Annexure

QUESTIONARIE FOR WATER USE SURVEY

A  Existing Water Use
1.  What source of water you use?
    Hand pump
    Submersible pump
    Corporation supply
    Bottled Water (Bisleri etc.) for drinking only
2.  Where do you use potable water and how much?
    Approx. quantity litres per day
    |                  | Summer | Winter |
    |------------------|--------|--------|
    | Drinking         |        |        |
    | Cooking (including washing of utensils) |        |        |
    | Bathing          |        |        |
    | Washing          |        |        |
    | Vehicle washing  |        |        |
    | Gardening        |        |        |
    | Any other (Pet animals etc.) |        |        |
3.  Which type of vehicle you own?
    Cycle
    Scooter/Motor Cycle
    Car
    Any other (Tractor etc.)
4.  What is frequency of washing vehicles?
    Daily
    Twice a week
    Weekly
5.  Approx. water used for washing (litres)
    Cycle
    Scooter/Motor Cycle
    Car
6.  How do you judge the quality of water?
    i) Taste of water
    ii) Suspended particles
iii) Deposition of salts in containers
iv) Precipitation of salts during boiling
v) Hear say from neighbours
vi) media reports of water contamination
vii) testing from a laboratory

7. **Whether you use filter for your water?**
   - Yes
   - No

8. **Do you think filter improve the quality?**
   - Yes
   - No
   - Do not know

9. **How frequent corporation supply of water break down?**

<table>
<thead>
<tr>
<th></th>
<th>In Summer</th>
<th>In Winter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once a month</td>
<td></td>
<td></td>
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<tr>
<td>Once in 2 months</td>
<td></td>
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<tr>
<td>Once in 3 months</td>
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<tr>
<td>Once in 6 months</td>
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<tr>
<td>Once in 12 months</td>
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</tbody>
</table>

10. **How much time it takes to restore water supply?**

   - One day
   - 2 days
   - 3 days
   - 4 days
   - 5 days
   - 6 days
   - 7 days

11. **What alternative arrangement you have in addition to water tank?**

   - Your own hand pump
   - Neighbourer’s hand pump
   - Neighbourer’s submersible pump

12. **Are you satisfied with the present water supply?**

   - Highly satisfied
   - Satisfied
   - Neutral
Dissatisfied
Highly dissatisfied

B Users awareness about Water
13. Are you aware of hydrological cycle?
   Yes
   No
14. How much Earth’s surface is covered with water?
   1/4   1/3   1/2   2/3   3/4
15. What percentage of total water is available for drinking and crop cultivation (fresh water)?
   3%   5%   10%   20%
16. Percent of water is frozen as ice.
   <25   50   >75   >80
17. The no. of rivers flowing in present Punjab.
   1     2     3     4     5
18. What is the depth (in feet) of ground water in your district?
   (Tick mark relevant)
   5     10     15     20     25
   30     35     40     45     50
   60     70     80     90     100
19. Is water table going up or down?
   Up
   Down
   Stable
   Not Known
20. What is the good quality water?
   I  Good taste
   II Low in salt content
   III Low in turbidity
   IV Low in microbial content
   V  Chlorinated water
21. According to you what is the quality of water you use?
22. **Which water is good for human health?**
   a. Hard water
   b. The hardness of water is due to presence of calcium and magnesium in water. True/False
   c. The softness of water is due to presence of sodium and potassium in water. True/False

23. **Which water is good for domestic use and irrigating crops?**
    Domestic  Crops
    Hard water  
    Soft water  

24. **While using the water for different purposes, mention the following factors according to their importance.**

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<tbody>
<tr>
<td>i) Drinking</td>
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<tr>
<td>ii) Cooking</td>
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<tr>
<td>iii) Bathing</td>
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<tr>
<td>iv) Washing</td>
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<td></td>
<td></td>
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<tr>
<td>v) House washing</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>vi) Pets/Domestic animals</td>
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<tr>
<td>vii) Gardening</td>
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</tbody>
</table>

