



The Greenhouse Initiative

A solution to the food crisis in Govan

Introduction



Govan is one of the most deprived areas in Glasgow. It is a small area with central Govan only having a population of 5,860. Despite its small size Govan is home to 10% of all refugees and asylum seekers in Glasgow.

Challenge area



11%

Of people in Glasgow have experienced food insecurity in the past year.

That's equivalent to

70,000 people



This is a world wide problem with **49 million** people being affected worldwide in **46 different countries**

The UN sustainable development goals lay out 17 areas to end poverty, protect the planet and ensure that all people enjoy peace and prosperity. **Zero hunger, good health and well being** and **reduced inequalities** are all relevant UNSDGs to our challenge area



Problem statement

- Food insecurity is a massive problem in Govan and support is depended on heavily, for example the Govan Pantry, a subsidised community shop has delivered **142 tonnes** of food since April 2020 alone.
- 8.7%** of people in Govan have mental health conditions- this could be in part due to food insecurity.
- People with specific dietary requirements, due to allergies or religion, are particularly affected as often their needs are not well supported

Design criteria



Must

- Aim to support 650 residents weekly.
- Reduce dependency on external support hence making Govan a more stable area.
- Food must be long lasting



Should

- Farm type : Greenhouse
- Our design must have less than 20% of wasted space.
- Government scheme to get started aiming to become self sufficient



Could

- Benefits : Solve food insecurity, improve wellbeing, opportunities to socialize, aesthetically pleasing.
- Easy access to simple organic foods

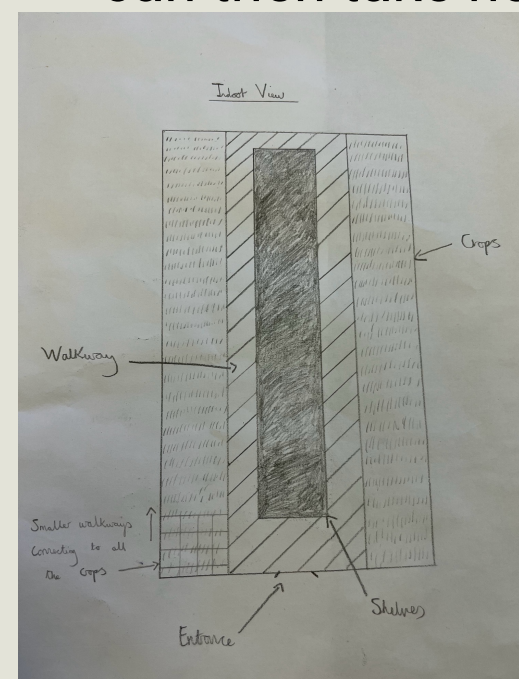


Wont

- Negatively affect the environment
- Contribute to the unemployment rate

Design solution

Located on the water in Govans derelict docks, our greenhouses will provide those struggling with food insecurity a dignified way access to foods. Making use of the environment we will filter water out of the river Clyde to give to our plants. For a massively subsidised cost people can access the greenhouse to grow vegetables they can then take home.



Next steps



Phase 1

- Build the 1st greenhouse
- Develop stable operations

Phase 2

- Build 2nd and 3rd greenhouse
- Develop stable operations

Phase 3

- Expand to new areas
- Repeat phase 1 and 2

Conclusion



The Greenhouse Initiative aims to address the food insecurity in Govan along the attributes detailed, providing opportunities to lower the rate of those affected and deprived by food.

Guesstimations

• Environmental

Locally sourced foods, reduces the reliance on fuel-intensive transportation.

• Economic

Splitting the space in the shelves and walkway we can calculate that we have 7680 meter squared. Using this we can figure out the maximum capacity of what we can grow.

• Social

A general rule of thumb is that one person can harvest 1\4 of an acre. So we will need 8 farmer plus one manager.

References

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