# H U M B O L D T - U N I V E R S I T Ä T Z U B E R L I N LANDWIRTSCHAFTLICH - GÄRTNERISCHE FAKULTÄT



Department für Agrarökonomie | Fachgebiet Ressourcenökonomie | Prof. Dr. Dr. h.c. Konrad Hagedorn

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# Proposal for a Study Project (M.Sc. level)

# Title: Unwillingness to Pay for Private Water Services in the Emerging Megacity Hyderabad

## Background of the research

Many of India's cities suffer from water scarcity. Often, piped water is provided for only a few hours per day and average available water quantities are fairly below the 100 litres per capita per day recommended by the World Health Organization. In addition, water is often contaminated. In the past, it has been frequently suggested that water services can be improved by introducing private players into the water sector. Typically, it is assumed that private companies can provide better services at slightly higher water tariff rates. To evaluate the potential for such private sector involvement, scholars have repeatedly conducted cost–benefit analyses based on stated preferences methods. Survey methods such as contingent valuation (CV) are used to estimate the willingness to pay (WTP) for a depicted service improvement. However, the CV method suffers from many problems. One particular problem concerns the incorporation of zero, missing, and so-called protest responses into the statistical analysis. Despite the fact that they can make up a substantial share of the responses, many water sector CV studies do not record these responses or they do not properly enter the analysis of the WTP. In a recent paper, Yu and Abler (2010)<sup>1</sup> propose a multi-step hurdle model that allows for differentiating between the various response types. This way, their model allows for a thorough analysis when respondents are *not* willing to pay for service improvements.

# Aims of the call for research:

The student will analyze a survey that has been recently conducted in the emerging Indian megacity Hyderabad (n=500). Respondents were asked to state their WTP for water service improvements. It turned out that roughly half of the people did not state a positive WTP. Analyzing the diverse reasons behind these non-positive responses will improve our understanding of attitudes towards private sector involvement in water services. It will also allow us to derive more meaningful policy conclusions than has been the case with CV studies in the past.

## Methods

Statistical methods are used. Support in econometric modelling in STATA will be provided.

## Relationship to partners and support offered

With its "Sustainable Hyderabad" project<sup>2</sup> the Division of Resource Economics has ample expertise in the region and several PhD students and Post-Docs are working on related topics. This creates an ideal supervision situation for the student who will be assisted in all stages of the research. The supervision includes the provision of background literature, theory development, data, and support in statistical modelling. Yet, Master Students are expected to work to a great extent self-responsibly. Given sufficient quality, support for jointly publishing the results of the study will be provided.

*Prerequisites:* Excellent command of English, a strong background in quantitative methods (Master level), an interest in development and resource economics, an interest in urban water governance and South Asia, experience with statistical modelling (particularly in STATA) is desirable

Starting date: As soon as possible/according to needs of the study programme

## If you are interested, please contact:

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<sup>&</sup>lt;sup>1</sup> Yu, X. and Abler, D. (2010): Incorporating zero and missing responses into CVM with open-ended bidding: Willingness to pay for blue skies in Beijing. *Environment and Development Economics*, 15(6), 535–556.

<sup>&</sup>lt;sup>2</sup> For more information see www.sustainable-hyderabad.de.