges and perspectives of a green economy and innovative policy approaches in the areas of sustainable and low carbon urban and regional development, as well as cleaner production in industry. The discussion further served to identify other priorities in the areas of environmental protection and sustainable resource use beyond climate and energy policy.

Enormous potential for further cooperation exists in both countries, and it could be better taken advantage of through a common platform aiming at the development and broadening of innovative bilateral concepts and projects. Following the conference, university research institutes and think tanks from Germany and China discussed possibilities for future cooperation. The talks were held in order to enable a regular expert exchange on the subject of a green economy. This includes the development of a joint work program and common activities such as the organization of workshops, preparation of publications, personal exchanges, and cooperative side events at international conferences. The work of the network is intended to systematize information exchange in support of government initiatives in both countries and to facilitate the diffusion of innovative and concrete policy measures, especially on the local and regional levels. »Governance of a Green Economy« and »Sustainable Metropolitan Policy« were identified as possible thematic fields of cooperation.



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KATHERINA REICHE
 PARLIAMENTARY SECRETARY OF STATE, GERMAN FEDERAL MINISTRY
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**OPENING: LOW CARBON ECONOMIC
 DEVELOPMENT AND BEYOND: COOPERATION
 AREAS FOR A GREEN ECONOMY**

The idea of a green economy is gaining importance worldwide. It was with this assertion that **Katherina Reiche**, Parliamentary Secretary of State of the German Federal Ministry for the Environment, opened the Sino-German expert dialogue in Berlin. The international conference of the United Nations on sustainable development planned for 2012 in Rio de Janeiro (Rio+20) provides the opportunity to chart important international progress in the transformation to a sustainable economy. The Secretary of State cited recent progress in international climate negotiations in Cancún, Mexico as proof of the international community's ability to establish a low carbon economic system.

Sino-German cooperation, stated Katherina Reiche, can act as an important catalyst in international discussions on a green economy. This can be seen in the successful cooperation in the context of Sino-German environmental fora, the common undertakings under the International Climate Protection Initiative, and the German-Chinese climate working group established in the fall of 2010. Through the enormous potential for innovation in both countries, China and Germany are particularly well placed to further the transformation to a green economy worldwide.

**»GERMAN-CHINESE
 COOPERATION CAN BE A MOTOR
 OF THE GREEN ECONOMY«**

Gao Guangsheng delivered a positive assessment of Sino-German cooperation. As Head of Department for Climate Change, National Policy, Implementation, and Monitoring at the National Development and Reform Commission, he stressed the important role of climate protection in Chinese policy, which is reflected in the wide ranging measures in the 12th five-

year plan of the country. In addition to the closure of inefficient power stations, cement manufacturing plants, and energy saving measures in companies and buildings, the five-year plan calls for the all-encompassing expansion of renewable energy. There are also a variety of initiatives to promote an environmentally sound economy at the regional level.

Gao stressed the importance of international cooperation for Chinese efforts to implement low carbon technology and effectively address climate change.

China is still a developing country with 150 million people living under the poverty line. Therefore, measures must be promoted that on the one hand protect the climate, and, on the other, further development. It is exactly this challenge that Sino-German cooperation intends to address.

**»WE WANT TO PROMOTE
 MEASURES THAT PROMOTE
 CLIMATE PROTECTION
 AND DEVELOPMENT«**

SESSION I: INPUT STATEMENTS

An appraisal of Sino-German cooperation in the promotion of environmental improvement was at the centre of the opening plenary session. The expansion of existing activities was evaluated not only for its uses for Germany and China, but also for its symbolic effect for the international discussion regarding a green economy and the associated establishment of a global low carbon and more resource-efficient economic system.

