An Economic Evaluation of Environmental and Socio – Economic Impacts of Sago Industries in Salem District of Tamil Nadu

INTERVIEW SCHEDULE

Name of the Taluk : Attur / Gangavalli  Name of the Village :

Name of the Respondent :

I. GENERAL PROFILE OF THE RESPONDENT

1. Gender :
   1. Male  2. Female

2. Age of the Respondent :

3. Educational Qualification :

4. Marital status :
   1. Married  2. Unmarried

5. Religion :

6. Community :
   1. BC  2. MBC  3. SC/ST  4. Others

7. Family Income :

8. Family expenditure :

9. Nature of the House :

10. How long have you been residing in this Area? 

II. EVALUATION OF ECONOMIC AND ENVIRONMENTAL DAMAGES

A. AGRICULTURE

11. Are you Land Holder? :
   1. Yes  2. No

12. How much of land (in acre) :

13. Which type land? (in acre) :
   1. Wet  2. Dry

14. What is the source of irrigation?
15. How does irrigation affect by sago industrial pollution?
   1. Yes  
   2. No  
   3. Not applicable

16. Is it suitable for cultivation? :  
   1. Yes  
   2. No

17. Type of cropping pattern now _______before_________  

18. Do you think change in the cropping pattern is due to sago industrial pollution?:
   1. Yes  
   2. No

19. Whether the sago industry any depressing impact on the land:
   1. Low  
   2. Medium  
   3. High

20. Whether land affected by sago pollution? _________ (in acre)

21. Which type of problem based on your land?
   1. Salinity  
   2. Alkalinity  
   3. Others

22. Did you do the soil test from your land?
   1. Yes  
   2. No

23. Which type do you following to Cultivate?
   1. Fully  
   2. Partially

   a) If partially among your cultivation which type of problem based
      1. Low Production  
      2. Less availability inputs  
      3. High cost of production  
      4. Contaminated  
      5. Less availability of water for irrigation

24. Have you cultivated normal yield?
   1. Yes  
   2. No

25. If no, which can be the reasons
   1. Water availability/quality  
   2. Sago industrial pollution  
   3. Soil quality decreased  
   4. Less availability of inputs  
   5. Others
26. Whether the soil conditions changed due to sago industrial pollution:
   1. Yes 2. No

27. Have you sold any land due to contamination:
   1. Yes 2. No

28. Anyone convert from agriculture in your family by pollution problem:
   1. Yes 2. No
   a) If so What is his/her current occupation

29. Loss of yield, specify the crop names and indicate the loss of yield in Rs.

<table>
<thead>
<tr>
<th>Crops Name</th>
<th>Cultivate (in Acre)</th>
<th>Before (Normal) Yield</th>
<th>Yield Value (in Rs.)</th>
<th>After (Pollution) Yield</th>
<th>Yield Value (in Rs.)</th>
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30. Whether the sago factory effluent affected the quality and supply of irrigation:
   1. Yes 2. No
   a) if yes, Which type of Water Quality problem based?

B. LIVE STOCK

31. Do you have Livestock
   1. Yes 2 No

32. Total number of Livestock (in Nos) ________

33. Nature of the illness suffered by livestock due to this pollution ________

34. Annual Cost of treatment ________
35. Is there any death of animals?
   1. Yes          2. No

36. If so specific annual loss due to that __________

37. Do you feel that the area of grazing land declined over a period?
   1. Yes          2. No

38. If yes state the reason
   1. Pollution affects soil quality  2. Land area became dry
   3. Land used for other purposes  4. Grazing land became the dump yard of industrial waste
   5. Others

C. WATER RESOURCES

39. What are the sources of water used in your house?
   1. Open Well   2. Tube well   3. River water
   4. Tank water   5. Others

40. Who is the authority of water supply for drinking water?
   a. Government   b. Private

41. Distance from Home (in Km) ____________

42. How much of time spent for water collection? __________ (in hour)

43. Mode of water collection?

44. Period of water collection?

45. Work loss (in hour) __________

46. Wage loss (in Rs.) __________
47. Nature of water Quality

<table>
<thead>
<tr>
<th>Source of Water</th>
<th>Odour</th>
<th>Colour</th>
<th>Taste</th>
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<tbody>
<tr>
<td></td>
<td>Poor</td>
<td>Moderate</td>
<td>Good</td>
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<tr>
<td>Open Well</td>
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<td></td>
<td></td>
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<tr>
<td>Tube well</td>
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<td></td>
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<tr>
<td>Tank water</td>
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<tr>
<td>Others</td>
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</table>

48. Give reasons for difference in odour, colour and taste

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<thead>
<tr>
<th>Reasons</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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<tbody>
<tr>
<td>Industrial pollution</td>
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<td>Over usage of Chemicals</td>
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<td>Climatic Conditions</td>
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<td>Others</td>
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49. Due to the non-availability of the pure water, do you attempt to fetch water from other place:

1. Yes  2. No

50. Are you willing to pay for clean drinking water?

1. Yes  2. No

51. How often?


52. How much of expenses do you spent for pure water? (in Rs.)__________ (per month)

53. Distance to collect pure water (in km) ____________

54. Whether any spent for pure water collection

1. Time  2. Petrol  3. Communication cost

D. HEALTH

55. Anybody impact of industrial pollution in your family

1. Yes  2. No
56. Whether family members affected by industrial pollution with details

<table>
<thead>
<tr>
<th>Gender</th>
<th>Age</th>
<th>Disease code</th>
<th>Medical Expenses (Per Month)</th>
<th>No of Lose of work days (Per Month)</th>
<th>Average wage (Per day)</th>
<th>Total lose (in ₹,)</th>
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57. Do you think that those diseases are due to the sago industry pollution:

1. Yes 2. No

58. Have you illnesses go to the hospital by pollution?

1. Yes 2. No

59. If yes, type of hospital approached:


60. Type of medicine

1. Siddha 2. English 3. Others

61. Distance of Hospital __________

62. How many days have you treatment taken in the hospital? __________

**E. AWARENESS IN SAGO INDUSTRY POLLUTION**

63. Have you interested in protecting the environment from sago industry pollution?

1. Yes 2. No

64. What is the action taken by you in this concern?

1. Complaint to Government 2. Inform to Authority 3. Any others_________
65. Whether any response for the complaint?
   1. Yes      2. No

66. Are you Willing to organize or join any mass movement against pollution:

67. Willingness to pay for better management of sago industry pollution:
   1. Willing to pay   2. Not WTP

68. What are your Grievances and suggestions the pollution problem due to sago Industry pollution?
Sago Industry Effluent Flow in Attur

Untreated Sago Effluent in Thulaukkuranur
Stagnation of Sago Industry Effluent in Sarvoy

Sago Industry Effluent Flow Sub Basin of Ammampalayam
Untreated Effluent Water Used for Agriculture in Gagavalli

Effects of Water Colour due to Sago Industry to Vashista River
Sago Effluent Impact of Swetha River in Gangavalli Taluk

Impact on Human Health (Skin Problem)
Water Damage in Attur and Gangavalli

Health Impact of Elephantiasis Diseases