25. **Do you think increase in living standard/income increase the demand for water?**
   Yes 
   No 
   Can’t Say 

26. **What are your views about the following variables?**
I. There will be scarcity of water in times to come.
   - Yes
   - No
   - Can’t Say

II. Use the water judiciously keeping in view the increasing demand.
   - Yes
   - No
   - Can’t Say

III. Corporation should put some restrictions to avoid the wastage of water.
   - Yes
   - No
   - Can’t Say

IV. Ban on washing cars with supply pipe is a right decision of the corporation.
   - Yes
   - No
   - Can’t Say

V. Similar ban (washing cars) should be introduced for washing the passage and front of the gate (cleanliness can be maintained with “Pocha”)
   - Yes
   - No
   - Can’t Say

27 Use of water to produce vegetables/fruits for our daily requirement is:
   - More
   - Less
   - Do not know

28 What improvement do you want in your water supply?
   - Increase in the duration
   - Increase in water pressure
   - Improvement in quality
   - All of them

29 How much duration of fresh water supply should be?

<table>
<thead>
<tr>
<th>Timings</th>
<th>Morning</th>
<th>Noon</th>
<th>Evening</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 hrs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>4 hrs</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6 hrs</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

xxxi
<table>
<thead>
<tr>
<th>8 hrs</th>
<th>Regular</th>
</tr>
</thead>
</table>

30. **What are your perceptions about water supply?**

- Will you prefer corporation supply [ ]
- Own supply [ ]

31. **Water supply will decrease in future.**

- Every year [ ]
- 5 years [ ]
- 10 years [ ]
- 15 years [ ]
- 20 years [ ]
- Always decreasing [ ]
- Constant maintained by hydrological cycle [ ]

**C  Economy in water use**

32. **What are your present daily water requirements per person?**

<table>
<thead>
<tr>
<th>In Winter</th>
<th>In Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 litre</td>
<td>25 litre</td>
</tr>
<tr>
<td>50 litre</td>
<td>50 litre</td>
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<tr>
<td>75 litre</td>
<td>75 litre</td>
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<tr>
<td>100 litre</td>
<td>100 litre</td>
</tr>
<tr>
<td>125 litre</td>
<td>125 litre</td>
</tr>
<tr>
<td>150 litre</td>
<td>150 litre</td>
</tr>
<tr>
<td>175 litre</td>
<td>175 litre</td>
</tr>
<tr>
<td>200 litre</td>
<td>200 litre</td>
</tr>
</tbody>
</table>

33. **Suppose water is charged at Rs. 1/- per litre then water requirement per person will**

<table>
<thead>
<tr>
<th>In Winter</th>
<th>In Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 litre</td>
<td>25 litre</td>
</tr>
<tr>
<td>50 litre</td>
<td>50 litre</td>
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<tr>
<td>75 litre</td>
<td>75 litre</td>
</tr>
<tr>
<td>100 litre</td>
<td>100 litre</td>
</tr>
<tr>
<td>125 litre</td>
<td>125 litre</td>
</tr>
<tr>
<td>150 litre</td>
<td>150 litre</td>
</tr>
<tr>
<td>175 litre</td>
<td>175 litre</td>
</tr>
<tr>
<td>200 litre</td>
<td>200 litre</td>
</tr>
</tbody>
</table>

34. **Do you think that to keep the demand under check water needs to be priced?**

- Yes [ ]

xxxii
35 Do you think that present water rates charged by the Municipal Corporation covers the cost of water?
Water only
Supply only
Water + Supply
Cost of officials
Can’t say

36 If price is to be charged what should be rate per kilolitre (1 kilolitre = 1000 litres)
Rs. 5
Rs. 10
Rs. 25
Rs. 50
Rs. 75
Rs. 100

37 Do you think that cost of water should increase with its use?
Yes  No

38 If price is not be charged what other measures need to be taken by the Corporation to economize on water use
Reduction in the water supply hours
Introduction of metered water supply and charging above certain limits.
Controlled use of water for gardening
Educate users about importance of less use of water or don’t waste water
Any other