Liu Xuhong, Head of Department for Foreign Capital and Overseas Investment at the National Development and Reform Commission, stressed in her statement the importance of foreign investment for establishing a green economy. Liu



LIU XUHONG
 HEAD OF DEPARTMENT, FOREIGN CAPITAL AND OVERSEAS INVESTMENT,
 NATIONAL DEVELOPMENT AND REFORM COMMISSION (NDRC), PEOPLE'S
 REPUBLIC OF CHINA



DR. ASTRID SKALA-KUHMANN
 COUNTRY DIRECTOR, GIZ CHINA

explained that in the formulation of policy measures for promoting investment, one must take the challenges of a green economy into consideration. In China, the action plan for the use of foreign capital plays a central role in this context. The

»INVESTMENT INCENTIVES AND DIRECT INVESTMENTS ARE IMPORTANT INSTRUMENTS OF A GREEN ECONOMY«

plan includes incentives for the promotion of environmentally sound projects and takes into consideration the issue of climate protection, specifically the task of protecting forests and natural resources. She further noted the pivotal role of international development banks, which provide the financial means for environmentally friendly projects. This has also been a crucial component of Sino-German cooperation. Germany has financially supported sustainable development in China since 1985, for example, through credits provided by the Kreditanstalt für Wiederaufbau (KfW).

In her statement, the Country Director of the GIZ China, **Dr. Astrid Skala-Kuhmann**, examined the central areas of action and building blocks of Sino-German cooperation for a green economy. She emphasized that both countries are fitting partners in the green economy transformation process. China plays a prominent role as an emerging economic power of the

»GERMANY AND CHINA ARE IDEAL PARTNERS IN THE TRANSFORMATION PROCESS TO A GREEN ECONOMY«

21st century and Germany leads in the global market for environmentally friendly technology and in the development of policy measures for a green economy. Ms. Skala-Kuhmann identified three central fields of action for a green economy: First, in order to deliver sustainable growth, an important variable will be the development of resource efficient production methods. In order to promote innovation and entrepreneurship, the role of the private sector must be strengthened. Second, she named development of green infrastructure as a building block, that could be systematically implemented through the targeted use of environmental policy instruments, as can be seen in the case of the renewable energy feed-in law. The sector is an essential

point of action for Sino-German policy makers. Finally, it would make sense to take a closer look at the potential of green jobs and then create the necessary structures for associated professional training. The field represents a central building block of the green economy, and is of particular interest for developing and emerging economies.

point of action for Sino-German policy makers. Finally, it would make sense to take a closer look at the potential of green jobs and then create the necessary structures for associated professional training. The field represents a central building block of the green economy, and is of particular interest for developing and emerging economies.

Stephan Contius, Head of Division for the United Nations and cooperation with Developing and Emerging Countries at the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety, explained the central goals of the UN sustainability conference »Rio+20«: Sustainable development and poverty reduction are in the foreground of the Rio+20 conference. In this context, the concept of a Green Economy, systematically aims to promote environmentally friendly growth and development, especially in developing and emerging economies. The EU supports the adoption of a UN Green Economy Roadmap at Rio+20 in 2012. The goal is to provide all interested states with country-specific consultation for the transformation to a green economy. In pursuit of this goal, bilateral dialogue — such as this Sino-German conference — is just as relevant as further development of international environmental governance, which is also on the agenda at Rio+20.

»THE UN GREEN ECONOMY ROADMAP SHOULD ACCELERATE THE TRANSFORMATION OF THE ECONOMIC SYSTEM«

SESSION II: LOW CARBON AND ENVIRONMENTALLY SUSTAINABLE CITIES AND PROVINCES — LESSONS LEARNT FROM CHINA AND GERMANY

Along with the exploration of innovative measures on the municipal and provincial levels, Session II examined central fields of action in the establishment of a green economy. In so



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ALEXANDER CARIUS
 CO-DIRECTOR, ADELPHI, BERLIN

doing, the significant role of appropriate framework conditions established by government, especially in the area of concrete goal formulation and possible implementation options, comes to the fore. Moreover, the discussion made it clear that there is a need to point out the economic potential of environment and climate protection. This should be done in order to communicate the importance of environmentally friendly and resource efficient growth beyond individual innovation centres. In pursuit of this goal, Sino-German city partnerships could prove to be useful tools.

