

## Project Design Phase-1 Problem Solution Fit Template

Date	7 November 2022
Team ID	PNT2022TMID05141
Project Name	Project – Real Time River Water Quality Monitoring System

### **Problem Solution Fit:**

#### Problem-Solution fit canvas 2.0

Purpose / Vision

Define CS, fit into CC	1. CUSTOMER SEGMENT(S) <span style="float: right;">CS</span>	6. CUSTOMER CONSTRAINTS <span style="float: right;">CC</span>	5. AVAILABLE SOLUTIONS <span style="float: right;">AS</span>	Explore AS, differentiate
	Farmers for farming, Food and Manufacturing Industries, General people .	Devices are needed to be deployed which takes some battery power and requires cost of establishment. It becomes a constraint when small villages don't have budget even to cater their food.	There are some techniques already present which are to be used but with the help of IOT, AI and wireless Adhoc Networks, it saves time as well as reduces the cost such that it can be scaled easily.	
Focus on J&P, tap into BE, understand RC	2. JOBS-TO-BE-DONE / PROBLEMS <span style="float: right;">J&amp;P</span>	9. PROBLEM ROOT CAUSE <span style="float: right;">RC</span>	7. BEHAVIOUR <span style="float: right;">BE</span>	Focus on J&P, tap into BE, understand RC
	<ul style="list-style-type: none"> <li>•Checking the Ph,Temperature,Turbidity,TDS Levels of water.</li> <li>• Checks whether the water is suitable for consumption.</li> <li>•Checks suitable for Agriculture Purposes.</li> </ul>	The lack of awareness in the quality of water by people is the major drawback. And it adds on to the negligence of people as well as the officials who makes the water resources polluting in a day-day basis.	Understanding the importance of monitoring River water and the need to co-operate in order to make it a safer option to consume water. The use of available resources based on social and economic issues need to be considered as a good will for the people.	
Identify strong TR & EM	3. TRIGGERS <span style="float: right;">TR</span>	10. YOUR SOLUTION <span style="float: right;">SL</span>	Extract online & offline CH of BE	
	The lack of good water management system which ensures the safety of consumers whoever uses it, based on the data obtained by using sensors and devices.	Implementing IOT based Wireless River water Quality Monitoring System which alerts the nearby locality of people using SMS regarding the quality of which is fit/unfit for consumption or for agriculture.		
4. EMOTIONS: BEFORE / AFTER <span style="float: right;">EM</span>		8. CHANNELS of BEHAVIOUR <span style="float: right;">CH</span>		
Diseases caused due to unsafe water which are consumed even by children,adults and livestock,now with the help of the river water quality monitoring, it analyses whether the water is fit for consumption.		<b>8.1 ONLINE</b> Online channels can be used to address any issues or can be used to report problems. It can even be used to recommend some better ideas.		
		<b>8.2 OFFLINE</b> Via offline channels , customers can even act as volunteers to serve for their place.		