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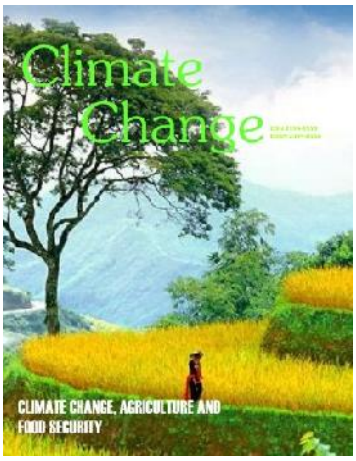
Climate Change

About the Cover



The project climate-smart villages was launched in 15 sites of West Africa, East Africa and South Asia in 2011 by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). This number was increased to 22 by 2013, with more slated for Latin America (Guatemala and Nicaragua), Central America, South-east Asia (Vietnam), South Asia (Bangladesh and Nepal). All these sites are in high-risk areas, which will likely to suffer most from a changing climate. These are also places where partners have already established vital links with local communities (Aggarwal et al, 2013). India is one of the 18 countries in the world which is using climate-smart technologies. The climate-smart villages is site specific and is not-one-size-fits-all. There is enormous scope for learning what works in one site and adapting it for others, an approach which is called as "knowledge smart". Therefore, the present study is attempted with the objectives- (i) to identify 'climate-smart' activities and options suitable for all type of households, (ii) to find out the steps taken by small holder farmers for adapting their agriculture to secure the food supply, (ii) to find the means for mitigating the emissions (Ref: Biswanath Bishoi. Climate Smart Village: An assessment of Indian initiatives. *Climate Change*, 2016, 2(5), 1-10); (Image: http://www.westheimphoto.com/).

PERSPECTIVE

Climate Smart Village: An assessment of Indian initiatives

Biswanath Bishoi

The project climate-smart villages was launched in 15 sites of West Africa, East Africa and South Asia in 2011 by the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS). This number was increased to 22 by 2013, with more slated for Latin America (Guatemala and Nicaragua), Central America, South-east Asia (Vietnam), South Asia (Bangladesh and Nepal). All these sites are in high-risk areas, which will likely to suffer most from a changing climate. These are also places where partners have already established vital links with local communities (Aggarwal et al, 2013). India is one of the 18 countries in the world which is using climate-smart technologies. The climate-smart villages is site specific and is not-one-size-fits-all. There is enormous scope for learning what works in one site and adapting it for others, an approach which is called as "knowledge smart". Therefore, the present study is attempted with the objectives- (i) to identify 'climate-smart' activities and options suitable for all type of households, (ii) to find out the steps taken by small holder farmers for adapting their agriculture to secure the food supply, (ii) to find the means for mitigating the emissions.

Climate Change, 2016, 2(5), 1-10

ANALYSIS

Climatic Shock and Health Demand-Supply Nexus in the Sundarbans Delta Region in India

Mukherjee M

Gaps in knowledge regarding how far the climatic shocks and related consequences are responsible for sub-optimal nutritional achievement and therefore what types of anti-vulnerability strategies can narrow the vulnerability to under-nutrition and poverty, and strengthen the resilience of socio-economy as a response after impacts of climate change are discussed in this paper to build sustainable adaptation strategies. The present work tried to test the hypothesis that frequent climatic shock is likely to enable health shocks through perception and practice of households in the presence of inaccessibility, inadequacy and acceptability barriers which act in the economy as chronic shocks. The work will see whether shocks can be mitigated with existing capacity alterations in a cost effective manner to break the vicious circle of poverty-malnutrition-morbidity in the

Sundarbans. Data has been collected from frequent climatic shock prone, geographically adverse deltaic and non-deltaic villages of the Sundarbans delta region of India which is characterized by abject poverty. Information from 338 households has been collected with structured questionnaire. Along with that Focus Group Discussions and In Depth Interviews are conducted at various stakeholder levels. It has been found that wide sub-optimal utilization of health and nutrition service delivery due to either poor perception or limited understanding of caregivers from demand side as well as sub-optimal service delivery and accountability on the part of the providers coupled with frequent climatic shocks demanding more care create worse being of inhabitants. Incorrect perception about vulnerable impact of healthcare expenditure during climatic shock increases the probability of destitution among families with morbid or undernourished children is another example of climate, health and resilience spiral which requires intervention to change perceptions instead of KAP and bringing success is very challenging.

Climate Change, 2016, 2(5), 11-24

COMMUNICATIONS

Knowledge Multiplication and Mass Communication for Agriculture in the Arena of Climate Change

Reddy EN

Impact of Climate Change on Agriculture:- Impact on plant physiological growth and crop production, Effect on soil and soil organic matter, Reduced crop yield and crop loss due to drought/floods, Reduced soil water availability, Erosion of top soil and sediment transport, Increased pests and diseases and spread of weeds, Increased salinization and alkalization of soils.

