

Awareness among women regarding deforestation and fuel wood saving practices followed by them

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Received: 21.02.2013; Revised: 05.06.2013; Accepted: 08.06.2013

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■ **ABSTRACT** : The present investigation was undertaken to know the awareness of rural and urban respondents regarding deforestation, its causes and effects and to study the firewood saving practices followed by respondents. The study was conducted on 60 rural and 60 urban respondents of Ludhiana district and the results showed that only 10 per cent of rural and 88.33 per cent of the urban respondents were aware about deforestation. As regards energy saving techniques while using fuel wood about 60 per cent rural respondents used to follow such practices. The urban households were not found to be using firewood at all.

■ **KEY WORDS** : Deforestation, Fuel wood conservation, Causes of deforestation, Effects of deforestation

■ **HOW TO CITE THIS PAPER** : Bisht, Deepika and Bakhshi, Rupa (2013). Awareness among women regarding deforestation and fuel wood saving practices followed by them. *Asian J. Home Sci.*, 8 (1): 242-244.

Extensive use of fuel wood for domestic purpose is a common feature in the entire world and especially in the third world. In many developing countries, over 90 per cent of domestic energy is supplied by wood. Because poor people cannot afford alternatives, wood remains the main fuel even in areas where forests are rapidly disappearing. The harmful effects of deforestation are so much that all over the world people and authorities have realised that forest resources must be conserved properly in order to protect the ecosystem.

In India it has been suggested that domestic fuel wood use is the single most important cause contributing to the depletion of forests (FSI, 1988). Scientists estimate that India should ideally have 33 per cent of its land under forests. Today, we only have about 12 per cent. Thus, we need not only to protect our existing forests but also to increase our forest cover (Bharucha, 2005).

The present research was planned with the objective to know the awareness of rural and urban respondents regarding deforestation, its causes and effects and to study the firewood saving practices followed by respondents.

■ RESEARCH METHODS

The study was conducted in two urban localities of

Ludhiana city and two villages of Ludhiana district. For the selection of the urban respondents, out of four zones of Ludhiana city, west zone was randomly selected. From the west zone two localities namely; Punjab Agricultural University Campus and Kitchlu Nagar were randomly selected. From each of these localities 30 households were randomly selected; thus, the urban sample comprised of 60 households.

For selection of rural sample, Sidhwan Bet block was randomly selected out of 11 blocks of Ludhiana district. From this block, two villages namely; Sawaddi Kalan and Birk were randomly selected out of the total list of 92 villages. Further thirty randomly selected households were taken from each of the two selected villages, Sawaddi Kalan and Birk, thus, selecting the rural sample of 60 households.

For collecting the relevant data as per the objectives of the study, a self-structured interview schedule was prepared. The well-structured interview schedule was pre-tested before using it for actual data collection. For this purpose, 20 respondents were selected from a non-sampled area to determine its suitability and accuracy. After pre-testing of interview schedule, necessary modifications were made and the final interview schedule was prepared.

■ RESEARCH FINDINGS AND DISCUSSION

The results of the present study as well as relevant discussions have been presented under following sub heads:

Awareness regarding deforestation :

As regards awareness about deforestation, its causes and effects, it may be observed that 10 per cent rural respondents and 88.33 per cent urban respondents were aware about deforestation and rest had no knowledge about it (Fig. 1). There is a highly statistical association found between the responses of rural and urban respondents regarding their awareness about deforestation. These results are in conformity with those of Jarju (2008) who also found that in general Gambians were not aware of fuelwood crisis, nor did they worry about future supplies from the forest. The majority of the respondents indicated that forests will continue to provide fuelwood, as a result of 'others' planting trees, regardless of the fact that the collection time has increased.

Table 1 presents data regarding causes of deforestation as perceived by the respondents and it was seen that of those who were aware, all the rural and 88.68 per cent urban respondents considered urban construction as the cause of

deforestation. One thirds *i.e.* 33.33 per cent rural and 77.36 per cent urban respondents thought commercial use of land as the cause of deforestation. 'Use of wood for fuel' was thought to be the reason of deforestation by 50.94 per cent urban respondents as against none from rural category.

Besides, 18.87 per cent urban respondents thought agriculture as the main reason for deforestation while 11.32 per cent thought that use of land for grazing purpose led to deforestation.

Table 2 presents the responses regarding the effects of deforestation as perceived by the respondents and it can be observed that 33.33 per cent rural and a large number of urban respondents (90.57 per cent) said that deforestation can result in climate change. Besides, 33.33 and 47.17 per cent rural and urban respondents, respectively knew that erosion of soil could be a result of deforestation.

