**Project Title: REAL TIME RIVER WATER QUALITY MONITORING AND CONTROL SYSTEM Project Design Phase-I** - **Solution Fit Template Team ID:** PNT2022TMID35929

**Focus on J&P, tap into BE, understand RC**

**Explore AS, differentiate**

**Deﬁne CS, ﬁt into CC**

**5. AVAILABLE SOLUTIONS**

Monitoring the water quality of river using the temperature and pH sensor and calculating its quality.

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**6. CUSTOMER CONSTRAINTS**

When humans end up drinking polluted water, they make themselves vulnerable to various life-threatening illness like hepatitis and cholera.

1. **CUSTOMER SEGMENT**

The general public consuming river water for their domestic needs.

**Explore AS, differentiate**

**Define CS, fit into CC**

**7. BEHAVIOUR**

People switch to mineral water which increases their cost of living.

People form NGOs and spread awareness to avoid river water pollution.

**RC**

**9. PROBLEM ROOT CAUSE**

Proper river water monitoring protects human health and avoid the costs related to health care, productivity loss and even loss of life.

**2. JOBS-TO-BE-DONE / PROBLEMS**

How might we detect and monitor the quality of the river water since river water pollution is a global environment threat.

How will you save the river water

**Focus on J&P, tap into BE, understand RC**

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| **Identify strong TR & EM** | **3. TRIGGERS**  When customers are exposed to diseases like Diarrhea, skin diseases, malnutrition and even cancer. | **10. YOUR SOLUTION**  Developing an IOT based water quality monitoring system using Arduino and sensors which will check if the pollutants present in the river water are under the threshold value or not and displays whether the water is suitable for consumption. | **8.CHANNELS of BEHAVIOUR**  ONLINE:  The data is sent through the application for the user to know about the purity level of water  OFFLINE:  The control action is taken by the officials to make the water, pollution free. |  |
| **4. EMOTIONS: BEFORE / AFTER**  BEFORE:  According to WHO, the contaminants of polluted water may end up in the spine and cause nerve issues that may lead to lower back pain  AFTER:  Proper river water monitoring protects human health and avoid the costs related to healthcare, productivity loss and even loss of life. |