Prof. Dr. Li Fengting, Vice Dean, Institute for Sustainable Development, Tongji University, Shanghai, characterized efficient resource management and the changing of the patterns of consumption as central challenges on the regional and

local levels in putting China on the path toward a green economy. With Shanghai as an example, he highlighted the importance of the adaptation of energy structures. Simultaneously, he pointed out the

»RESOURCE EFFICIENCY AND CONSUMPTION PATTERNS ARE CENTRAL CHALLENGES FOR A GREEN ECONOMY IN CHINA«

first successes in public transportation through the establishment of wide reaching underground/subway systems. As drivers for the transformation, Li identified measures for decreasing dependence on fossil fuels, promoting renewable energy, minimising energy use in industry, and increasing the energy efficiency of buildings.

The researcher **Wang Le** from the Guangzhou Institute of Energy Conversion at the Chinese Academy of Sciences laid out the perspectives of Guangdong as a pilot province for low carbon development. She highlighted the important contribution of science and research. In this vein, her institute is currently developing a medium-term low-carbon roadmap for

»SCIENCE AND RESEARCH MAKE AN IMPORTANT CONTRIBUTION TO THE DEVELOPMENT OF LOW CARBON STRATEGIES«

Guangdong, which will consist of the interplay between technological and regulatory elements. Transformative processes are

stressed, for example, in the case of innovative technologies such as LED systems. Further, the development of a baseline in carbon intensive sectors such as building and construction are central activities of the institute.

Zhang Yue, CEO of BROAD Air Conditioning, compared the progress toward the reduction of resource consumption in the building sector in Germany and China and found that the sector in China still has a lot of potential for further measures. He underlined that in the area of building insulation, there is a lot of energy to be saved and appraised the possible savings through building renovation at up to 80 percent. Zhang stressed that there are plans in China to follow the precedent established of such cities as Hamburg. However, he also pointed out that these ideas have not yet effectively been implemented and that guidelines for energy efficiency are neither sufficient nor adhered to.

»CONSUMERS AND INVESTORS BOTH WIN WITH THE USE OF EFFICIENCY TECHNOLOGY«

Instead of hard rules, Zhang advocated a »softer way« in which investments in energy efficiency are made economically profitable and investment potential is aroused through clear communication of the economic benefits. For consumers as well as investors, it is important to be able to recognize the potential for individual gain from efficient technologies. At the same time, in the short term, he highlighted the importance of easy-to-implement measures in order to tackle the task of convincing people of the importance of the green economy transformation process. In a second step, one could commence with the implementation of capital intensive large projects. Thusly, the necessity of energy savings can be better communicated through the diverse transformation processes going on in Chinese society.

Michael Geißler, CEO of Berliner Energieagentur, underlined the challenges and successes of Berlin on the way to a green economy, although he stressed the importance of the whole Berlin-Brandenburg region for this process. Berlin is primarily a service centred city. The use of the savings potential in the building sector is therefore first in line. Here, despite a good



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DIRECTOR, ENVIRONMENTAL POLICY, SCHOOL OF PUBLIC POLICY AND
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DR. CHRISTOPH BEIER
CHAIRMAN, DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE
ZUSAMMENARBEIT (GIZ) GMBH

**»WE TAKE ADVANTAGE
OF INNOVATIVE FORMS OF
COOPERATION BETWEEN
THE STATE AND THE
PRIVATE SECTOR«**

policy-legal framework, there is still a considerable implementation deficit. This can be traced back to the fact that the steps for implementation measures are not sufficiently known and therefore not taken into account in business plans and consumer behaviour. In addition to the implementation of efficiency

technology, the correct usage of such technology is important, which guarantees further efficiency gains in the area of building operations. Further, the renovation of the local power utility structures is a central priority. Through its complicated

budgetary situation, the capital must resort to innovative cooperative measures, for example in the framework of Public-Private Partnerships (PPPs). The specific role of the Berliner Energieagentur lies in further highlighting economic potential of climate protection measures, which include, not least, the creation of jobs.