It can be further observed that 16.67 per cent rural respondents said that deforestation results in floods and droughts as against 52.83 per cent urban respondents who also had the same views. Only 9.43 per cent urban respondents said that non-availability of forest produce, death of living organisms, global warming, depletion of ozone layer could be

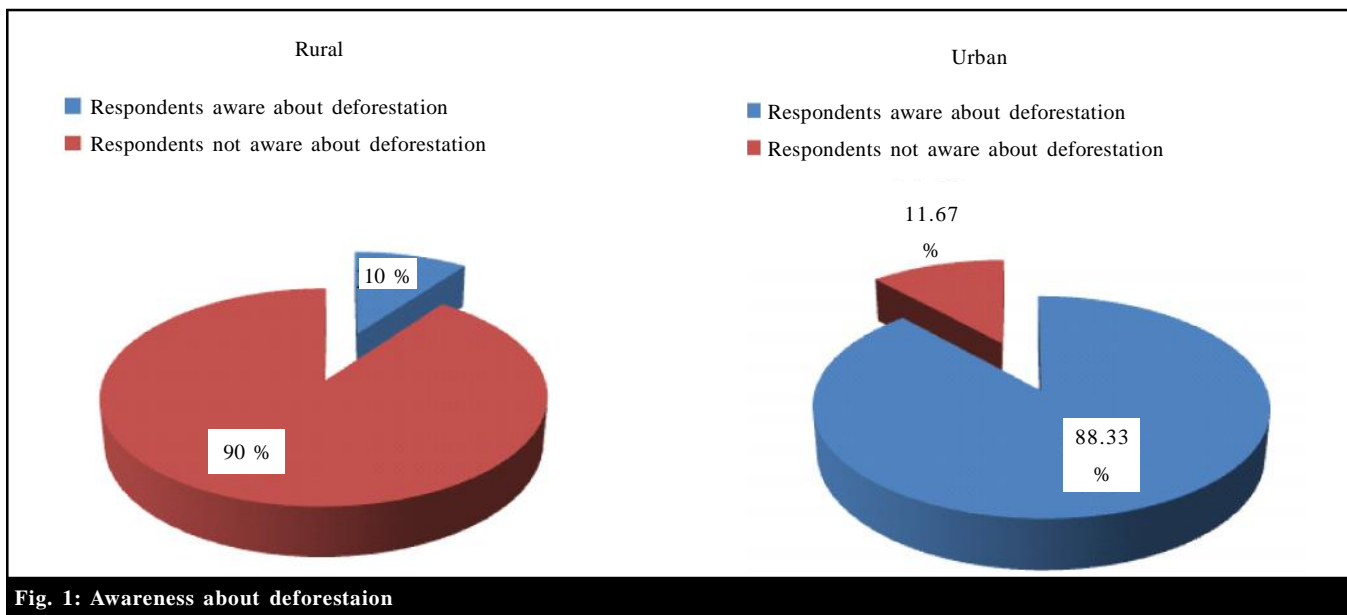


Fig. 1: Awareness about deforestation

Table 1: Distribution of respondents according to their awareness about causes of deforestation as perceived by them

Causes of deforestation	Respondent category			Z-value	Total (n=59)
	Rural (n=6)	Urban (n=53)			
Urban construction	6(100.00)	47(88.68)	0.87		53(44.17)
Commercial purposes	2(33.33)	41(77.36)	2.30*		43(35.83)
Used for fuel	0(0.00)	27(50.94)	-		27(22.50)
Agriculture	0(0.00)	10(18.87)	-		10(8.33)
Grazing land	0(0.00)	6(11.32)	-		6(5.00)

Note: Figures in parentheses indicate percentages, * Indicate significance of value at P=0.05

Table 2: Distribution of respondents according to the awareness about

Effects of deforestation	Respondent category			Z-value	Total (n=59)
	Rural (n=6)	Urban (n=53)			
Climate change	2 (33.33)	48 (90.57)		3.70**	50 (41.67)
Emission of soil	2 (33.33)	25 (47.17)		0.65	27 (22.50)
Flooding and drought	1 (16.67)	28 (52.83)		1.68	29 (24.17)
Others (non-availability of forest produce, death of living organisms, global warming, depletion of ozone layer)	0 (0.00)	5 (9.43)		-	5 (4.17)

Note: Figures in parentheses indicate percentages, ** Indicate significance of value at P=0.01

Table 3 : Distribution of rural respondents according to firewood saving practices and frequency of their use

Energy saving practices	Rural		S.D.
	Usage	Mean scores	
Collect wood from fallen trees	38(63.33)	1.53	0.51
Dry the wood before using it as firewood	37(61.67)	2.00	0.00
Use smaller pieces of wood	36(60.00)	1.58	0.51

Note: Figures in parentheses indicate percentages

the possible effects of deforestation. It can be concluded that comparatively more urban respondents were aware about deforestation, its causes and effects over the rural respondents which can be attributed to their low educational level and ignorance about this phenomenon.

Energy saving practices while using firewood :

As regard the energy saving techniques while using firewood, it can be observed from Table 3 that 63.33 per cent rural respondents used to collect fire wood from fallen trees.

A large number of rural respondents (61.67 per cent) were found to dry the wood before using it as firewood. This may be because of the reason that dry wood burns more efficiently as compared to fresh wood and does not produce smoky fire. Sixty per cent of rural respondents were found to use smaller pieces of wood in the *Chulha*. This may be because they were aware of the fact that smaller pieces of wood burn more efficiently due to larger surface area. The urban households were not found to be using firewood at all. This can be attributed to easy availability of other energy sources to them.

Conclusion :

One of India’s serious environmental problems is forest degradation due to timber extraction and our dependence on fuel wood. A large number of poor rural people are still highly dependent on wood to cook their meals and heat their homes. We have not been able to plant enough trees at a sufficient rate to support the need for timber and fuel wood. It is essential to halt the indiscriminate felling of trees, twigs and branches of living trees before it gets too late and result in total deforestation.

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