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Capturing the Potential of Greenhouse Gas Offsets in Indian Agriculture

ACIAR Project - ADP/2010/008

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India Policy Research

- 1. Agricultural Trade Liberalisation and Domestic Market Reforms in Indian Agriculture (ADP/2002/089)

- 2. Facilitating Efficient Agricultural Markets in India: An Assessment of Competition and Regulatory Reform Requirements (ADP/2007/062)

- 3. Capturing the Potential for Greenhouse Gas Offsets in Indian Agriculture (ADP/2010/008)

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Capturing the Potential for Greenhouse Gas Offsets in Indian Agriculture

Objective 1 - Understand how national policy settings in India and Australia may be influencing agricultural emissions

Objective 2 - Assess (i) international GHG policy settings & (ii) the benefits that offsets could provide to energy and industry sectors.

Objective 3 - Assess (i) the scope for cost effective abatement within India's agricultural sector and (ii) the economy-wide impacts of an agricultural offsets policy.

Objective 4 - Explore potential market-based offset designs and incentives for the adoption of abatement practices in agriculture.

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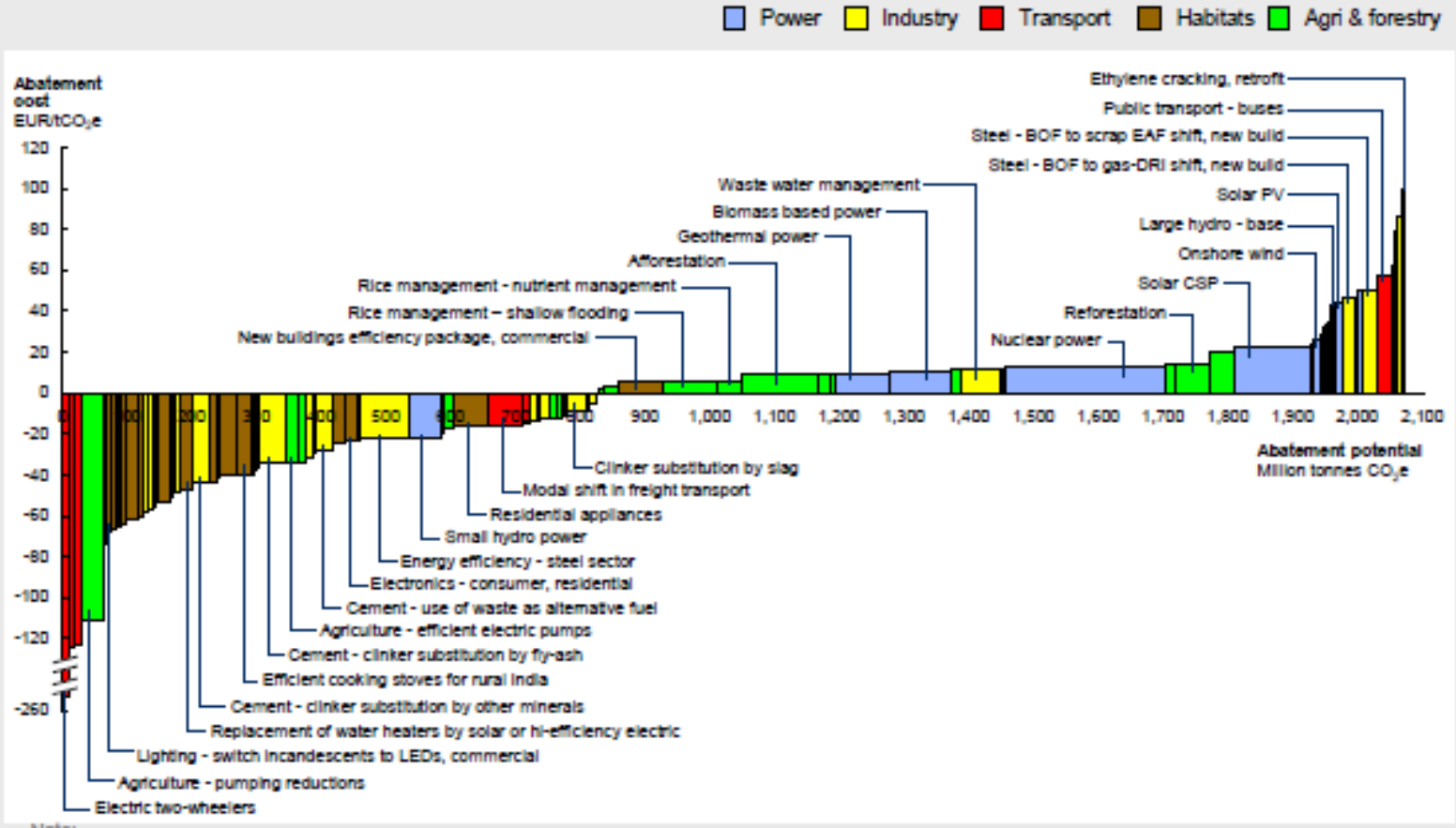
Objective 3 - Assess (i) the scope for cost effective abatement within India's agricultural sector and (ii) the economy-wide impacts of an agricultural offsets policy.