Dr. Benno Hain, Head of the Coordination Office for Climate Protection, Urban Development and Environment Authority in the City of Hamburg, followed up with his statement regarding the necessity of systematically communicating the potential of a green economy. He underlined the necessary activation of citizen participation for »green« urban development through

**»CITY PARTNERSHIPS
HELP IMPROVE ENERGY
EFFICIENT MOBILITY IN
METROPOLITAN REGIONS«**

targeted communication to specific social groups. In Hamburg, as European Environmental Capital 2011, this means that the conceptual requirements of a sustainable city need to be transposed into

tangible measures. Thereby, one should not forget to solidify the elements of a green economy on the local and regional levels. Such a task poses specific challenges for Europe's second largest container port. With Hamburg's climate protection programme, key areas such as buildings, mobility, and industry are addressed that can also help to improve the city being a target for investment. This plan is to be followed through 2011 through the framework of a series of conferences

that will systematically explore questions about the economy, environmental law, and youth. Through these activities, Hamburg will underscore the relevance of cities in the international context in the implementation of climate protection worldwide. Hain further named the example of the Hamburg Haus, the city's contribution to the Expo 2010 in Shanghai. He closed by highlighting the potential of learning from each other in Sino-Chinese city partnerships.

Dr. Patrick Graichen, Head of Division of National Climate Policy in the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety, stressed in his statement the important role of international and national framework conditions. In Germany, climate protection has two principal components: First, clear targets through policy, which have recently been solidified in the energy concept of the German Federal Government. With this action, former weak points have been addressed in order for Germany to do its part to reach the 2-degree target by 2050 – in other

**»INTERNATIONAL AND
STATE FRAMEWORK SETTING
PROMOTES INNOVATION ON THE
LOCAL AND REGIONAL LEVELS«**

words, a reduction of 80 - 95 percent from 1990 emission levels. Second, the percentage of renewable energy in the electricity mix is to rise to 80 percent. Mr. Graichen stressed that this policy is not only motivated by concerns about climate change, but also intended to reduce dependence on fossil fuel imports. Other sectors, such as health care, can also expect positive effects from the policy. In order to reach these goals, one needs a wide spectrum of instruments that combine economic measures, such as emissions trading, regulatory guidelines, and efficiency specifications. It is especially in the area of incentive mechanisms that Graichen sees a great deal of potential. Additional programs for technology promotion – building renovations, for example – can support such targets. These instruments carry weight in the implementation of targets on the local and regional levels. Additionally, the German Federal Government is attempting to make necessary information and resources available in order to strengthen room for manoeuvring.



WANG LE
RESEARCHER, GUANGZHOU INSTITUTE OF ENERGY CONVERSION, CHINESE ACADEMY OF SCIENCES (CAS)



ZHANG YUE
CHIEF EXECUTIVE OFFICER, BROAD AIR CONDITIONING

SESSION III: CLEANER PRODUCTION IN CHINA AND GERMANY

Session III addressed the role of policies regarding product-integrated climate protection for the expansion of a green economy. Moreover, participants discussed further climate and energy policy fields of action. Here, it became clear that in many cases, policy has become the driving force for innovation in the environmental and resource efficiency sectors, though, in many cases, there is still room for optimization. Another contributing factor, however, has been the consumers themselves, who have high (environmental) expectations from the products they buy. For further expansion of the green economy, a large factor will be to what extent key future natural resources, such as rare earth metals, can be efficiently used and recycled.

Prof. Dr. Qiao Qi, Director of the Energy and Cleaner Production Research Base at the Chinese Research Academy of Environmental Sciences, stated that since the 1990s, the Chinese economy has provided incentives for cleaner production methods, for example in a promotion law that prescribes 180 standards for energy intensive sectors. Three different ministries are responsible for these standards. In order to improve harmonization, these ministries are now only allowed to issue common standards. New regulations for governing polluting emissions are an

»MEASURES REGARDING LIMITS ON POLLUTANTS WILL BE INTEGRAL PARTS OF THE 12TH FIVE-YEAR PLAN«

integral part of the 12th five-year plan, which is to be finalized soon. Another important development, said the researcher, is the founding of consulting companies that provide training for the implementation of cleaner production measures. Voluntary and obligatory monitoring regulations in the area are of additional importance. Further steps in the area of cleaner production, stressed Qiao, include the need to learn from international

experiences and the potential for cooperation in technical implementation. This is especially pertinent in the area of clean technologies and the transition toward fewer obligatory regulations and more market-based mechanisms.

