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# Water Regimes Questioned from the “Global South”: Agents, Practices and Knowledge

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**Centre for Policy Research,**  
**New Delhi, India,**  
**14-16 January 2016**

Workshop organised by:  
Centre for Policy Research,  
Centre de Sciences Humaines,  
UMI iGLOBES,  
University of Arizona,  
ANR Blue Grass,  
French Institute of Pondicherry,  
ANR Engind,

With the support of the Indo French  
Water Network (Embassy of France)

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## **WATER REGIMES QUESTIONED FROM THE “GLOBAL SOUTH”: AGENTS, PRACTICES AND KNOWLEDGE**

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During the 20<sup>th</sup> century, water distribution and treatment services (as well as gas, electricity, transportation and telecommunications services) emerged as a socio-technical system, vital for people living in towns and large metropolises. Deeply embedded in the materiality of social life and the environment, the system is closely linked to a physical geography (a hydric resource, pluviometry, terrain, ecosystem) that gives rise to economic factors (fixed assets) and legal institutions (norms, laws, contracts); it also corresponds to an institutional system that manages this resource in a specific territory occupied by social groups, with their conflicting interests; it requires specific skills in terms of administration and engineering and most of the time these are defined by the administrative services responsible for the management and construction of water infrastructures.

There is hence no doubt that water management constitutes an area of expertise in its own right, an area of study and specific action that tends to blur the distinctions between science, action and expertise. A study of the water sector in fact engenders a vast field of applied research, where public teaching institutions, research and development services within private enterprise, as well as management consultancy companies specialising in natural resources meet, exchange ideas, best practices and evaluation techniques – which all contribute to creating a consensus that impacts the choices of political decision makers. It is within the context of this *doxa* that the uniform and universal model of distribution and treatment of urban potable water was imposed. This model is often presented as the best, or even the only distribution model capable of implementing the objective of “water for everyone” in terms of quality as well as equal access, it is seen as a model capable of providing a homogenous service to every consumer. Within this “supply network” model, which is supposed to constitute a catalyst for spatial integration, we can identify several fundamental characteristics: an operator is associated with a territory, it presupposes the existence of a system of interconnected equipment and implies centralised and planned management.

While from the 1990's onwards the water domain was the object of controversies and social struggles against the “privatisation” of water services, or the target of criticism regarding its hydro-bureaucracy and hydraulic mission, now the pivotal problem the question of water and research on this subject have to face seems to be the relevance of this model that favours a constant extension of universal services. In many places projects have been challenged on the basis of their economic, social or environmental impacts. Water engineers have been challenged internally and externally. In the urban areas, the shift in focus was also largely induced by the current trend towards increasing urban sprawl and the growing scarcity of natural resources. Some of the other factors responsible for the questioning of the accepted model are: on the one hand, the model's failure to provide a universal service, and particularly its incapacity to overcome the obstacles to creating an infrastructure in peri-urban and rural areas; on the other hand, the problem of “water stress” prevalent in certain regions like the West of the United States, the high plateaus in the Andes, the Brazilian sertão, North Africa, the Arab peninsula, certain regions in India, Central Asia or Northern China. It in fact seems to be difficult to create a single, homogenous network in territories that are increasingly spread out and densely populated, particularly given the evolution of the equation between the availability of resources and the demand for services. Hence some voices are contesting this

*doxa* and putting forward proposals for alternative or hybrid models: these are essentially based on a technical and administrative decentralisation of services, a greater symbiosis between the socio-technical systems (treatment and energy production, for example) and the creation of a multiplicity of institutions to replace a monopolistic organisation.

