Knowledge and Practices of Local Residents Regarding Rainwater Harvesting (RH)

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Abstract:
World population is increasing and it increases the demand for water. Due to which water resources are diminishing. There is dire need of creating awareness among the local population regarding current RWH potential as a dynamic alternative solution for water shortage. Water may be conserved and utilized by catchment of rooftop. This paper explores the knowledge of the population, for this study, four areas from Pune city were selected. The samples --- was kept as 117 --non-probability purposive sampling who met inclusion criteria. Self-structured questionnaire was developed based on the research problem.

Eighty-one (69%) respondents were male, majority of the participants (58%) were above 20 years of age. Sixty-three samples (54%) were studied above graduation. It was found that ------80% of the respondents were having moderate knowledge and only 15 (12%) respondents were found adequate knowledge.

Introduction
"Harvest the rain, reap the gains"

Water is an essential natural resource. Everybody needs water for their survival. Water is also called as life on this earth Hence, it is one of the basic need of a human being,.[1] Water should be safe, adequate and potable. Rainwater Harvesting is method of storing water. Rainwater Harvesting refers to the process of collecting and storing of rainwater. This type of water when stored in adequate amount may be useful for agriculture, industry, drinking and utility purposes. .[2] Ground water is relatively less vulnerable to pollution. Pune is the second largest city of Maharashtra and population of Pune district is more than 50 lakh. Simultaneously demand of water is also more in this district due to largest industrial belt, more construction sites and densely populated area. Pune is located at 100 kms distance from west coast at confluences of Mula and Mutha River. The innovated technological intervention is utmost important for this city. Every citizen of the state and country should utilize the technological intervention to store water and fulfill the need of adequate water for individuals. Based on the above scenerrio and facts mentioned researcher conducted the study to explore knowledge and practices of local populations regarding rain water harvesting in the Pune

Table No 1
Distribution of demographic data

Sr. No	Particular	Frequency	Percentage (%)
1.	**Age**		
a.	17-20 years	49	41.9
b.	Above 20 years	68	58.1
2.	**Gender**		
a.	Male	36	30.8
b.	Female	81	69.2
3.	**Education**		

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a.	Secondary School Education	1	1
b.	Higher Secondary Education	41	35
c.	Graduate Degree	63	54
d.	Post Graduate Degree	12	10

SECTION B

OVERALL KNOWLEDGE ABOUT RAINWATER HARVESTING AMONG THE LOCAL RESIDENTS

Table 4- Level of Knowledge on Rainwater Harvesting among the Local Residents

n=117

SL.NO	LEVELS	LIMITS	TOTAL	PERCENTAGE
1	Inadequate	0 - 4	8	6.8
2	Moderate	5 - 8	94	80.3
3	Adequate	9 - 11	15	12.9

Table shows that 94 (80.3%) of the study population have moderate knowledge and about 15 (12.9%) of the study population have adequate knowledge and only eight (6.8%) of the study samples have inadequate knowledge on the rainwater harvesting.

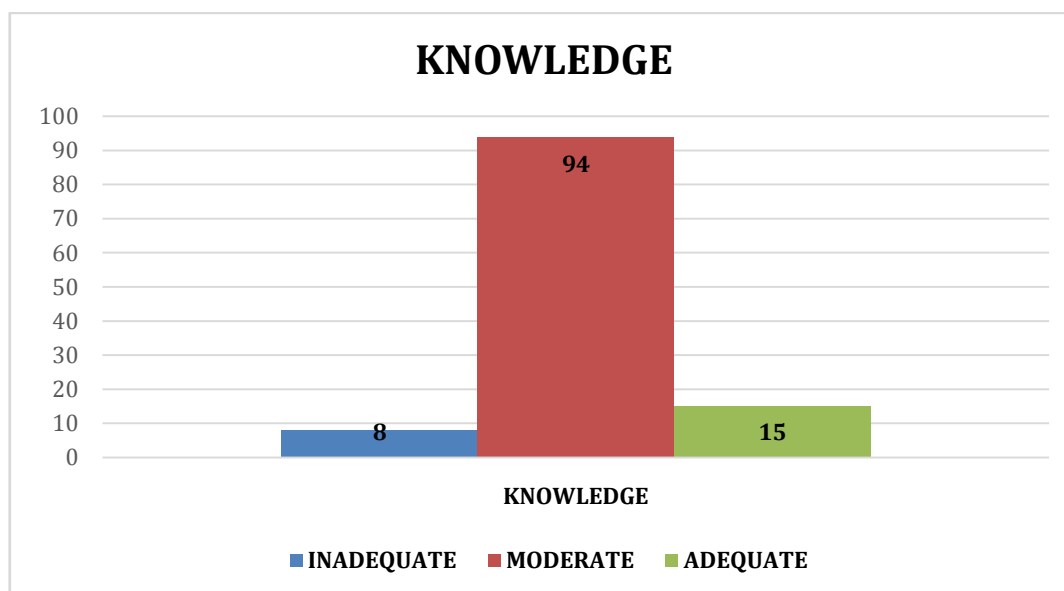**Figure 4- Level of Knowledge on Rainwater Harvesting among the Local Residents**