Chen Wenming, Director of the Eco-efficiency Research Centre, highlighted the transition in the clean production sector in China. Through active priority setting of the government in this area, a growing market for related goods has been established. The government has increasingly asked for private institutional consultancy services in the sector. Entrepreneurs are another key element of the transition to a clean production sector, as they are increasingly active in the transformation of production methods. However, unaddressed problems include the adaptation of already existing laws to new environmental problems. Chen also noted that many regulations and standards accompany existing implementation measures. These regulations guide the private sector to do what is necessary to comply with the measures, but without incentives. Further, state investment and subsidy programmes for already mature technologies crowd out private investment in maturing and developing technologies.

»GOVERNMENT POLICY HAS MADE THE GROWING MARKET FOR ENVIRONMENTAL GOODS AND PRODUCTION MORE AFFORDABLE«

Prof. Dr. Miranda Schreurs, Director of the Environmental Policy Research Centre at the Freie Universität Berlin and Member of the German Advisory Council on the Environment (SRU), reflected on the state of environmental policy agendas in Germany and China, with the background of the upcoming Rio+20 conference of the United Nations in 2012. She suggested shifting the focus of international environmental policy. Despite progress in climate and energy policy in Germany and Europe, there is room for improvement in a number of areas, including expansion of the electric grid and a mobility concept capable of addressing

»THE EXPANSION OF A GREEN ECONOMY IS DEPENDENT ON FUTURE NATURAL RESOURCES SUCH AS RARE EARTH METALS«



MICHAEL GEISSLER
CHIEF EXECUTIVE OFFICER, BERLINER ENERGIEAGENTUR



DR. BENNO HAIN
COORDINATOR CLIMATE PROTECTION, URBAN DEVELOPMENT AND ENVIRONMENT AUTHORITY, HAMBURG

future demands in the transportation sector. Further, expansion of a green economy is said to be dependent on future natural resources such as rare earth metals. To prevent overexploitation of critical materials, one must be less wasteful and use must follow established targets. In closing, she mentioned that an increase in energy efficiency requires a number of new materials, like nano-materials, the use of which necessitates the development of regulatory measures.

Torsten Kallweit, Head of Environment in Corporate Sustainability for the Voith GmbH, stressed in his statement the change in the position of his clients, who now want energy savings to reduce costs and promote environmental conservation. This position is confirmed in the various branches of the company

– in the production plants in both Germany and China. Today, in many parts of the Voith Company, only projects that offer energy efficiency gains and environmental conserva-

»ECONOMIC AND ECOLOGICAL BENEFITS PROVIDE WIN-WIN SITUATIONS«

tion benefits are carried out. It is therefore all the more clear that economic and ecological benefits are not contradictions, but rather provide win-win situations. At the same time, Mr. Kallweit mentioned the fact that target setting in areas other than energy and production methods — like the regulation of natural resources — is more complicated and needs further discussion.

Peter Franz, Head of Division, Environment and Economy, Innovation, and Employment, EMAS, German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety, noted that the creation of a green economy must be a fundamental building block in German environmental policy. What started out with a comparatively reactive policy approach has been increasingly transformed through the establishment of provisions, cooperative measures, and the »polluter pays« principle into an integrated environmental policy approach. This has been accentuated by the principle of a circular economy. Today, environmental protection measures are observed in the whole production process. Approaches for improving climate

protection, natural resource efficiency, and for the protection of ecosystems are at the heart of integrating environmental conservation into a social-market economy. Such anticipatory environmental policy has been pushed forward by research and economic policy. Mr. Franz also stressed that consumers have increasingly high expectations from the products they buy, which affects the ease of repair just as much as health hazard levels and climate and environment conservation characteristics. From this perspective, one can observe pressure for further innovation that pays off for companies in the long term.