39. At present water supply schemes are designed @ 75 litres per person/day, what is your opinion?
It is sufficient
Not sufficient
What should be the reasonable rate

40. Are you in favour of separate sewer line for bathing and washing water which will have negligible sludge and can be used for irrigation with minor treatment?
Yes  No
D. Recycling of water

43. Are you aware of recycling of water
I know [ ] Do not know [ ]

44. Corporation’s dispose of sewerage water in the following way
- Evaporates [ ]
- Seepage in the soil [ ]
- Treated by Municipal Corporation and used for Irrigation [ ]
- Flows untreated into Rivers/drainage system [ ]
- Do not Know [ ]

45. What is your opinion about the usage of fresh water for?

<table>
<thead>
<tr>
<th>OK</th>
<th>Not OK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluses and latrines washing [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>Irrigating lawn [ ] [ ]</td>
<td></td>
</tr>
<tr>
<td>Irrigating crops [ ] [ ]</td>
<td></td>
</tr>
</tbody>
</table>

46. Corporation want to promote use of recycled water
   a) Are you prepared to use it? Yes [ ] No [ ]
      For flushing toilets [ ] [ ]
      Double flush (two tanks, 10 litre recycled and 2 litre [ ] [ ]
      For irrigating lawn [ ] [ ]
   b) If fresh water supply is charged, and recycled is free, are you ready to use?
      Yes [ ] No [ ]
      For flushing toilets [ ] [ ]
      For irrigating lawn [ ] [ ]

47. Do you think water harvesting tank (to preserve/recharge ground water) should be there in each household wherever possible?
Yes [ ]
No [ ]

E. Personal Correlates
Name (if you so desire, otherwise leave blank) Mr./Ms.______________
Address __________________________________________________________

a. Your age (in years)
Less than 25 [ ]
b. **Gender**
   Male
   Female

c. **Educational background**
   Matriculate
   Graduate
   Post-graduate
   Professional Degree

d. **Size of your family (all members including uncles/aunts living in one house)**
   Up to 2
   2-4
   4-6
   Above 6

f. **Occupation**
   Service class
   Business class
   Professional
   Industrialists
   Students

g. **Monthly income (Rs.)**
   Less than 2500
   2501-5000
   5001-10000
   10001-15000
   15001-30000
   30001-50000
   Above 50000
### Area of Plot (in sq.m)

<table>
<thead>
<tr>
<th>Area of the lawn Inside plot sq. ft. (length x breadth)</th>
<th>Area of the lawn in front of plot sq. ft. (length x breadth)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constructed area in sq.ft (1 sq yds = 9 sq.ft.)</td>
<td></td>
</tr>
<tr>
<td>&lt; 100</td>
<td></td>
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<tr>
<td>100-200</td>
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<tr>
<td>200-300</td>
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<td>300-400</td>
<td></td>
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<tr>
<td>400-500</td>
<td></td>
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<tr>
<td>500-750</td>
<td></td>
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<tr>
<td>&gt; 750</td>
<td></td>
</tr>
</tbody>
</table>
Curriculum Vitae

Aman Preet Singh Brar

104-D, Kitchlu Nagar
Ludhiana-141004
Punjab, India
91-98152-98104
e.mail: amanbrar104@rediffmail.com

Objective

To become a renowned educationist and serve the society

Academics

• Currently pursuing Ph.D. in Management from Punjab Technical University, Jalandhar

• Completed master’s in Business Administration (Marketing) with honours from Punjab College of Technical Education, Ludhiana in 2004

• Graduated in Commerce stream from Satish Dhawan Govt. College, Ludhiana in the year 2002

• Completed 10+2 from Guru Nanak Public School, Ludhiana in the year 1999

• Did Summer Training at ICICI Prudential Life Insurance on “Advisor Profiling and Recruitment”

• Did Major Research Project on “CRM Practices in Life Insurance Industry”
Teaching Experience

- Joined as Lecturer in Guru Nanak Institute of Management & Technology (GNIMT), Ludhiana w.e.f. August, 2004. Taught both undergraduate (BBA) and Post Graduate (MBA) classes

- Promoted as Senior Lecturer w.e.f. 1<sup>st</sup> August, 2008

- Handling college admissions as a key facilitator

- Incharge for building the international relations and organizer for international trips

- Incharge cultural and co-curricular activities

- Incharge for organizing the training programmes for Corporate World

- External Examiner for Punjab Technical University.

