Project Charter

*WATER LOSS & WASTE CONSUMPTION MANAGEMENT*

Contents

[Project Summary 3](#_Toc365620801)

[Scope 3](#_Toc365620802)

[Goals and Objectives 3](#_Toc365620803)

[Deliverables 3](#_Toc365620804)

[Stakeholders 3](#_Toc365620805)

[Out-of-Scope 3](#_Toc365620806)

[Schedule 3](#_Toc365620807)

[Cost 3](#_Toc365620808)

[Resources 3](#_Toc365620809)

[Project Team 4](#_Toc365620811)

[Budget 4](#_Toc365620813)

[Quality 4](#_Toc365620814)

[Flexibility Matrix 4](#_Toc365620815)

[Risks, Constraints, Assumptions 4](#_Toc365620816)

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# Project Summary

Hundreds of millions of people throughout the world lack appropriate access to one of life's most basic necessities: clean water. Despite the fact that governments and humanitarian organizations have assisted many people living in water-stressed areas acquire access in recent years, the situation is expected to worsen due to the detrimental consequences of improper water usage and the unpredictability of agricultural water consumption.

Water stress varies greatly from place to location, and in some situations, it can have far-reaching consequences for public health, economic growth, and global trade. Pressure is rising on governments to adopt more sustainable and creative methods, as well as to increase international water management cooperation.

Therefore, project will place more emphasis on water loss and waste consumption of it across the country.

# Scope

Project will cover all water resources of the country as it is aimed at monitoring water rates used per entity in the country. That is, the device that has specific characteristics will control water used by making state changes of water much quicker, collecting changes of water pressure, temperature, volume and its speed that in turn might change people mindset to using water properly and then, rediscover its reusability at other levels. Itself, the device might bring changes to the restaurants as there are always an excess use of water meaning that it is becoming uncontrollable in some ways. As water is connected to all areas, after that it might turn into huge project that might even alleviate the excess levels of water use in agriculture spheres. However, even small problems such as in the case of restaurants may resolve profound issues by stepping towards the future slowly, but confidently with the kind of such technologies.

## Goals and Objectives

* To make water consumption more manageable
* To decrease unnecessary water loss
* To impose taxes for an excess use of water
* To make changes in policies of water use
* To control water levels used per square in the country
* To make water accessible in all part of the country by regulating excess use in other parts
* To solve water-related problems (public mindset of reuse of the water, water pollution and so on.)
* To make water changes from hot to cold and vice versa much faster
* To integrate a new type of technologies into water systems (motion detectors and others)
* To transfer to reusability of the water gradually
* To create automatic system of the control of water
* To set requirements for restaurants and other places aimed at proper using of water
* To monitor water levels at all rates across country

## Deliverables

This project will lead to a production of a new type of tapes used in the houses that will control water levels used, temperature, pressure, volume, state changes and contamination levels. In some cases, it might work as a filter in order to reduce water contamination. Water level and volume control will enable to collect the data about the water leaking through the tap that in turn might be a key to strict requirement policies. Moreover, control over quick transitional change of water state will take it milliseconds to change the water from hot state to cold and vice versa stating that it will decrease the amount of water lost unnecessarily. In addition, volume control of the water implies that it needs to be controlled how much water is used per entity across each house. All the automatic system integrated into one tap also controls how fast water is leaking through tap while showing to the potential users how they can change temperature levels on their own by checking all these rates each time. In the future, these taps can contain in themselves such filters that ensure both contamination and reusability of water control as a new development for the project.

## Stakeholders

|  |  |  |  |
| --- | --- | --- | --- |
| **Role** | **MAU** | **Name and title** | **Interest/Impact** |
| Stakeholder | Water companies |  | Who will invest in production of taps |
| Customer | Public |  | Who wants secure and clean water |

## Out-of-Scope

Filter of the tap will filter the water for its reusability.(delayed for future plans)

Led-Screen on the tap or on the mirror that shows data all the time.(delayed for future plans)

# Cost

## Resources

### Project Team

|  |  |  |
| --- | --- | --- |
| Member | Role | Description |
| Tursyngali Gazimov | Coordinator | The coordinator is the person who, in a calm state, will take the whole situation in hand. Also, share all the work for everyone, depending on their specialization and academic performance. He is also the most responsible person in the team and the main speaker. |
| Miras Yessengali | Manager | The manager, he's an accountant, he's a supplier, he's the godfather. It finds resources and reads the amount of material. All his work in this project is to find parts and appliances in a suitable quantity. |
| Ayan Saginayev | Engineer | The engineer is the face of the project. He embodies the project in reality. He measures, saws, wraps, connects and checks. In short, a man with golden hands. |
| Aslan Mussakulov | Developer | The developer is the one who sits in one place all the time, that is, in front of the computer. In this project, he must write a program that should save the environment, namely water. This is the only job where you can make a mistake because everything happens only on the monitor, which means you can fix it. |

## Budget

Hard to project.

# Quality

## Flexibility Matrix

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Least Adjustable** | **Moderately Adjustable** | **Most Adjustable** | **Discussion** |
| **Scope** |  |  | **√** | As it needs just a new type of tap created that controls water levels used, temperature, pressure, volume, state changes and contamination levels. |
| **Schedule** |  | **√** |  | Other than creating it, it needs to be promoted gradually across country that might require us financing from others as well as testing it on the public for the first time. |
| **Budget** | **√** |  |  | Production itself might take a huge amount of money from us, and not all people will pay for the project that is not yes initiated across the country. |

## Risks, Constraints, Assumptions

|  |  |  |
| --- | --- | --- |
| **Risk/Contraint/Assumuption** | **Item** | **Discussion** |
| High consumption of  water for irrigation.  Limited data exchange  between authorities  involved in water quality  monitoring  The present economic  and financial situation  limits the funds  available for public  investments  Increased water demand  due to rising temperatures associated with climate change  Lack of investment in infrastructure  due to the economic crisis (wastewater treatment plants, pipelines, savingmeasures, etc).  Lack of  waste water treatment  Negligible percentage of  waste water reused.  Alerts and water  outages  due to contamination by biocides  Poor state of  water transport infrastructure. | Agriculture  Low monitoring levels  Political and economic case  Natural problem  Investing  Low management  Low reusability  Pollution and contamination  Transportation | Improving irrigation efficiency.  Increasing availability of water data to R&D activities.  Cost recovery of water related services.  Connecting the majority of the population to a water network.  Appropriate legislative framework for proper water management  Recovery of local varieties with lower water consumption |