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## **SOCIO-ECONOMIC BACKGROUND OF FLUOROSIS RESPONDENT -A CASE STUDY OF NALGONDA DISTRICT**

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### **Abstract**

The paper was prepared based on primary data. The data has been collected from the fluorosis diseased victims in the Nalgonda district selected village areas. The 120 respondents concentrated here have 510 hover of family members altogether with 348 earnings supporters in the hover of family. The normal income of every family is Rs.1345 as indicated by month. Cultivating is the essential kind of revenue, seen through agrarian difficult work and few people are locked in as talented individuals, for example, private venture, administrations and so forth some of the 108 families, 87 families own property added up to 200.74 sections of land, with a midpoints of 2.3 sections of land as per family. Of the full 120 families, 99 (91.6%) homes have assets, for example, cycle, T.V., electric fan, radio and numerous others. adding up to a normal of Rs. 17,203 predictable with family.

**Key words: Socio-Economic, Income, fluorosis, Age, Gender**

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### **INTRODUCTION**

The long-sustained dual problems which might be affecting the groundwater fine globally have been addressed right here. Fluoride, an important ion for people to prevent dental caries, is one of the most important contaminants that have deteriorated groundwater quality in many nations round the arena. It is a motive of numerous illnesses and abnormalities within the human frame if ate up in more than the needful quantity for the ongoing period. The second difficulty to groundwater is Salinity that impacts the substance synthesis of groundwater that is correspondingly corrupting the five star of rural terrains adding to the deficiency of biodiversity, loss of ripe soil, and causing wellness issues. Studies had been executed around the area to perceive the establishment of these pollutants in groundwater resources, their effects on human wellness and healing measures to win over the issue. On this bankruptcy, a comprehensive literature review is provided on the fluoride and salinity problems masking the subsequent statistics:

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1. Supply of fluoride and saltiness in groundwater
2. Event of fluoride and saltiness in uncommon conditions of India
3. Effects of fluoride and saltiness on the human wellbeing
4. Wellbeing hazard assessment because of fluoride openness
5. Hydrochemistry of groundwater
6. Remediation and restoration of groundwater resources

The 120 respondents concentrated here have 510 hover of family members altogether with 348 earnings supporters in the hover of family. The normal income of every family is Rs.1345 as indicated by month. Cultivating is the essential kind of revenue, seen through agrarian difficult work and few people are locked in as talented individuals, for example, private venture, administrations and so forth some of the 108 families, 87 families own property added up to 200.74 sections of land, with a midpoints of 2.3 sections of land as per family. Of the full 120 families, 99 (91.6%) homes have assets, for example, cycle, T.V., electric fan, radio and numerous others. adding up to a normal of Rs. 17,203 predictable with family.

### **Community Level Fluoride Programs**

The world's population exceeds 7 billion, yet fewer than 1 billion have access to proven community-based water or salt fluoridation programs (and not all those with access take advantage of it). Such programs reduce the prevalence and severity of tooth decay, the most common chronic disease of children, which may be untreated in as much as 95% of the population of some countries.

### **REVIEW LITERATURE**

Fluorine, a profoundly receptive component, is for the most part incorporated in a compound along with sodium fluoride, and in arrangement transforms into the fluoride particle. The supported fixation out in the open water substances is around one section steady with million (extra or less) depending on the temperature and therefore the measure of water individuals is probably going to drink. Numerous examinations have demonstrated that once young people drink fluoridated water; their regular pace of tooth rot is by all accounts considerably decreased. A normal observes guaranteed is half decrease. This clearly enormous increase for kids' polish is the essential contention in like of fluoridation. There are no ordinarily described gifts for grown-ups from ingesting fluoridated water. Water fluoridation is most straightforward one approach to achieve the advantages of fluoride. Different methodologies are fluoride pills, along with fluoride in work area salt, and getting

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effective (surface) utilizations of fluoride from dental specialists. Water fluoridation has been favored in light of the fact that it is less expensive and requires no man or lady inception.

## **OBJECTIVE OF THE STUDY**

1. To study the Socio-Economic background of fluorosis respondents

## **HYPOTHESIS OF THE STUDY**

**Ho:** there is no association between socio-economic background and impact of fluorosis diseases.

## **RESEARCH METHODOLOGY**

**Sources of data:** the study was prepared based on primary data. The data has been collected from the fluorosis diseased victims in the Nalgonda district selected village areas.