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SECTION C

OVERALL PRACTICE OF RAINWATER HARVESTING AMONG THE LOCAL RESIDENTS

Table 5 - Level of Practice of Rainwater Harvesting among the Local Residents

n=117

| SL.NO	LEVELS	LIMITS	TOTAL	PERCENTAGE
1	Inadequate	0 - 3	37	31.6
2	Moderate	4 - 6	72	61.5
3	Adequate	7 - 9	8	6.9

Table shows that 72 (61.5%) of the study population have moderate practice and about 37 (31.6%) of the study population have inadequate practice and only 8 (6.9%) of the study samples have adequate practice in the rainwater harvesting.

Figure 5 - Level of Practice of Rainwater Harvesting among the Local Residents
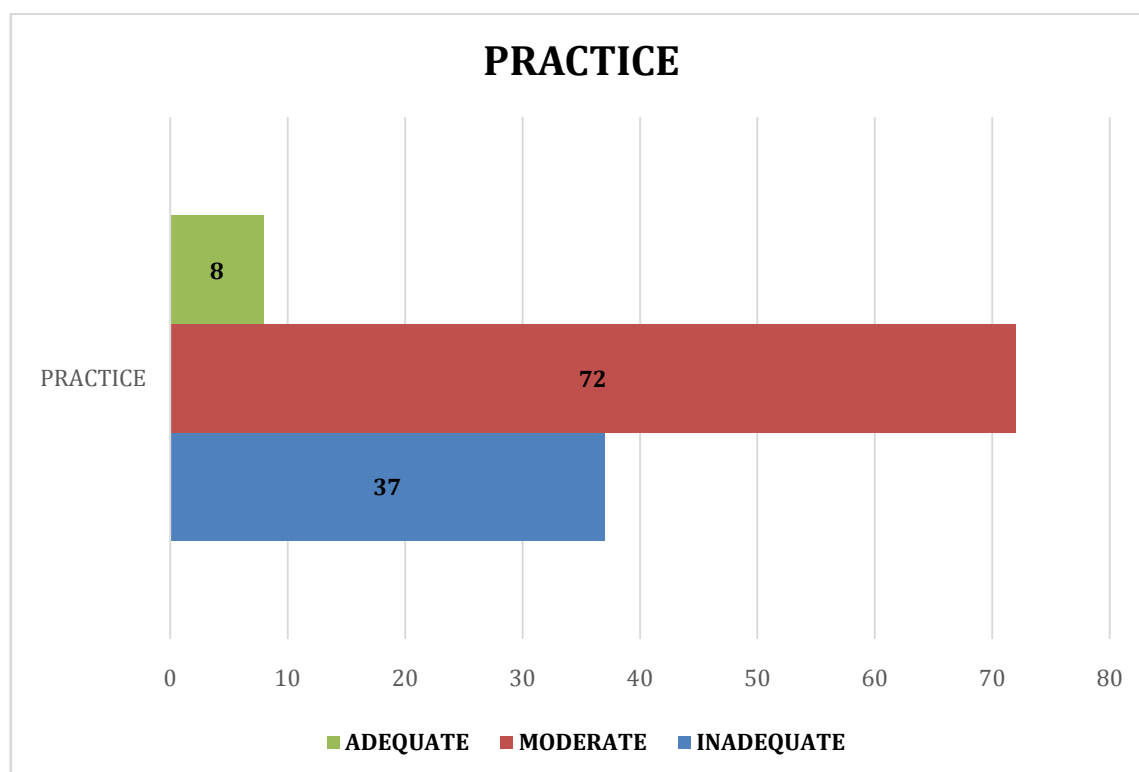
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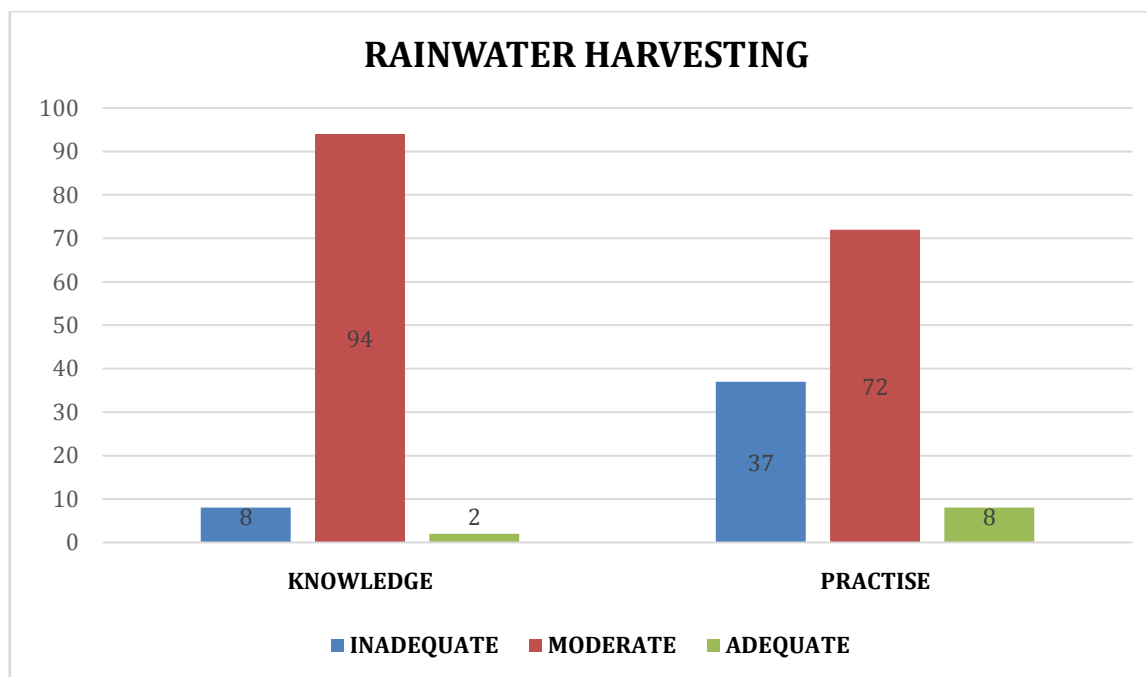OVERALL KNOWLEDGE AND PRACTICE OF RAINWATER HARVESTING AMONG THE LOCAL RESIDENTS