The main hypothesis of this workshop is that it is impossible to understand water policies without looking at those who implement policies and contribute to producing the *doxa* on water and its uniform model, especially the engineers that contribute to defining their knowledge and practices as state capacities. The definition of skills and professional practices in these administrative services affect not only the types of infrastructures built for transporting water, but also the implementation of administrative practices within the services: contracts, areas in which the operators intervene, infrastructure maintenance, price fixing, etc. The focus would hence be on State corps of engineers as varied as the Army Corps of Engineers in the United States, the Corps of Bridges, Waters and Forests (Corps des Ponts, des Eaux et Forêts) in France, or the Public Works Department/Water Board, in a number of States in India, who from the 19<sup>th</sup> century onwards, established models for technical systems that served to carry water to towns that wanted to “modernise”. The case of the United Kingdom reveals another configuration, which has less to do with State expertise and where engineers have a different type of influence. As for the case of India, it exhibits a colonial model marked by relatively early intervention by the colonial powers, whose first large scale municipal works projects began with the water supply. While the works were managed largely by engineers employed by the administration, the private sector – essentially British companies - was involved to quite a large extent, through a system of contracts. The colonial authorities’ control over the water supply system did not totally exclude indigenous initiatives, which sometimes valorised the use of non-British technology. Finally, China and Brazil present configurations which are essential to an understanding of the new management styles, given the importance on the one hand of mega-projects, implemented through hydric policies adapted to the respective phenomena of urban growth, and on the other hand, given the role these countries have played in the invention of alternative management models, better adapted to the diversity of local partnerships.

A study of local and/or national configurations within which this *doxa* developed historically, seems all the more necessary as it explains to a large extent the policies followed, the types of service management and the reforms which are, or are not carried out. These processes that serve to produce the *doxa*, are amongst the temporalities that vary according to the geographical regions studied and involve different categories of producers whose qualities and relations of interdependence are yet to be studied. It hence seems appropriate to question the administrative categories (principles of action as well as principles of vision and division in the social world) implemented by water policies and particularly their reorientation, since the 1970’s, with the constitution of a strong “global water community” that has been trying to define easily exportable and transposable management models. This contestation has become all the more relevant since the establishment of world water forums and the internationalisation of companies within this sector. We must therefore study the extent to which this *doxa* is imported and adapted to national and local contexts where distribution contracts are implemented and identify how these processes of importation are structured in a variable manner, depending on the regions studied, by specific national professions that are perpetuated and spread through the prevailing state corps of engineers.

Beyond analyses that seek to elucidate the constitution of national models for the distribution of water services, and the national or local logic behind the import of these models, we should also focus on the specifically transnational aspect of the process through which this *doxa* is produced and reproduced. On the one hand because engineering skills are not developed in an isolated manner, but in spaces of international exchange and reciprocal

appropriation between countries that took shape during the 19<sup>th</sup> century. On the other hand, because this universal service distribution model has been largely shaped by national colonial companies, and hence it would be necessary to introduce a comparative perspective “South/North” that can take into account the manner in which different socio-technical systems were integrated into projects for modernisation and universalization that were essentially in the service of colonial domination.

A second hypothesis that should be explored during this workshop is that the challenge to the uniform/universal model of water management, with the political ambiguities it contains (particularly questioning the egalitarian ideal implicit in the idea of “water for everyone”), has emerged mainly in countries in the “South”, not only because they have a clearer perception of the difficulties the “old model” has to face, but also because of the reorganization of the systems that produce State expertise and their position within the field of power. We can thus put forward the hypothesis that the internationalisation of water policies represents an opportunity for certain agents belonging to these senior administrative and civil services, to shift out of the discipline of engineering by integrating leadership into their training and within their specific professional jurisdictions. Recent studies, carried out in different cultural and political contexts, clarify transformations in the role of water professionals and dimensions of the work that are non technical. They regard water professionals as policy entrepreneurs, intermediaries, boundary spanners or stewards. From this perspective, it would seem interesting to explore, for example, the manner in which historically, the “environment and management” courses that were part of Civil Engineering Departments at the major Indian engineering schools were originally set up; or based on specific cases, to study the positions of different categories of experts and engineers involved in the struggle for the preservation or adaptation of the dominant model – adopting, on the fringes, alternative self management models (cooperatives, small territorial systems, etc.) or more tailor made techniques of recycling and treatment (recycling outside the network, etc.).

### **Aims of the workshop:**

Essentially it would allow a first exchange, with a view to a publication, between the researchers specialising in water and working on its agents (engineers, lawyers, etc.), knowledge and practices, particularly interested in an analysis of the socio-technical systems that were established to transform a natural resource into a service in the region under study.

