

Infrastructure in Cities

Infrastructure is essential for cities to make them run in an efficient way. Decisions in infrastructure projects have long-term consequences – road grids exist for more than hundreds of years; power plants or grid infrastructure have long life times and result in long-term maintenance investment. In fast growing cities the decision makers have to face many constraints – low budgets, often insufficient, old and poorly maintained infrastructure. The requirement of basic infrastructure for informal settlements on one hand and the provision of reliable infrastructure for new industry and commercial districts on the other hand as well as infrastructure for new residential settlements are representing major planning tasks.

The implementation of new decentralized solutions e.g. on neighbourhood level to provide energy in decentralised small scale production units by using renewable energy sources or the reuse of water in cascading cycles calls for new integrated concepts in spatial urban planning. Integrated approaches are complex so is their assessment with regard of sustainable indicators. Researchers can help to provide information and assist the political decision makers to evaluate new technical solutions for the local conditions by using models and scenario techniques to illustrate long-term consequences with regard to selected indicators.

The City of Hyderabad is a perfect example for a fast growing Indian Megacity. IT technology, pharmaceutical industry and biotech sectors are growing and attracting high qualified people – on the other hand the rural migration process brings each day hundreds of poor people into the city's slum areas and informal settlements. To provide adequate, reliable infrastructure for all inhabitants is a big challenge for the city administration bodies. Money is short, but if the infrastructure is not in place and only poorly maintained, the city can lose the attractiveness for further investors.



<http://www.shakti.uni-karlsruhe.de/>

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SHAKTI

Sustainable Holistic Approach & Know-how Tailored to India



German – Indian Workshop:
“Integration of Sustainable Infrastructure
in Spatial Urban Planning
for future Megacities in India”

Karlsruhe, October 09th - 13th 2006



Monday 9. October

- 9:30** Opening, Dr. Bärbel Schwaiger, EIFER Karlsruhe
Welcome
Prof. Dr. Norbert Henze, Vice President,
University of Karlsruhe
Dr. Frédéric Baron, Director, EIFER Karlsruhe
- 10:00** Emerging Megacities A Research Initiative from the German Federal Ministry for Education and Research (BMBF)
Gregor Laumann, PJ DLR, Project Managing Agency on behalf of BMBF
- 10:15** From Research to Action - Implementing Research Results - the GTZ Contribution
Claudia Gibis, GTZ-Business Area German Public Sector Clients, Berlin
- 10:30** Coffee Break
- 11:00** Sustainability and Infrastructure - Introduction to the workshop
Dr. Bärbel Schwaiger, EIFER Karlsruhe
- 11:30** Review of spatial metamorphosis of Hyderabad
Prof. Dr. Padmavathi Pervar, School of Planning and Architecture, JNTU
- 12:00** Constraints and Problems for Better Traffic Management in Hyderabad City
Dr. P. R. Bhanumurthy, JNT University College of Engineering; Center for Transportation Engineering
- 12:30** Sustainable resource management in the urban development
Subba Rao, Center of Resource Education
- 13:00** Lunch Break
- 14:00** Spatial Planning for the Metropolitan Region Frankfurt/Rhin-Main: Institutional Framework and Major Tasks
Dipl.-Ing. Peter Kreis, Frankfurt/ Rhin-Main Conurbation Planning Association
- 14:30** Sustainable comprehensive urban planning The Stuttgart-example
Dipl.-Ing. Arch. Albrecht Klenk, City Planning Office, State Capital Stuttgart
- 15:10** Coffee Break
- 15:30** Risk habitat Megacity - Strategies for Sustainable Development in Megacities and Urban Agglomerations
Dr. Helmut Lehn, ITAS, Helmholtz Research Centre Karlsruhe
- 16:00** South Africa: ENERKEY
Dr. Ludger Eltrop, Institute of Energy Economics and the Rational Use of Energy, University of Stuttgart
- 16:30** China - Ürümqi: Dryland Mega-City Development – Managing Interconnected Sensitive Cycles
Prof. Dr. Bernhard Eitel, University of Heidelberg
- 17:00** Discussion and Closing