- NCAER & Peter Dixon & Maureen Rimmer - Centre of Policy Studies (COPS), Victoria University - CGE model of the Indian Economy - Economy-wide growth and GHG reductions from policy reform.
- Alex DePinto - International Food Policy Research Institute (IFPRI) - IMPACT Model - the GHG abatement potential of Indian agriculture.
- Jyoti Gujral - IDFC - India's GHG emitters - what would they be willing to pay for agricultural offsets?

Exhibit 2.1

India's abatement cost curve for 2030 (cost below EUR 100/tonne)



Note:

1 This curve highlights 2.1 billion tonnes CO_2e of potential. Additional potential below Euro 100/tonne includes reduction in technical T&D losses (190 million tonnes CO2e (mt), auxiliary consumption (~50 mt), efficiency improvement in other sectors (~200 mt), improved urban planning (~30 mt), and distributed generation using combined heat and power (CHP) (~15 mt)

2 Levers costing above EUR 100/ tonne (not included in the cost curve) have a total abatement potential of 80 mt. Important levers are public transport infrastructure (metros) (7 mt), electric vehicles and full hybrids (6 mt)

3 8% discount rate assumed for the cost curve analysis, based on benchmark yield for long-term Indian government bonds

SOURCE: McKinsey India Cost Curve model

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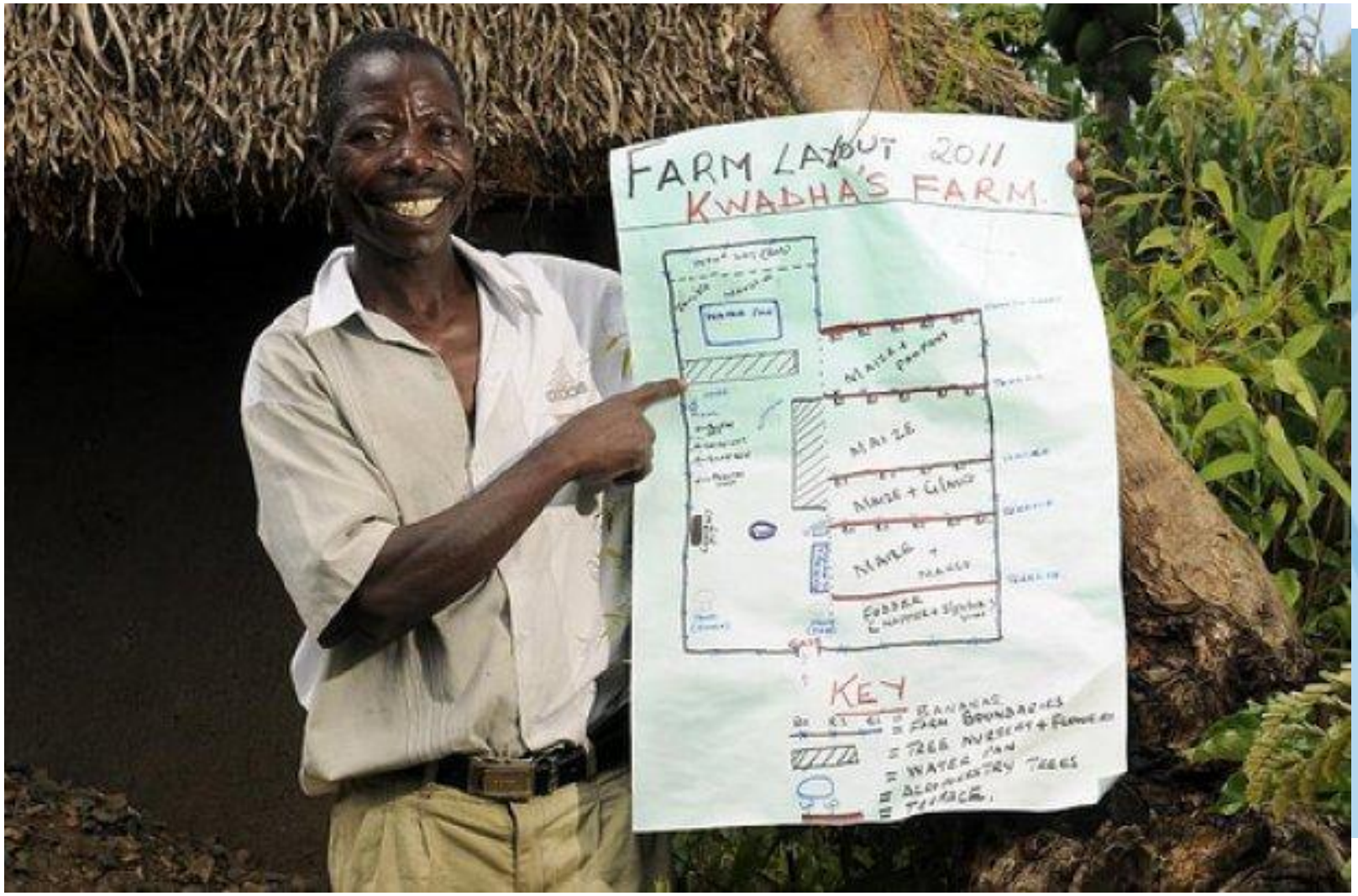