**Study period:** the study period is selected two years from 2021-2022.

## **ANALYSIS OF THE SOCIO-ECONOMIC CONDITIONS OF THE RESPONDENTS**

### ***Overall Socio-Economic Status of the Respondents***

The 108 respondents concentrated here have 602 own relatives in generally with 248 wages members in the hover of family members. The regular pay of each family is Rs.1343 (27 USD) with regards to month. Cultivating is the essential wellspring of benefits, went with the guide of agrarian efforts and few people are locked in as expert workers along with little venture, contributions, etc. Among the 108 family units, just 87 families individual land added up to 200.74 sections of land, with a mean of 2.3 sections of land per family. Of the all-out 108 families, 99 (91.6%) houses have resources which incorporate cycle, T.V., electric fueled fan, radio and so forth, adding up to average of Rs. 17,203 with regards to family unit.

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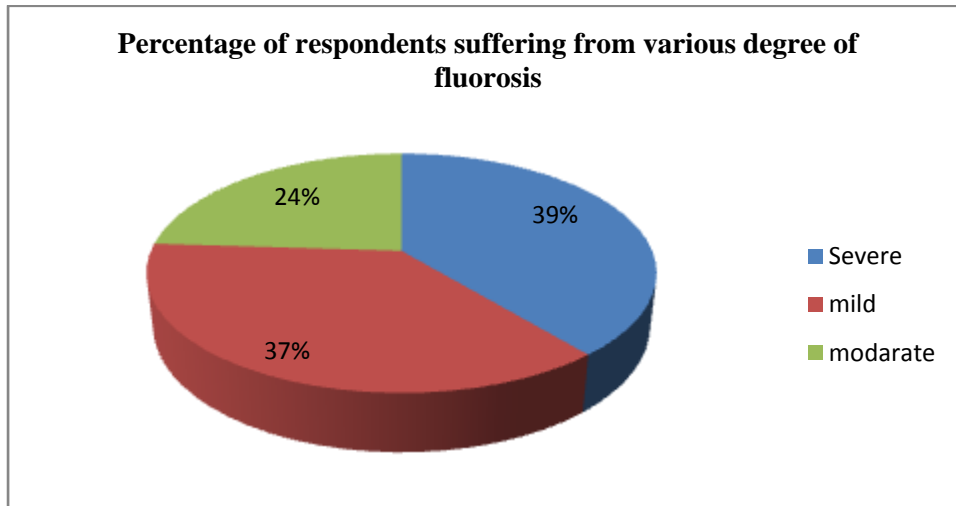
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### **Fluoride Impact Severity/ Degree of Fluorosis among the respondents**

Percentage of respondents suffering from various degree of fluorosis



The scoring approach indicates that 40, 26 and 42 respondents are affected with mild, moderate and severe forms of fluorosis respectively.

### **Self-Report of Participants' Primary Drinking Water Sources**

70.37 % respondents (76) use tube wells for drinking water reason followed by just 24% respondents utilizing pipeline water supply. The leftover 5.63% of the respondents utilize other drinking water sources, for example, open wells. Of the 70.37% respondents utilizing tube wells, 32%, 22% and 46% respondents have gentle, moderate and extreme fluorosis separately. Essentially, of the 24% respondents utilizing pipe line water supply, just 46%, 31% and 23% respondents have gentle, moderate and serious fluorosis individually.

### **Relationship of Fluorosis with Respondents' Age and Sex**

The level of respondents with extreme fluorosis increments steeply with age, particularly after the age of 30. In any case, it has a terrible picture after 50. The biggest number of tormented individuals is found in the age gathering of 41-50 years representing 51.6% of guys and 48.3% of female of the absolute respondents in that age gathering. Moreover, fluoride weakness cases are higher among females with (67.5%) in the age gathering of 21-40 while after the age of 40, the cases are higher among guys (63.8%), be that as it may, after the age of 60, there are immaterial instances of fluorosis among females (0.9%).

### **Relationship of Fluorosis with Respondents' Body Weight**

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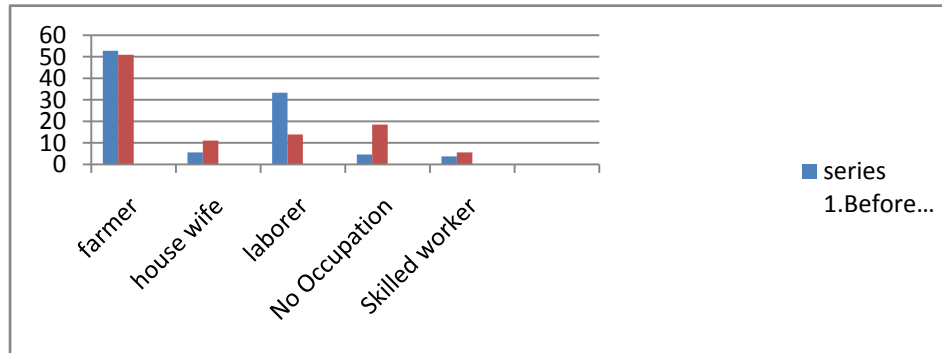
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71.3% of the respondents suffering from fluorosis weigh less than 50 kilos (110 pounds) and only 28.7% respondents weigh between 51-80 kilos.