THURSDAY 10. October

- 9:00** Using protection zones to secure drinking water resources in Karlsruhe
Dipl.-Geol. Dirk Kühlers, Stadtwerke Karlsruhe, Public Utility Company Karlsruhe
- 9:30** Waste Management and Environmental Concepts in Karlsruhe
Dipl.-Ing. Peter Blank, Director, City of Karlsruhe
- 10:00** Site Visit, Deponie East, Karlsruhe
- 12:00** Reception, City of Karlsruhe
Haus Solm, Bismarckstr.24
- 13:00** Lunch Break
- 14:00** **Working Session I - Neighbourhood Metabolism**

Introduction: Dr. Bärbel Schwaiger, EIFER
Neighbourhood Structures - the JNTU students project with Prof. Ravi Anand
Prof. Alex Wall, Dipl.-Ing. Peter Gotsch
Balancing urban water and solute fluxes for sustainable groundwater management in Hyderabad - Dr. Leif Wolf

Working Groups
- 15:30** Coffee Break
- 15:45** **Working Session II – The challenge of Integrated Infrastructure**

Opportunities and Constraints

Working Groups

Wednesday 11. October

- 9:00** ENBW - the Company and its services
Dr. Joachim Manns, Technology and Innovation Projects
Energie Baden-Württemberg AG - ENBW
- 9:30** Introduction SHAKTI Project
Dr. Bärbel Schwaiger, EIFER Karlsruhe
- 9:45** New technologies for future challenges
Dr. Wolfram Münch,
Research, Development and Demonstration ENBW
- 10:30** Coffee break
- 11:00** ENBW EnyCity – Energy City of Tomorrow
An innovative concept for a sustainable energy supply of urban areas
Dr. Joachim Manns,
Technology and Innovation Projects, ENBW
- 11:45** Restructuring the Built Environment in Cities - Steps towards Urban Sustainability in Karlsruhe
Dr. Reinhard Jank, Volkswohnung Karlsruhe
- 12:30** Lunch Break

14:00 Working Session III – Traffic and Public Transport

- Application of models in transport planning
Dr.-Ing. Thomas Schwerdtfeger,
PTV - traffic mobility logistics - AG, Karlsruhe
- Traffic Count Management
Dipl.-Ing. Sebastian Sielemann
- Status of the Pilot Study
Dr. S. Nagabushana Rao; Engineering Staff College of India
- Working Groups
- 16:00** Coffee Break
- 16:30** **Working Session IV – Energy**
Energy modelling for future planning and monitoring
Dipl. Ing. Gilles Poyac, EIFER Karlsruhe
- Working Groups

Thursday 12. October

- 09:00** Transfer to the City of Freiburg
- 10:30** "Sustainable Model District Vauban"
Presentation & Guided Tour
Dipl. Ing. Thomas Fabian, City of Freiburg
- 12:30** Lunch Break
- 14:00** ICLEI - Local Governments for Sustainability, European Secretariat
Project Presentations
- 16:00** Reception City of Freiburg
Mr Salomon, Mayor of Freiburg
- 17:00** Walk through Freiburg City Center, Transfer to Karlsruhe

Friday 13. October

- 09:00** Verkehrsbetriebe AVG (Municipal Transport Services)
Welcome
Dr. Walter Casazza, Director AVG
The Public Transport System in the Region of Karlsruhe
Integrated ticketing and Computer based traffic organisation system
Dr. Zimmermann, Public Relations AVG
- 10:00** Tour with the 2 systems train on light rail and train track system to the systems change station Bretten
- 12:00** Lunch in the Casino
- 13:30** Start to Closing Session in Bad Frauenalb, Black Forest
- 18:00** Dinner
- 20:00** Transfer to Karlsruhe