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# Governing climate change in India and Europe – opportunity structures of multi-level governance

Presentation for:

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# FFU - Teaching

Since 2008: German-Indian Sustainability and Climate Change Dialogue / Student Exchange with India (DAAD, Erasmus plus, FU-PROMOS)

Selected topics of the study stays:

Securitisation of climate change in India

Finance structures of fossil fuel projects in India

Renewable energy policies in Germany and the EU



## Indian-European Multi-Level Climate Governance Research Network



### About

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## About

The transition towards a low carbon economy is one of the key challenges for mankind in the 21<sup>st</sup> century. It is crucial that climate change is kept at manageable limits. At the same time, the realization of a low-carbon society offers enormous economic potential.

Low carbon transition processes are largely driven by policies and political programmes developed by multiple actors at various levels of governance, from the local level up through the supra- and international levels. Our Indian-European research network was developed in order to provide for a better understanding of emerging forms of multi-level climate governance in India and Europe. The network aims to shed light onto the question of whether - and how - multi-level climate governance structures in both countries yield pathways for effective low

### NEWS

[Download the Journal of Integrative Environmental Sciences' free virtual ...](#)

Feb 03, 2016

[New article on Climate Action in Indian Cities](#)

Jan 19, 2016

[Two new joint articles about Multi-Level Governance now available online](#)

Nov 03, 2015

## Multi-level governance: empirical trends

Ceding of power to supranational organizations  
(Europeanization) (Hooghe and Marks)

Political decentralization in both developing and old  
industrialized countries(Hooghe and Marks)

Reduction of the size of government and shift to new  
forms of governance

Types of problems cause increasing interdependencies  
between policy levels: *climate change*

- Solve a public problem (common not private good)
- involvement of public and private collective actors
- Involvement of general-purpose or functional jurisdictions (e.g. joint board) that enjoy some degree of autonomy within a common governance arrangement
- Processes (political negotiations, coalition building, lobbying, persuasion...)

(Zürn et al. 2010)

Epoch 1 thinking:

Hierarchical *government* top-down approach

Epoch 2 thinking:

Decentralized approach, subnational states and local levels constitute the primary loci of *governance*

Epoch 3 thinking:

Coping with interdependencies and policy overlap through multi-level governance?

Betsill & Rabe 2009: 2002

- Multi-level reinforcement (for EU context: Schreurs Tiberghien 2007, 2010),
- Offer multiple access points for leadership: pioneering member states (for EU context: Andersen, Liefferink 1997), supra-national actors,
- International comparative research: facilitate policy experimentation and diffusion of best practices
- Cross-sectoral and multi-actor structure provides additional opportunities to address a broad variety of co-benefits (Jänicke forthcoming)



Do India's states experiment with initiatives driven by regional context and requirements?

Is the scale and scope of the proposed action either ambitious or cautiously incremental?

Co-benefits: Do India's states climate action plans combine renewable energy policy objectives with the generation of desired effects in other policy areas /sectors simultaneously?





# India's federal states



59,2% of the population live on less than 2,00 \$ per day  
(World Bank 2014)

300 million people no access to electricity

India represents 17% of the world's population/ produces 6%  
of worldwide CO2 emissions

70 % of CO2 generated in the energy sector

India will likely overtake China in the next decade “as the  
primary source of growth in global energy demand”  
(Bloomberg 2015 )

de-carbonization: India's energy emissions per GDP higher  
than that of the EU but lower than that of the US

# Multi-level climate policy in India

## Climate Convention, BASIC Countries, Bi-lateral Cooperation

Union Government: *NAPCC 2008: 15% of the total energy from renewable energy sources by 2020.*

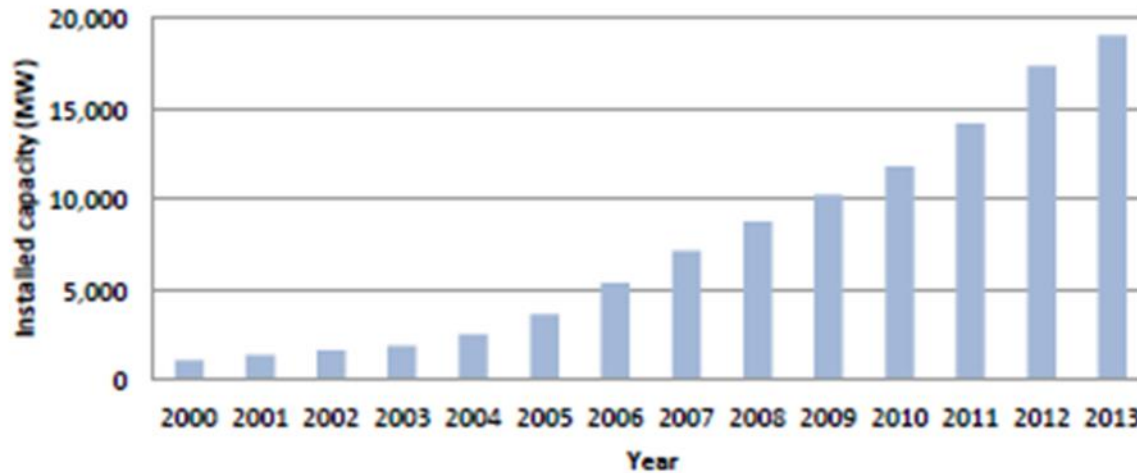
*INDC 2015 : 40% share of non-fossil fuels in the installed electricity mix by 2030 , 100 GW Solar capacity by 2030*

