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Report on Farmers' Training in Peddapur Village, Peri- Urban Hyderabad, India

As Part of Capacity Building and Knowledge Sharing
Activities under CoCOON - CCMCC Project

Climate Policy, Conflicts and Cooperation in
Peri-Urban South Asia: Towards Resilient and
Water Secure Communities

SaciWATERS

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Netherlands Organisation
for Scientific Research

Acknowledgement

This report contains discussion about training of farmers organised under capacity building activity under the project titled “Climate Policy, Conflicts and Cooperation in Peri-Urban South Asia: Towards Resilient and Water Secure Communities”. We would like to express our gratitude to the Netherlands Organisation for Scientific Research (NWO) for funding the project. We would also like to thank all the participant farmers and resource persons. And, we are grateful to the staff members of government school, Peddapur for providing a place and support in organising this training.

Report of Farmers' Training on "Sustainable Agricultural Practices and Rain Water Harvesting"

Date of Training: 31 October 2015

Venue - Government Primary School, Village Peddapur, Block Sadasivpet, District Medak, Telangana

Introduction

Among the five peri-urban villages around the city of Hyderabad, selected for carrying out research related to conflict and cooperation in the field of water under the project CoCOON - CCMCC, Peddapur had been selected for providing an effective training to its farmers as part of the capacity building and knowledge sharing activities. Basic objective of the farmers' training was to equip them with sustainable tools and methods of farming which could help them at the time of severe droughts and floods, and to cope up with the gradually changing environment (including climatic parameters, such as temperature, rainfall and aridity). In this training farmers were encouraged to adapt environmentally resilient sustainable and scientific cropping methods, and in-situ and ex-situ rainwater harvesting methods which can help them in reducing economic vulnerability.

Vulnerability due to variability in climatic parameters and consequent decline in farm productivity and Common Property Resources (CPRs) induced by rapidly growing urbanization and industrialization, has restructured the livelihood pattern in these peri-urban villages. The concept of shifting residual farm labour into the non-farm sector, does not seem to work out in case of these villages as there has been distress-pushed shift from farm based to non-farm based livelihoods which are largely informal in nature. Lure of urban living style among the youth, growing mono-crop culture influenced by urban demand and existing Minimum Support price, MSP offered by government, and policies such as land acquisition have added to the severity of agricultural households being vulnerable in economic context. On the basis of scoping study survey findings during post-monsoon season in 2015, it could be stated that among the five study villages Peddapur is the one reflecting a distinct combination of the severe impacts of climatic variability, reduced CPRs, government policies, and urbanization.

Peddapur Gram Panchayat comprising of Peddapur village and Naksanapalli Hamlet is a part of Sadasivpet block of Medak district, and is located along NH 9. This village which is predominantly an agrarian economy (table 1; approximately two-third out of 1093 main workers are engaged in farm based activities) was heavily dependent on surface water for irrigation till 90's. As an adaptation strategy, on some extent, these villages have experienced technological and biological innovation in farming system through excessive use of chemical fertilizers and pesticides respectively, though not sustainable for agro-ecology of the region in the long run. Livelihood pattern has diversified many fold in previous two decades, as stated by the villagers in focused group discussion (FGD). To increase the purchasing power, influenced by urban inflation and government MSPs, villagers have now coped up with the commercialized farming system through heavy production of nurseries, cotton and other cash crops such as sugarcane which has led to further degradation of ground and surface water resources.

Table 1: Socio-Economic and Demographic Profile of Peddapur Village, 2011

Total Households	891
Total Population	4183
Sex Ratio	940
% of SC/ ST Population	8
Crude Literacy Rate (in %)	57
WPR	39
% of Cultivators	25
% of Agricultural Labourers	43
% of Household Industry	4
% of Others	28

Source: Primary Census Abstract. WPR - workforce participation rates defined as number of main workers per hundred population. Sex Ratio - is defined as number of females per thousand males. Percentages of cultivators, agricultural labourers, home-based industry workers, and others has been derived out of the total main workforce.

About the Training

Following the Recommendations for the training came out from the need assessment survey conducted on 18th October 2015 in the village; four core sessions were taken by the resource persons (please also see the schedule below). A total of 35 members participated in the training, mostly from economically and socially deprived and vulnerable groups.

Schedule

Session	Time	Facilitator
Opening Note	11:00 am - 11:15 am	Mr. Venu Gopal, SaciWATERS
Rainwater Harvesting Methods in Farmlands	11:15 am - 12:00 pm	Mr. Jala Satyanarayana, HMWSSB
Organic Farming Methods	12:00 pm - 12:45 pm	Mr. Ponnuswami
Sustainable Agricultural Practices and Extension Services	12:45 pm - 01:45 pm	Dr. Rajashekar, Centre for Sustainable Agriculture
Zero-Budget Natural Farming	01:45 pm - 2:15 pm	Mr. Venu Gopal, SaciWATERS
Vote of Thanks	2:15 pm - 2:30 pm	Mr. Venu Gopal

Lunch: 2:30 pm onwards.

Core Session 1: following the welcome note, Mr. Jala Satyanaranaya, Assistant Director, Rainwater Harvesting Cell, Hyderabad Metropolitan Water Supply and Sewerage Board, HMWSSB took up the first session. The villagers reported problems that revolved around the availability of rainfall and ground water. The training therefore focused on in-situ soil and water conservation, village level rainwater harvesting and on information channels for weather forecasting to make timely and appropriate management decisions in carrying out farming practices. He majorly emphasised on the following practices in his interaction with the villagers-

- Recharge pit for rejuvenation of defunct bore-wells with various techniques such as pores in plastic pipes and digging of open wells beside the bore-well, and
- Farm pond system for in-situ rainwater harvesting.

Core Session 2: was taken up by Mr. Ponnuswami an experienced organic farmer from nearby Mubarakpur village. He organically grows cotton, sugarcane, paddy and other crops in more than 50 acres of land. He encouraged the farmers to adopt micro-irrigation systems such as drip-irrigation and oil-fertigation system.

Core Session 3: was taken by Dr. Rajashekar, Centre for Sustainable Agriculture, Secunderabad. He talked about institutional agricultural extension services available for the farmers and life cycle of the enemy insects. He also spoke on sustainable agricultural practices and rainwater harvesting methods such as-

- Neem seed extract preparation for killing insects,
- Lantana leaf extract preparation for killing insects, and
- Farm pond system for in-situ rainwater harvesting.

Core Session 4: was taken up by Venu Gopal, Research Staff from SaciWATERs, Secunderabad. In a very interesting and interactive manner, he delivered a lecture on zero-budget natural farming methods, harvesting methods and soil conservation. He explained about the following techniques-

- Zero budget natural farming methods- intercropping methods, fence crops, mixed-cropping method, bio-extract preparation and jeevamrutha¹ extract preparation,
- Fixing the V-shaped sticks for bird-sitting (to prevent the crops from insects),
- Cross-ploughing; dead fallow system for maintaining moisture (rainwater harvesting method); trench along with farm boundary,
- Mulching techniques for reducing evaporation and soil erosion, and
- Bio-compost pit.

The training ended with a closing note by Mr.Venu Gopal followed by lunch.

¹ <http://www.vanashree.in/jeevamrutha.htm> (for further explanation).

Snapshots from the training



Dr. Rajashekar, Centre for Sustainable Agriculture, delivering lecture.



Mr. Venu Gopal, SaciWATERS, delivering lecture on zero-based natural farming.



Mr. Jalasatyanarana, HMWSSB, delivering lecture on rain-water harvesting.



Mr. Ponnuswami sharing his experience in practicing organic farming and irrigation techniques.