»CLIMATE PROTECTION, NATURAL RESOURCES EFFICIENCY, AND THE PROTECTION OF ECOSYSTEMS ARE CENTRAL TO THE APPROACH TO INTEGRATE ENVIRONMENTAL CONSERVATION INTO THE SOCIAL-MARKET ECONOMY«

SESSION IV: TRANSFORMATION PROCESS TOWARD A GREEN ECONOMY

The closing session offered an opportunity to discuss and summarise the challenges of moving toward a green economy, as well as potential areas of cooperation. At the centre of the discussion was the question of how innovation and pioneering success stories could be expanded in individual countries and regions. It is not only the country specific adaptation of policy instruments that poses a challenge; it is also difficult to bring about the necessary behavioural changes to implement a conservationist approach to the environment and natural resources. The relevant, necessary, socially inclusive discussion is still in its beginning stages and must be addressed in the context of Rio+20 and elsewhere.

Zhang Yue, CEO of BROAD Air Conditioning, critiqued the dis-



JOCHEN FLASBARTH
PRESIDENT, GERMAN FEDERAL ENVIRONMENTAL AGENCY



DR. PATRICK GRAICHEN
HEAD OF DIVISION, NATIONAL CLIMATE POLICY, GERMAN FEDERAL MINISTRY FOR THE ENVIRONMENT, NATURE PROTECTION AND NUCLEAR SAFETY

»THE CHINESE POPULATION IS STILL NOT SUFFICIENTLY INFORMED ABOUT THE CONSEQUENCES OF POLLUTING THE ENVIRONMENT«

cussion with an observation that the debate over the green economy has not yet led to thoughts about lifestyle. Air travel continues to grow and demand for living space continues to expand. Thus, gains in energy efficiency are cancelled out. Even the hurdles associated with the necessary reductions in green-

house gas emissions are only overcome through revolutionary innovations. Framework setting is not yet complete for accelerated innovation expansion. Most of the technologies for such a transformation already exist, but it has yet to be recognized

that energy efficiency is worth the cost. Especially in the face of the ongoing real estate boom in China, there is much to be done. An important issue, according to Zhang, is improving peoples' consciousness of the environment. The population is still not sufficiently informed about the consequences of polluting the environment.

Prof. Dr. Li Fengting, Vice Dean of the Institute for Sustainable Development at Tongji University in Shanghai, stressed that the creation of sustainable energy production is still the main challenge in the acceleration of China's transformation to a

»SUSTAINABLE ENERGY PRODUCTION IS THE CENTRAL CHALLENGE FOR THE ACCELERATION OF THE TRANSFORMATION PROCESS IN CHINA«

green economy. The transformation to a low carbon society cannot be stopped, though progress in the coastal areas in the east of the country has yet to be replicated in other regions. In pursuit of this goal, municipal and provincial governments are essential, as they

have still not reached a number of their targets from the last five-year plan. Faced with fast growth and the resource intensity of the economy, China still has a long way to go to reach the potential of green economic growth.

According to **Prof. Dr. Qi Ye**, Director of Environmental Policy in the School of Public Policy and Management at Tsinghua University, the transformation to a green economy in China is

a substantial strategic goal. The restructuring of the Chinese economy toward that of a green economy is a core element of the 12th five-year plan. It has yet to become clear, however, what this change in various sectors or parts of the country actually means. Despite great progress in the area of carbon intensity, in order to change consumption and production patterns, further regulation is necessary in the face of enormous growth.