### **Self-Report of Respondents' Occupation before Fluorosis and now.**



There has been decrease in occupation including arduous actual work, for example, agrarian work by 19.44%. Be that as it may, this is just 1.85% decline in respondents beforehand functioning as ranchers. There has been loss of work of 13.89% respondents, who are currently, totally subject to their relatives for the remainder of their life. Besides, housewives have expanded by 5.55%. The level of gifted specialists, for example, instructors, independent company and so on has expanded by 1.85%, however, this is negligible.

### **Self-Reported Income of Respondents before Fluorosis and now**

46.3% of the respondents (before influenced with fluorosis) were in the pay scope of 501-1000 rupees, notwithstanding, after fluorosis, just 27.78% are currently in this pay gathering. Likewise, the pay gathering of 0-500 rupees had just 12% of the respondents before fluorosis, which has expanded to 32.4% after fluorosis. The pay gathering of 1501-2000 rupees has just 15.7% of the respondents after fluorosis when contrasted with 23% of the respondents before fluorosis. There has been a normal change in pay of Rs. 191 for every individual for each month because of fluorosis.

### **Respondents' monthly expenditure on fluorosis**

Of the complete 108 respondents, 79 respondents (73.15%) took clinical treatment for fluorosis, while the excess 29 respondents (26.85%) didn't take any treatment for fluorosis. While the normal month to month pay per individual (who took treatment) is Rs.1322, the normal month to month consumption per person(who took treatment) is Rs.421. The same number of as 57.4% respondents spent in the middle of Rs.1-500 for therapy thus far, the absolute normal month to month sum brought about because of clinical treatment (for fluorosis just) for 79 burdened people is Rs.33308. In any event 32.4% of the respondents

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have required 1-3 years of treatment followed by 26% of respondents with 4-6 years of treatment. The normal long periods of enduring are 5.3 years.

### **Respondents**

There have been 1,220 telephone interviews wrapped up. The standard meaning of reaction cites essentially dependent on the Indian relationship for general assessment research well known definitions was utilized to get a determined reaction pace of 44.40%. The attributes of the respondents are ensured in table 1. Correlation of the other social overview 2005 realities and the Telangana working environment of financial and factual exploration 2003 populace projections screen that the more youthful age associations specifically the 18-24 years of age class – were beneath spoken to on this example.

**Table-1**  
**Number and percentage of valid respondents connected to the public drinking water supply**

<b>Connected to the public drinking water</b>	<b>Number of valid respondents</b>	<b>Percentage</b>
No	8	1.5
Yes	485	91.9
Unsure	26	4.9
Not stated	9	1.7
<b>Total</b>	<b>528</b>	<b>100.0</b>

**Primary Source**

**Table: 2 Number and percentage of valid respondents knowing whether fluoride has or has not been added to the public drinking water supply**

<b>Knowledge of current fluoridation status of the water supply</b>	<b>Number of valid respondents</b>	<b>Percentage</b>
Don't know	277	52.5
Not stated	9	1.7
Sure fluoride is added	51	9.6
Sure fluoride is not added	191	36.2
<b>Total</b>	<b>526</b>	<b>100.0</b>

**Primary Source**

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**Table: 3 Number and percentage of valid respondents and their agreement to adding fluoride to the public drinking water supply**

agreement to public drinking water supply fluoridation	Number and of valid respondents	percentage
No	232	43.9
Yes	206	39.0
Unsure	85	16.1
Not stated	5	1.0
Total	528	100.0

Primary Source

**Table: 4 Number and percentage of valid respondents and their agreement to public drinking water supply fluoridation by knowledge of current fluoridation status to the public drinking water supply**

Knowledge of current fluoridation status to the public drinking water Supply.	Agreement to public drinking water Supply fluoridation			Total
	Yes	No	Unsure	
Sure added	(20) 39.2	(22) 43.1	(9) 17.7	(51) 100.0
Sure not added	(69) 36.5	(102) 54.9	(18) 9.6	(189) 100.0
Not sure	(141) 50.9	(76) 28.2	(58) 20.9	(277) 100.0
Total	(230) 44.5	(202) 39.1	(85) 16.4	(517) 100.0

Primary Source

**Table: 5 Number and percentage of valid respondents and their agreement with the addition of fluoride to the public drinking water supply, by age group**

Age group	Agree with the addition of fluoride			Total
	Yes	No	Unsure	
18-27	(7) 31.8	(7) 31.8	(8) 36.4	(22) 100.0
28-37	(24) 43.6	(20) 36.4	(11) 20.0	(55) 100.0