- Acted as Observer in External Examinations of Punjab Technical University during May-June 2010

International Exposure

- Visited Bangkok in 2005 and visited Tuk-Tuk Industry over there

- Visited BSB Academy, a Semi Government Body in Singapore in 2006

- Visited Macquarie University and New Castles University, Sydney, Australia in May, 2008
Seminars/Workshops and Conferences

Delivered seminars on:

- Advisor Profiling and Recruitment
- Organization Behaviour Measurement Techniques
- Quality Control Standards in India

Delivered guest lectures:

- Lectures on various topics delivered at Punjab Agricultural Management and Extension Training Institute (PAMETI), PAU Campus, Ludhiana to officers of the state department of Agriculture, Horticulture, Soil Conservation, Animal Husbandry, Diary Development and Fisheries
- Motivating Extension Personnel and Farmers
- Brand Positioning of Agricultural Products
- Human Resource Management in Extension Services
- Sales Promotion V/s Public Relation
- Personality Development
- Brand Positioning of Agricultural Products - Lectures delivered to Agricultural Officers and Farmers at District Level Bodies, Agricultural Technology Management Agency (ATMA), Gurdaspur and Sangrur
• Organized training for police personnel of Ludhiana district on “Management & Computer Use” at GNIMT, Ludhiana

Attended and Participated in discussion:


• UGC sponsored national seminar on “Knowledge Management” organized by Siri Guru Gobind Singh College, Sector 26, Chandigarh, Feb. 11-12, 2005

• UGC sponsored national seminar on “Emerging Dimensions in Financial Sector Challenges Ahead” Ramgarhia Girls College, Ludhiana, Feb. 24-26, 2005

• National Conference on “Changing Scenario in Marketing” organized by Punjab Commerce and Management Association at CSD Govt. College, Ludhiana, Feb. 27-28, 2005

• Lecture on knowledge reservoir series in “Financial Management” delivered by Dr S.P. Prashar, Director, IIM, Indore, held at Lovely Institute of Management & Technology, May 6, 2005

• Faculty Development Programme organized by the ICFAI University, Ludhiana, August 4, 2005

• AICTE sponsored “Staff Development Programme on Strategic Management in Modern Business” at Punjab College of Technical Education, Ludhiana from 24th to 31st December, 2007
Publications

A) Books

1. Mehta, Sandhya. and Brar, Amanpreet Singh., (2006) “Motivation”, Published by Punjab Agricultural Management & Extension Training Institute (PAMETI), Ludhiana, a training institute funded previously by World Bank and now by Govt. of India.


B) Chapters in Books

1. Brar, Amanpreet Singh. and Sareen, Sageena., (2006) “Farmer as Manager”, in “Recent Advances in Agricultural Technology” Published by Punjab Agricultural Management & Extension Training Institute (PAMETI), Ludhiana, a training institute funded previously by World Bank and now by Govt. of India.


7. Brar, Amanpreet Singh., (2009) “Generation and Screening of Project Ideas”, in “Planning and Managing Agricultural Projects” Published by Punjab Agricultural Management & Extension Training Institute (PAMETI), Ludhiana, a training institute funded previously by World Bank and now by Govt. of India.


C) Papers presented at Workshops and Published in Proceedings:


Brand India, Issues, Challenges and Opportunities held at Lovely Institute of Management on April 29-30, 2006


Computer:
Proficiency in Microsoft Word, Excel, Office, Mail Merger, Internet, etc.

Hobbies:
Reading Business News and Technology Updates with special reference to Telecommunication and Automobile Industry.

AMAN PREET SINGH BRAR

Dated:__________

Place : __________