This wide perspective would include different approaches:

- Approaches focusing on the engineering doxa in the water field. Hydric policies must respond to the socio-environmental crisis the water services have to face, as well as on the interdependence and linkages that connect the producers of the *doxa* to each other and to the protagonists of public action. We could examine this notion of a hydric policy that underpins the idea of a holistic approach to the problems (resources, services and interactions between rural and urban spaces), which the dominant sectorial position (urban water, irrigation) seems, on the contrary, to deny. These studies will look at the effects of reforms on the socio-technical transition of hydraulic infrastructures and the management transformations they bring about. In this context, we will assess the transformation of service (co)production systems, by identifying the circulation of, resistances to and reappropriation of norms and practices as well as the new territories that these transformations contribute to creating. We will pay particular attention to the emergence of alternative technical expertise and the creation of a new post-colonial reference system for engineering as well as the places where this expertise (or counter expertise) is developed, particularly outside the State sphere (NGO's etc).
- Socio-historical studies dealing with engineers specialising in hydraulic engineering and who are involved in the development, defence or the surpassing of the uniform and universal

model. For each historical sequence studied, these presentations will attempt to situate the engineers involved, in terms of their training, the position occupied within the professional group as well as in a space where, depending on the periods, we see the intervention of private firms (foreign or national), state and pan state structure, the sites of scientific production, as well as NGOs, institutes responsible for administering international funds, and lastly the networks of activists mobilised around the stakes involved in water policy. From a socio-historical perspective, attempting to grasp the major issues that influenced the training of these engineers presumes, particularly for the colonial period, widening the analysis to include questions pertaining to models that served for water management in rural zones and the conditions under which they were transformed into urban services.

- New water regimes will also be examined from a political and legal angle, paying particular attention to the producers of policies and norms whether public or private. In doing so, it will contrast a variety of perspectives from the right to water as a nascent human right to the liberalization of water services and the global trade and investment regulatory developments and the implications of the latest at the local, national and global levels from policies to rules and dispute settlement.

A second aim would be to create a basis for the *formulation of an international and comparative research project*, which would include a relevant sample of countries, depending on the on-going research and our contacts in these countries. The case of France and the United States seem inevitable, on the one hand because of the fundamental role the major State corps of engineers in these countries play in the establishment of hydric policies and on the spread of their management models internationally. On the other hand, because their domination is perturbed today, due to the decentralisation movement in France or/and as a result of criticism from environmentalists.

### **Scientific Committee**

Vanessa Caru (CEIAS, ENGIND)

Leïla Choukroune (CSH Delhi),

Karen Coelho (Madras Institute of Development Studies)

Roland Lardinois (CEIAS, ENGIND)

Dominique Lorrain (CNRS)

Gilles Massardier (CIRAD)

François Molle (IRD and International Water Management Institute)

Jochen Monstadt (Universität de Darmstadt)

Bob Varady (Udall Center, University of Arizona)

### **Organizing Committee**

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Odile Henry (CSH Delhi),

Franck Poupeau (iGLOBES),

Audrey Richard-Ferroudji (IFP/Pondicherry)

Marie-Hélène Zérah (IRD/CPR Delhi)

**Date and Venue:** Centre for Policy Research, New Delhi, India, 14-16 January 2016.

**WORKSHOP PROGRAMME**  
**(this version could be modified)**

**14<sup>th</sup> January 2016**

**9:30 am – 10 am: Introductory Session**

**Introduction to the workshop:**

Shubhagato Dasgupta (CPR), Leila Choukroune (Director, CSH), Vanessa Caru (Coordinator, ANR Engind) and Jennifer Clark (Attaché of science and technology French Embassy in India – Bangalore)

**Rationale and Objectives**

Franck Poupeau

**10: am – 10:15 am: Tea Break**

**10.15 am – 12.45 am: Session I. Water Regimes transformations**

Chair: Marie-Hélène Zerah (CESSMA, IRD): A literature review: Placing literature on urban water supply in India in a comparative perspective