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SECTION- D
CORRELATION BETWEEN THE KNOWLEDGE AND PRACTICES OF RAIN WATER HARVESTING AMONG THE LOCAL RESIDENTS

The correlation between the knowledge and the practices of local population on the rain water harvesting has been found out using the **Pearson's correlation coefficient**. It denoted by the symbol **'r'**.After the calculations it was found that **r = 0.5606**. it shows a positive correlation and moderate positive correlation between the knowledge of rainwater harvesting and the practice of the rainwater harvesting among the local residents.

DISCUSSION
A study was conducted in view to sensitize the local population to utilize the technological support in storing the water and make water available to all local population for their day-to-day utilization and drinking. As per findings of this study 94 (80.3%) of the study population have moderate knowledge and about 15 (12.9%) of the study population have adequate knowledge and only 8 (6.8%) of the study samples have inadequate knowledge on the rainwater harvesting. The findings in similar study was
Majority 70.7% of the housewives had moderate knowledge 17.33% had inadequate knowledge and 12% of them had adequate knowledge regarding rain water harvesting.[5]
The study revealed that 72 (61.5%) of the study population have moderate practice and about 37 (31.6%) of the study population have inadequate practice and only 8 (6.9%) of the study samples have adequate practice in the rainwater harvesting. In similar study findings stated that 55 and 44 per cent of the respondents had dug well and rainwater as a source of water supply respectively. They found that harvested rain water was majorly used for personal hygiene (44.00 %), cooking (22.00 %). Drinking (17.00 %) followed by washing utensils (11.00 %).

REFERENCE

1. Sunil J. Kulkarni, "Removal Of Organic Matter From Domestic Waste Water By Adsorption", International Journal Of Science, Engineering And Technology Research,, 2013, 2(10),1836-18840.
2. Sunil J. Kulkarni, Ajaygiri K. Goswami, "Applications and Advancements In Treatment Of Waste Water By Membrane Technology- A Review", International Journal Of Engineering Sciences & Research Technology, 2014, 3(9), 446-450.
3. Sunil Jayant Kulkarni, "Solute Uptake, Kinetic and Isotherm Studies For Copper Removal: A Review", International Journal of Research, 2015, 2(1), 718-723.
4. Kulkarni Sj. Research and Studies on Cobalt Removal from Wastewater. Int J Res Rev. 2016, 3(7), 41-44
5. VanajaKumari B and Arumugam Indira., Knowledge on "Rainwater Harvesting" Among Housewives' Of Urban Community, Nellore. International Journal of Recent Scientific Vol. 6, Issue, 7, pp.5537-5541, July, 2015