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38-47	(40) 42.6	(38) 40.4	(16) 10.0	(94) 100.0
48-57	(42) 49.4	(26) 30.6	(17) 20.0	(85) 100.0
58-67	(57) 43.2	(53) 40.1	(22) 16.7	(132) 100.0
68*	(56) 45.9	(56) 45.9	(10) 8.2	(122) 100.0
Total	(226) 44.3	(200) 39.2%	(84) 16.5	(510) 100.0

**Primary Source**

**Table: 6 Number and percentage of valid respondents and their perception of the safety of fluoridation**

Agree fluoridation is safe	Number of valid respondents	Percentage
No	223	42.2%
Yes	175	33.1%
Unsure	4	0.8%
Not stated	126	23.9%
Total	528	100.0%

**Primary Source**

## **PUBLIC OPINION**

In the complete example of Queensland occupants there was general help for the three inquiries identifying with water fluoridation In total, 70% of the all-out example upheld water fluoridation of their neighborhood supply. This understanding went from a low of 63.6% in the long term and more established example to a high of 77.0% in the 35-44 year-mature age gathering. As for the view of security, over 71% of the absolute example concurred that water fluoridation was protected. The most reduced rate arrangement for this assertion was in the long term age gathering (64.4%), with the most noteworthy percent understanding in the long term age gathering (80.4%). The 35-44 yearold age bunch again showed the most elevated rate arrangement about the adequacy of fluoridation of savoring water the counteraction of tooth rot, with over 80% of this subsample concurring with the assertion. The second-least quartile of the SEIFA order showed the most minimal degrees of help for the defensive impact of fluoride, with 69.3% of this subsample in arrangement. presents the aftereffect of the strategic relapse investigations for each question. Results show that there was a huge relationship between the SEIFA quartile and reaction assessment.



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The best two quartiles were fundamentally bound to concur with the assertion identifying with the help of adding fluoride to nearby drinking water than the most minimal SEIFA quartile. Concerning the view of wellbeing, ladies were more uncertain than men to concur that expansion of fluoride to the water supply was protected (OR 0.74; 95% CI 0.57-0.96). Respondents matured 35-44 years (OR 2.24; 95% CI 1.45-3.45) and 45-54 years (OR 1.65; 95% CI 1.12-2.40) were fundamentally bound to concur with the assertion on fluoride wellbeing than were those matured 18-34 years. The best two SEIFA quartiles were fundamentally bound to concur with the assertion on wellbeing than the most minimal quartile. Age and financial contrasts were noted on the inquiry identifying with the adequacy of fluoride in the anticipation of dental rot, with long term olds (OR 1.78; 95% CI 1.15-2.76) and long term olds (OR 1.50; 95% CI 1.01-2.22) being bound to concur with the assertion than long term olds. By and by, the two top SEIFA quartiles were bound to concur with the assertion than those respondents classed in the most minimal SEIFA quartile.

## CONCLUSION

This examine is the end result of empirical studies amongst people laid low with fluorosis in 5 pick out villages of marriguda mandal, in Nalgonda district of Telangana area. Fluorosis in Nalgonda district is a famous problem in the location and even in the larger Andhra Pradesh kingdom. In this have a look at, I've highlighted some of the social, cultural, and political elements that play a main role in the lives of fluorosis sufferers and their own family contributors. A commonplace assumption is that disabled human beings are provided for through the kingdom thru welfare programs along with incapacity pension, reservations for schooling and employment in country and important authorities businesses.

In non-command area, where further development of groundwater is possible it is mandatory for the farmers to take professional advice regarding selection of bore well sites and depth of well on geophysical and hydro-geological studies.

- Groundwater conservation and artificial recharge structures are needed to be taken up, based on scientific lines, to arrest surface run off in order to enhance the groundwater storage so as to make the existing bore wells sustainable.
- The spacing norms of 250m distance between two adjacent bore wells shall be observed
- The command area, especially in headwater reaches, conjunctive use of groundwater and surface water are to be encouraged for irrigation purpose to enhance yield potential and at the same time improving the water quality and minimizing the water

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logging threat. The tail-end farmers are also benefited with more canal supply, fulfilling the concept of equitable distribution.

- The authorities for optimum use of surface and groundwater are to be adopted watershed wise water management plans.
- Mass awareness programmes are to be must widely conducted on regular basis in the 'rural' areas to educate the farmers regarding the water management to update their knowledge. Training for local government functionaries, NGOs, voluntary organizations engaged in watershed development activity are to be trained in scientific techniques in the selection of sites, design of structures, etc. for construction of rainwater harvesting and artificial recharge structures.
- The area having F concentration more than permissible limit, are to be provided fluoride filtered water in subsidized rate by installing filter plants at different localities by providing financial support from Government.
- There should be a complete institutional credit cover to the small and marginal farmers for drilling deep bore wells in the scientifically identified ground water potential zones, for procuring water saving equipment like drip and sprinkler systems, etc.