Discussant: Shubaghato Dasgupta CPR

Kyle Onda and Meenu Tewari (The University of North Carolina at Chapel Hill): *The Production of “24x7” Water: Changing Water Regimes in Amravati and Nagpur*

Bérénice Girard (EHESS CEIAS): *Management of Ganga basin*

Odile Henry (CSH, ANR Engind), Shankare Gowda (CPR), Rémi de Bercegol (University of Darmstadt): *Technical sanitation regimes: a case study of Delhi’s contemporary sewers*

**12.45 – 14:00 am: Lunch**

**14.00- 16.00: Session II. Challenging the Dominant Doxa**

Chair: Jochen Monstadt, TU Darmstadt – *Topic of literature review to be precised*

Discussant: to be confirmed

Elizabeth Kanini Wamuchiru, Jethron Aymba Akallah et Rémi de Bercegol (TU Darmstadt) : *(Re)producing engineering: retracing Nairobi’s water supply practices*

Matthew Birkinshaw (London School of Economics): *Water governance in unauthorised Delhi: reforming complex urban water supply systems*

Amael Marchand (LATTS): *Activist for the right to water faced to engineers of the federal bureaucracy. Production and reproduction of water public policies in Mexico.*

**15<sup>th</sup> January 2016**

**9:30 am – 10 am: Note from a field project in a Mumbai Slum**

Seema Redkar, Ex-Officer On Special Duty at Municipal Corporation Of Greater Mumbai,  
Voluntary Adviser as Community Mobilizer

**10: 00 am – 10:15 am: Tea Break**

**10:15 am – 12:15 : Session III. New Skills for New Issues**

Chair and introduction: Audrey Richard (French Institute of Pondicherry) – A literature review on water Professional

Discussant: Roland Lardinois (CNRS, CEIAS, ANR Engind)

Gaia Lassaube (Centre Emile Durkheim, Bordeaux): *Acting as a hydro geologist: a France/India comparative study of a changing profession*

Jean-Philippe Venot (IRD, UMR G-Eau): *Towards a new working culture? The emergence of social-entrepreneurs in irrigation Sub-Saharan Africa*

Denis Salles and Vincent Marquet (IRSTEA- Bordeaux): *Climate change forecasting expertise: new competences required for water management in global change context?*

**12.00 – 14.00: Lunch**

**14:00 – 16:30: Session VI. Reconfiguration of « Hydrocracies »**

Chair: to be confirmed

Discussant: Vanessa Caru, (CNRS, CEIAS, ANR Engind)

Magalie Bourblanc, Pierre-Louis Mayaux, (CIRAD, UMR G-Eau, Montpellier, France): *Comparing 'Hydrocracies' in Morocco and South Africa: Water Reform and Bureaucratic Restructuring in a neo-liberal context*

Sylvain Barone, Claire Dedieu and Laetitia Guérin-Schneider (Irstea - National Research Institute of Science and Technology for Environment and Agriculture): *The Removal of Public Engineering in the French Ministry of Agriculture: The Paradoxes of a Neo-Managerial Reform*

Brian O'Neill (University of Arizona): *Models and Management: Applying Sociology to the Western U.S. Water Crisis*

**14<sup>th</sup> January 2016**

**9:30 am – 11.30 am: Session V. New Models for Urban Water Management**

Chair: to be confirmed

Discussant: Karen Coelho (MIDS Madras Institute of Development Studies)

Rémi Curien (French MAEE in China): *Water regimes and economic and urban development models: the case of China*

Sachin Warghade (Tata Institute of Social Sciences): *Knowledge Monopoly and Centralized Control: The Case of Transplantation of Independent Regulatory Model in India*

Philippe Cullet (SOAS): *Fostering new water regimes: universality, decentralisation and Beyond*

**11.30am – 12.00 am: Conclusions**

Karen Coehlo (MIDS Madras Institute of Development Studies)

**12am – 12.30 am: discussion on valorisation/publication**

**12.30 – 14:00 am: Lunch**

**14.00 – 17:30 am: Session VI. Elaboration of a collaborative project**