SDG-15 LIFE ON LAND
DESERTIFICATION IN SOMALIA

UNOSD Ministry of Environment Korea Environment Corporation YONSEI UNIVERSITY

ViFE

Virtual Farming Education
Group 4

AGENDA

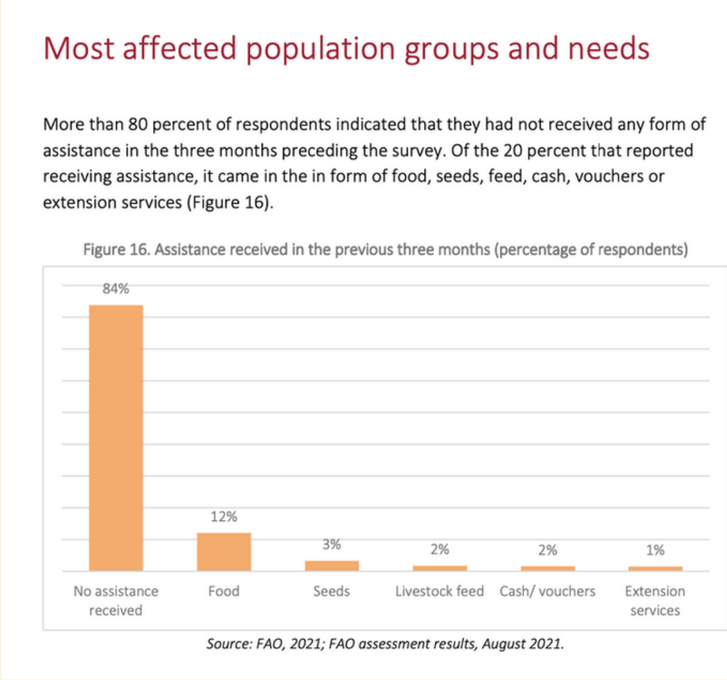
ViFE

1. Empathise
2. Define
3. Ideate
4. Prototype
5. Conclude
6. Aims

PROBLEMS IN SOMALIA

95%
Of population is illiterate

4
Straight seasons of drought



3.5M
People are suffering from food insecure due to poor crop production and loss of livestocks

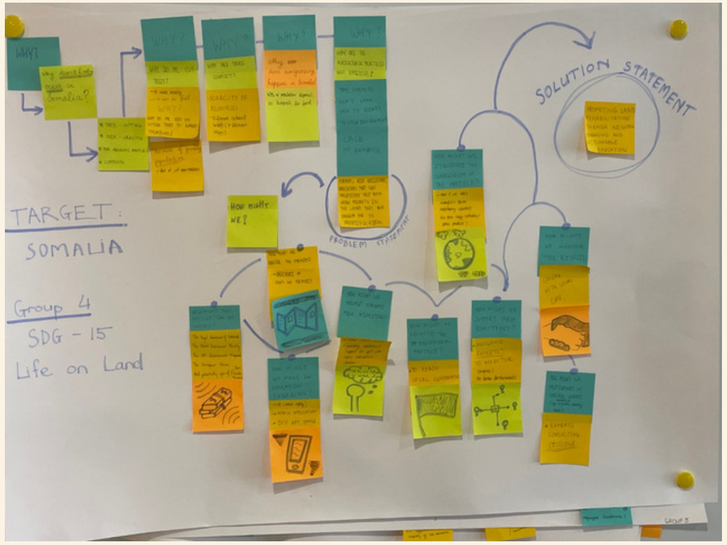
GOALS

- Lessen the impact of desertification by developing local farming capacity
- Boost agricultural productivity, leading to enhanced ecological and economic resilience.
- Improve soil fertility management practices to help soil retain water and nutrients
- Improve food security and livelihood

DEFINE

Define problems by conducting research on social, economic, political, environmental issues of Somalia

1. Why does desertification happen in Somalia? -> 4 main reasons
2. Economic: Why do people cut trees? Why do people need charcoal?
3. Environmental and Economic: Why does overgrazing happen?
4. Social: Why are the agricultural practices are not effective?
5. Political: Why does conflict break out in Somalia?



Problem Statement

Farmers need agricultural education that can significantly help them grow products in the lands that have changed due to desertification

HOW MIGHT WE

1. HMW promote & make the project engaging?
2. How might we monitor the results?
3. How might we structure the curriculum?
4. HMW support the farmers remotely?
5. HMW communicate with the farmers?
6. How might we find funding for the project?

Solution Statement

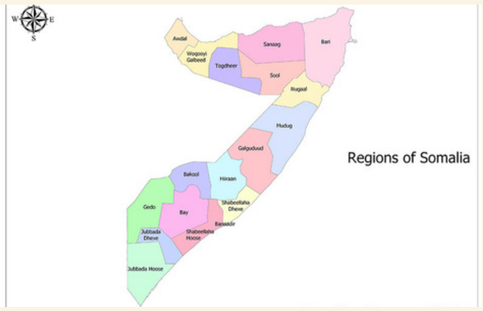
Promoting land rehabilitation through insightful, engaging and learning-by-doing education