29 State governments:  
Climate action plans  
(SAPCC) 19 plans published  
in 2015

Panchayats      4000 cities

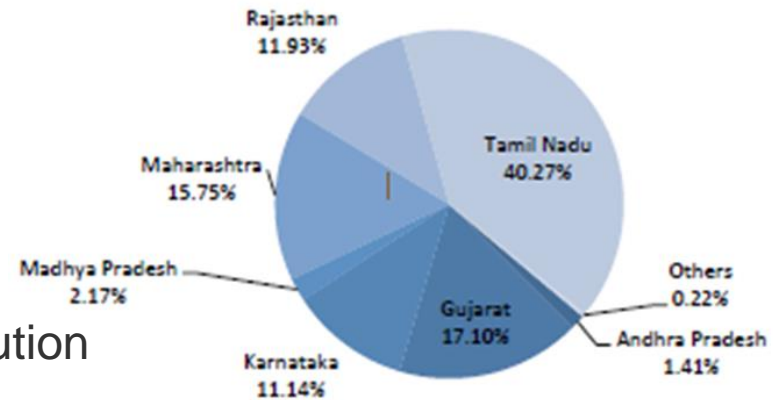
Private a. public actors

# India



Installed wind power capacity MW

State wise RE distribution



Sources: GSI Research Report 3/2014 (GWEC (2012b); Indian Wind Energy Association (InWEA) (2012)).

**Table 1.** Renewable energy in states in India: resource profile, applications and policy framework.

State	RE resource focus in SAPCC	Specific RE application identified in SAPCC	State level RE policy framework/Policy directives
Chhattisgarh	Solar, wind, waste to energy	Irrigation/Energisation of pump sets; village electrification through DDG	Biogas policy 2014–15 Chhattisgarh solar policy 2012 Policy directives on allotments of sites and incentives to small hydel projects 2012 Wind energy policy 2002
Haryana	Solar, wind, biomass, small hydro, waste to energy	Irrigation/Energisation of pump sets	Policy for promoting generation of electricity through renewable energy sources 2005 Haryana solar power policy 2005
Jharkhand	Solar, biomass, small hydro, waste to energy	Waste to energy	Jharkhand energy policy 2012 Jharkhand solar policy 2013
Karnataka	Solar, wind, biomass, small hydro, waste to energy	Irrigation/Energisation of pump sets; waste to energy	Karnataka solar policy 2014–2021 Karnataka renewable energy policy, 2009–2014
Kerala	Solar, wind, biomass, waste to energy	Irrigation/Energisation of pump sets; waste to energy; village electrification through DDG	Kerala solar energy policy 2013 Wind energy policy 2004 Renewable energy policy 2002
Madhya Pradesh	Solar, wind, biomass	Village electrification through DDG	Policy for promotion of solar power based projects in Madhya Pradesh 2012 Wind energy policy 2012 (amended in 2013) Bio

Jørgensen, Mishra, Sarangi 2015

# Co-benefits: renewable energy in non-energy sectors

**Table 2.** Cross sector spread of renewable energy interventions in SAPCCs.

State	Agriculture, forestry, fisheries and coastal area management	Industrial sector	Urban development	Transport	Energy	Tourism	Sustainable habitat
Chhattisgarh	1	–	3	2	6	–	–
Haryana	–	–	–	–	20	–	–
Jharkhand	3	2	–	–	6	–	–
Karnataka	2	–	1	–	2	–	–
Kerala	6	–	2	–	14	1	–
Madhya Pradesh	3	2	–	–	15	–	–
Odisha	–	–	–	2	7	–	–
Tamil Nadu	3	–	–	–	1	–	10
West Bengal	2	1	1	–	–	–	–

Jørgensen, Mishra, Sarangi 2015

- Deployment of wind power and solar energy: variation of state policies and outcomes, states experiment with individual approaches tailored to regional specifics
- Variation in subnational Climate Action Plans – scope of proposed action cautiously incremental
- States take advantage of co-benefits related to economic and development assets

(Jørgensen, Mishra, Sarangi 2015)



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