Climate Change, 2016, 2(5), 25-33

Women as agents of environmental change

Kinkini Dasgupta Misra

Women serve as agents of social change and development through their unique roles in the family and child care, agricultural labour, food and nutrition security, health and disaster risk reduction. The promotion of their engagement and leadership is critical to addressing climate change in equitable, healthy, and sustainable ways. Integrating women's empowerment as well as food and nutrition security and health in adaptation strategies is urgently needed to ensure the well-being of communities under a changing climate. Based on the recognition that empowering women is not only a matter of equity and justice, but also a key pathway to achieving healthy, resilient and sustainable communities and societies.

Climate Change, 2016, 2(5), 34-43

Technology Demonstration and Capacity Building on Climate Resilient Agriculture: NICRA Experiences

Maheswari M

Village Climate Risk Management Committee:- Comprises of 12-20 members, represent the community; Elected President, Secretary and Treasurer; Manages the custom hiring centre for farm machinery; Under takes repair, maintenance of equipment; Mobilizes fellow farmers for capacity building programs; Collectively decide the implementation of interventions & pass appropriate resolutions; Operates bank account, deposits include hiring charges and farmers share towards critical inputs like seed, breeds & other inputs.

Climate Change, 2016, 2(5), 44-58

SPEECHES

Knowledge multiplication and mass communication for agriculture in arena of climate change

Singh BP

The NCCSD is aware of the involvement of Zonal Project Directorates (ZPDs) through the Technology Demonstration Component (TDC) under the National Initiative on Climate Resilient Agriculture, the knowledge missions of the Department of Science and technology, and other mutually reinforcing missions through the Ministry of Environment, Forests and Climate Change, Government of India, the initiatives of the International Crop Research Institute in the Semi Arid Tropics, the National Bank for Agriculture and Rural Development, the South Asian Forum for Environment, the International Institute for Environment and Development, the Climate and Development Knowledge Network, the Watershed Organization Trust, the Shroff Foundation, the MS Swaminathan Research Foundation etc to mention a few. These institutions and several others are delivering invaluable inputs for collective benefits.

Climate Change, 2016, 2(5), 59-62

Need for diversity in action

Rajan YS

My main appeal to all of you here and others who may come to know about NCCSD actions is to keep up this action oriented approach relevant to India and use diversity in action as the mantra and the guide. You may add used water recycling and reuse, as an important practice. If one chases renewable energy alone or reduction of coal plants alone, countries like India cannot easily get electric power. When India is promising emission intensity reduction it can use a more holistic approach .All power generating stations or other manufacturing units which emit CO2, may not only try to reduce emissions through engineering technologies but also through large scale biomass growth around them as demonstrated by NCCSD and its partners. Engineering helps reduction in generation of CO2; biomass agriculture practices help absorb generation CO2 in the atmosphere. We have thus two reductions. I hope that our experts and academies, instead of blindly following the formulas given by the developed countries, do such holistic calculations which are real.

Climate Change, 2016, 2(5), 63-68

PROCEEDINGS

Proceedings and Recommendations of National Workshop on Knowledge Multiplication and Mass Communication for Agriculture in arena of Climate Change

NCCSD, NITI Aayog (Government of India)

A one day National Level Workshop on "Knowledge multiplication and mass communication for agriculture in arena of climate change" held at Gujarat Chamber of Commerce & Industry, Gujarat Chamber Building, Ashram Road, Ahmedabad on 27 October, 2015, which was jointly organized by National Council for Climate Change, Sustainable Development and Public Leadership, Ahemedabad, Niti Aayog, New Delhi, Gujarat Chamber of Commerce & Industry, Ahmedabad and Junagadh Agricultural University, Junagadh. The workshop was chaired by the Justice B. P. Singh, Formerly Judge, Supreme Court of India, & President, NCCSD, in the auspicious presence of Prof. Y. S. Rajan, Honorary Distinguished Professor, ISRO/DOS and Chairman , BOG, NIT, Manipur; Dr. J. P. Miishra, Advisor (Agriculture) NITI Aayog, Government of India; Dr. M. Maheswari, PI, CRIDA, Hyderabad; Dr. A. R. Pathak, Hon'ble Vice Chancellor, Junagadh Agricultural University, Junagadh; other distinguished scientists from various esteemed institutes of India; other dignitaries, scientists and students from four Agricultural Universities of Gujarat and progressive farmers from Gujarat ,Maharashtra and Rajasthan.


NATIONAL LEVEL WORKSHOP
"KNOWLEDGE MULTIPLICATION AND MASS COMMUNICATION FOR AGRICULTURE IN ARENA OF CLIMATE CHANGE"
27th October, 2015
Gujarat Chamber of Commerce & Industry, Gujarat Chamber Building, Ashram Road, Ahmedabad, Gujarat, India