»THE TRANSFORMATION TO A GREEN ECONOMY IS SEEN TO BE AN IMPORTANT STRATEGIC GOAL«

Dr. Christoph Beier, Chairman of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, referred to the dilemma of countries, such as China, that must contend with both the demands of an emerging, increasingly wealthy population and a global shortage of fossil fuel resources. In order to achieve growth and dematerialisation, regulations and incentives must be established in the course of international negotiations. However, these measures alone will not be sufficient. Concrete implementation processes

are necessary: In order to find political, social, and technological solutions, to exhaust creative potential, and to promote the development of market-ready technology. It is especially at this level that the GIZ has placed itself as an international

»THE INTEGRATED APPROACH OF A LOW CARBON ECONOMY BRINGS COHERENCE TO CLIMATE AND ENVIRONMENTAL PROTECTION AND COMPETITIVENESS«

»knowledge broker« as it cooperates with partners in relevant countries. A low carbon economy offers the opportunity of an integrated approach to creating coherence between climate and environmental protection, as well as scientific competitiveness. China is, in many areas, much further advanced than is generally perceived in Germany. Further reforms, however, still need to take place in order to: strengthen low carbon economic strategies, integrate the private sector in the economic transformation, and promote worldwide diffusion of knowledge and experience. In summary, international technical cooperation will only grow in importance. Here, the task is to close the gaps



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CHINESE ACADEMY OF ENVIRONMENTAL SCIENCES UNDER THE CHINESE
MINISTRY FOR ENVIRONMENTAL PROTECTION

between promoting research and the development and marketing of mature and country-appropriate technologies.

Stephan Contius, Head of Division, United Nations and Cooperation with Developing and Emerging Economies, German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety, named societal engagement, environmental legislation, and increasing innovative competitiveness as key

**»SUCCESS FACTORS OF
A GREEN ECONOMY ARE
CIVIC-SOCIAL ENGAGEMENT,
STRICT ENVIRONMENTAL
RULES AND INTERNATIONAL
INNOVATIVE COMPETITION«**

elements of success in building a green economy. Country specific solutions are needed. Simply copying strategies from others is not possible. The UN Green Economy Roadmap suggested by the EU offers an opportunity for the operationalisation of what has been, until now, a rather general discussion on

the green economy. Developing countries can identify their own important fields of action as part of the roadmap. Appropriate international frameworks are necessary to accompany the roadmap. A ›UNEP‹ upgraded to the status of a UN-Environment Organisation should therefore be equipped with effective consultation mechanisms with civil society and the private sector.

Jochen Flasbarth, President of the German Federal Environment Agency and moderator of the last panel, summed up the results of the conference by highlighting challenges of global climate protection. If one is to really reach the necessary reduction goals, one must also fundamentally change consumption and production patterns, especially in industrialised countries. Such changes will affect lifestyles around the globe. Debate is still ongoing about how necessary governance frameworks for improved climate protection must look in order to promote sustainable consumption and production patterns. The Rio+20 conference, according to Mr. Flasbarth, must be evaluated according to the extent to which it contributes to the concrete implementation of both sustainable development and the transition to low-carbon economies.



CHEN WENMING
DIRECTOR, ECO-EFFICIENCY RESEARCH CENTER (CERC)



PROF. DR. MIRANDA SCHREURS
DIRECTOR, ENVIRONMENTAL POLICY RESEARCH CENTRE, FREE UNIVERSITY OF BERLIN; MEMBER, GERMAN ADVISORY COUNCIL ON THE ENVIRONMENT (SRU)

PROGRAM

8:30

Registration

9:15

Opening

Katherina Reiche

Parliamentary Secretary of State, German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

9:25

Keynote Speech

Gao Guangsheng

Head of Department, Climate Change, National Policies, Implementation and Monitoring, National Development and Reform Commission (NDRC), People's Republic of China

9:35

Session I:

Input Statements

Chair: Alexander Carius

Co-Director, adelphi, Berlin

International Economic Cooperation for a Green Economy

Liu Xuhong

Head of Department, Foreign Capital and Overseas Investment, National Development and Reform Commission (NDRC), People's Republic of China

UN Green Economy Roadmap

Stephan Contius

Head of Division, United Nations and Cooperation with Emerging and Developing Countries, German Federal Ministry for the Environment, Nature Protection and Nuclear Safety

