Project Title: Real-Time River Water Monitoring and Control System   **Project Design Phase-I – Solution Fit**   **Team ID:** PNT2022TMID 07524

Define CS, fit into CC

1. CUSTOMER SEGMENT(S)   CS

Who is your customer?
i.e. working parents of 0-5 y.o. kids

Locality people living near river side and river water users.

6. CUSTOMER CONSTRAINTS   CC

What constraints prevent your customers from taking action or limit their choices of solutions? i.e. spending power, budget, no cash, network connection, available devices.

Lack of awareness,cost,difficulty in implementation and understanding.

5. AVAILABLE SOLUTIONS   AS

Which solutions are available to the customers when they face the problem
or need to get the job done? What have they tried in the past? What pros & cons do these solutions have? i.e. pen and paper is an alternative to digital notetaking

Manually collecting the water sample for testing the parameters like pH,turbidity,oxygen content etc and evaluating the results.

Explore AS, differentiate

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

2. JOBS-TO-BE-DONE / PROBLEMS   J&P

Which jobs-to-be-done (or problems) do you address for your customers? There could be more than one; explore different sides.

Monitoring the parameters like pH, temperature of water and alerting the users at the time of abnormal change in parameter's value.

9. PROBLEM ROOT CAUSE   RC

What is the real reason that this problem exists? What is the back story behind the need to do this job?
i.e. customers have to do it because of the change in regulations.

Discharge of chemical and solid wastes into the river water contaminates the water as well as creates threat to the life existing in the water. Consumption of this contaminated water puts the human's health at risk.

7. BEHAVIOUR   BE

What does your customer do to address the problem and get the job done?
i.e. directly related: find the right solar panel installer, calculate usage and benefits; indirectly associated: customers spend free time on volunteering work (i.e. Greenpeace)

The users either can directly install the system and monitor the river water individually or can get the help from service centre.

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

Identify strong TR & EM

3. TRIGGERS   TR

What triggers customers to act? i.e. seeing their neighbour installing solar panels, reading about a more efficient solution in the news.

Necessity of clean and healthy water.

4. EMOTIONS: BEFORE / AFTER   EM

How do customers feel when they face a problem or a job and afterwards?
i.e. lost, insecure > confident, in control - use it in your communication strategy & design.

The consumer may initially find it difficult to operate, but later the user easily get adopted with the process.

10. YOUR SOLUTION   SL

If you are working on an existing business, write down your current solution first, fill in the canvas, and check how much it fits reality.
If you are working on a new business proposition, then keep it blank until you fill in the canvas and come up with a solution that fits within customer limitations, solves a problem and matches customer behaviour.

The IoT-based river water quality monitoring device continuously checks the pH, temperature, and oxygen content of the water. It monitors the water for trash and eliminates it by collecting each type of waste separately in a container.

8. CHANNELS of BEHAVIOUR   CH

8.1 ONLINE
What kind of actions do customers take online? Extract online channels from #7

8.2 OFFLINE
What kind of actions do customers take offline? Extract offline channels from #7 and use them for customer development.

Online: Tracking the parameters of water
Offline: Installation and maintenance of the system by removing the wastes collected.

Identify strong TR & EM