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Modelling India's Agricultural Policy Reforms

Chair: *Sisira Jayasuriya*

- CGE Modelling: An Assessment Tool for Gauging Reforms in the Indian Economy - *Peter Dixon & Maureen Rimmer,* Victoria University
- Agricultural Subsidy Reform in India - Preliminary Results: *Peter Dixon & Rajesh Chadha*

Lunch

Identifying Modelling Priorities for Indian Agriculture

Chair: *S Sivakumar,* ITC

- Economy-wide policy reform priorities and complimentary agricultural modelling scenarios: *Arvind Panagariya,* Columbia University
- Energy and Climate Modelling Imperatives in India, *Kaushik Deb,* BP
- MAC and GHG issues: *Jyoti Gujral,* IDFC

4:00pm-4:30pm **Tea**

Morning Tea

Discussion: Summary and Recommendations

Arvind Panagariya

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Assessing the Impact of Green House Gas Emission in Indian Agriculture

Chair: *Pramod Joshi,* IFPRI

- Results from Impact Model: *Alex De Pinto,* IFPRI
- IMPACT Model: Integration with CGE Model: *Peter Dixon & Rajesh Chadha*

Morning Tea

Locating Offset Opportunities in Indian Agriculture

Chair: *Scott Davenport*

- Emerging Issues in Agricultural Policy: GHG Emissions, *Ramesh Chand,* NCAP

Discussion: Summary and Recommendations

- Summing up: *Ejaz Qureshi,* ACIAR *and Scott Davenport*
- Closing Remarks: *Shekhar Shah*

Lunch

Project Steering Committee Meeting