Sino-German Cooperation towards a Green Economy

Dr. Astrid Skala-Kuhmann

Country Director, GIZ China

10:30

Coffee Break

10:45

Session II:

Low carbon and environmentally sustainable cities and provinces — lessons learnt from China and Germany

Chair: Alexander Carius

Co-Director, adelphi, Berlin

Prof. Dr. Li Fengting

Vice Dean, UNEP-Tongji Institute of Environment for Sustainable Development, University of Tongji, Shanghai

Wang Le

Researcher, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences (CAS)

Zhang Yue

Chief Executive Officer, BROAD Air Conditioning

Michael Geißler

Chief Executive Officer, Berliner Energieagentur



TORSTEN KALLWEIT
 HEAD, ENVIRONMENT, CORPORATE SUSTAINABILITY,
 VOITH GMBH



PETER FRANZ
 HEAD OF DIVISION, ENVIRONMENT AND ECONOMY, INNOVATION AND
 EMPLOYMENT, EMAS, GERMAN FEDERAL MINISTRY FOR THE ENVIRONMENT,
 NATURE PROTECTION AND NUCLEAR SAFETY

Dr. Patrick Graichen

Head of Division, National Climate Policy, German Federal
 Ministry for the Environment, Nature Protection and Nuclear
 Safety

Dr. Benno Hain

Coordinator Climate Protection, Urban Development and
 Environment Authority, Hamburg

12:30

Lunch

13:45

Session III:

Cleaner Production in China and Germany

Chair: Prof. Dr. Jin Leshan

College of Humanities and Development Studies, China
 Agricultural University, Beijing

Prof. Dr. Qiao Qi

Chief Scientist, Energy and Cleaner Production Research
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Prof. Dr. Miranda Schreurs

Director, Environmental Policy Research Centre, Free
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 Environment (SRU)

Torsten Kallweit

Head, Environment, Corporate Sustainability, Voith GmbH

Peter Franz

Head of Division, Environment and Economy, Innovation
 and Employment, EMAS, German Federal Ministry for the
 Environment, Nature Protection and Nuclear Safety

15:30

Coffee Break

16:00

Session IV:

Transformation process towards a Green Economy

Chair: Jochen Flasbarth

President, German Federal Environmental Agency

Zhang Yue

Chief Executive Officer, BROAD Air Conditioning

Prof. Dr. Li Fengting

Vice Dean, UNEP-Tongji Institute of Environment for
 Sustainable Development, University of Tongji, Shanghai

Prof. Dr. Qi Ye

Director, Environmental Policy, School of Public Policy and
 Management, Tsinghua University

Dr. Christoph Beier

Chairman, Deutsche Gesellschaft für Internationale
 Zusammenarbeit (GIZ) GmbH

Stephan Contius

Head of Division, United Nations and Cooperation with
 Emerging and Developing Countries, German Federal Ministry
 for the Environment, Nature Protection and Nuclear Safety

18:30

Conference Dinner



PROF. DR. LI FENGTING
 VICE DEAN, UNEP-TONGJI INSTITUTE OF ENVIRONMENT FOR SUSTAINABLE
 DEVELOPMENT, UNIVERSITY OF TONGJI, SHANGHAI

SPEAKERS



Dr. Christoph Beier
 is Chairman of the Deutsche
 Gesellschaft für Internationale
 Zusammenarbeit (GIZ) GmbH.



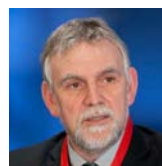
Alexander Carius
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Jochen Flasbarth
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 Environmental Agency (UBA).



Peter Franz
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 EMAS, of the German Federal Ministry for
 the Environment, Nature Conservation,
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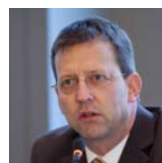
Gao Guangsheng
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 Environment, Nature Conservation,
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 and Environment Authority of the
 City of Hamburg.



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is Head for Environment in the Corporate Sustainability Department of Voith GmbH.



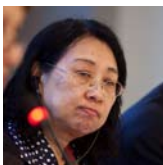
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