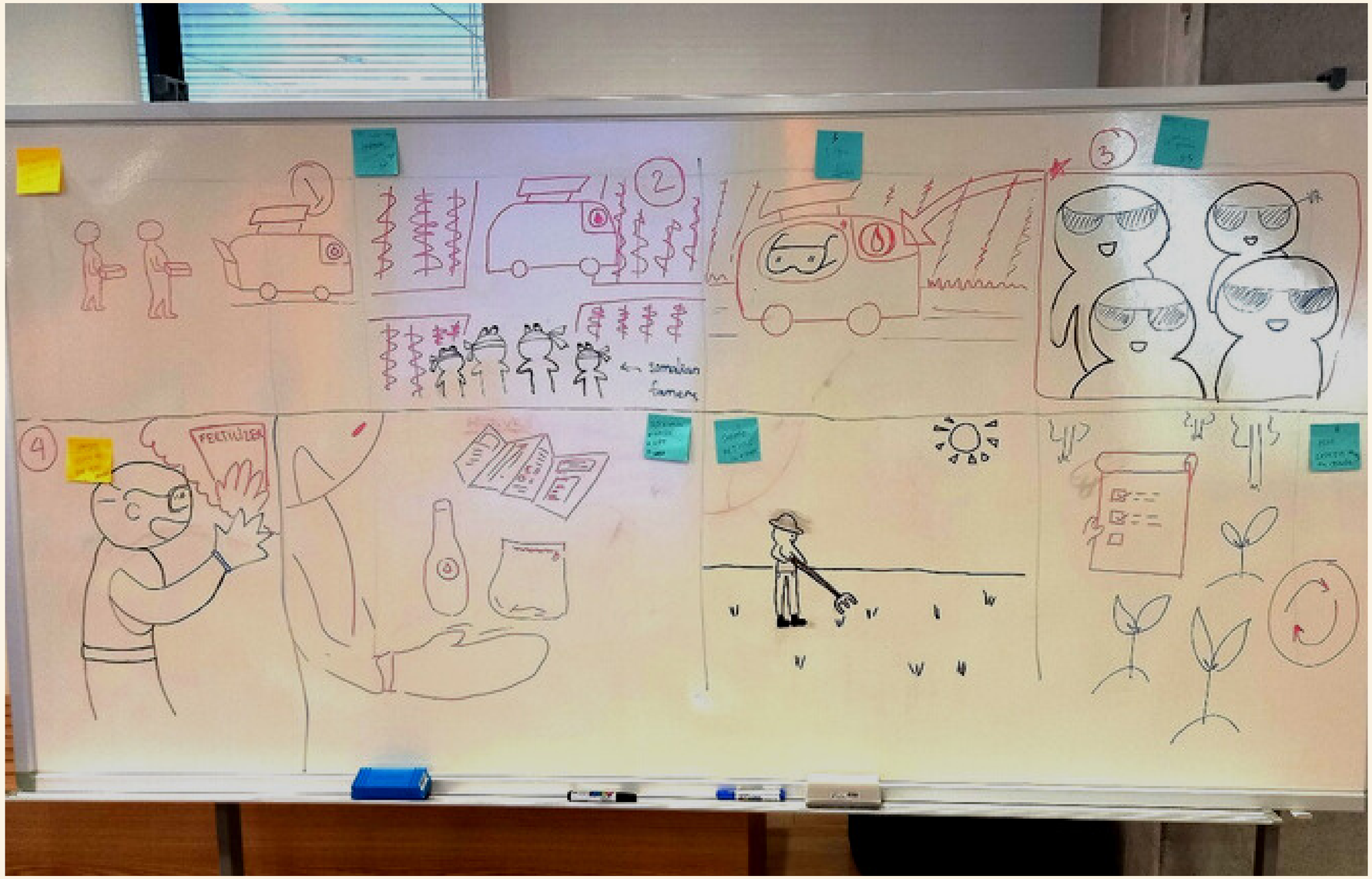
PROTOTYPE

Play around with storytelling, identify the main characters and eventually come up with the main stakeholders, key activities for our project

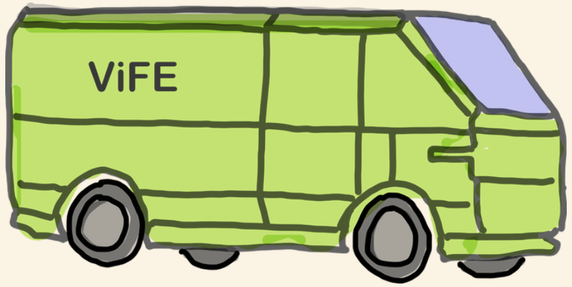
LOCATION

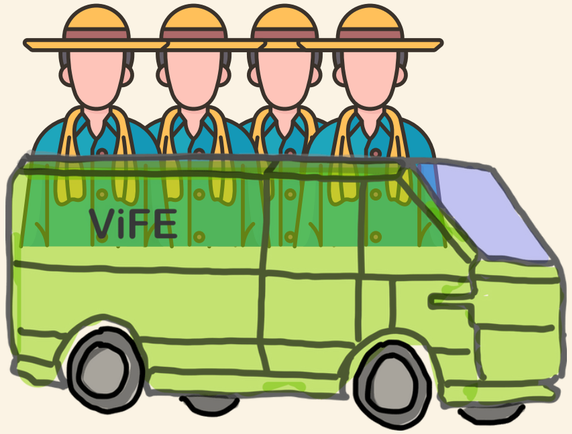
Drought-affected areas: Mogadishu (capital), Puntland, southwest and central Somalia

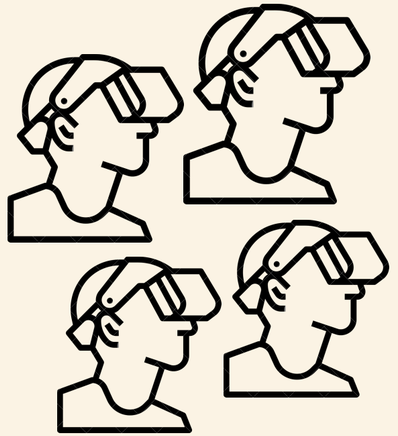




STORYBOARD

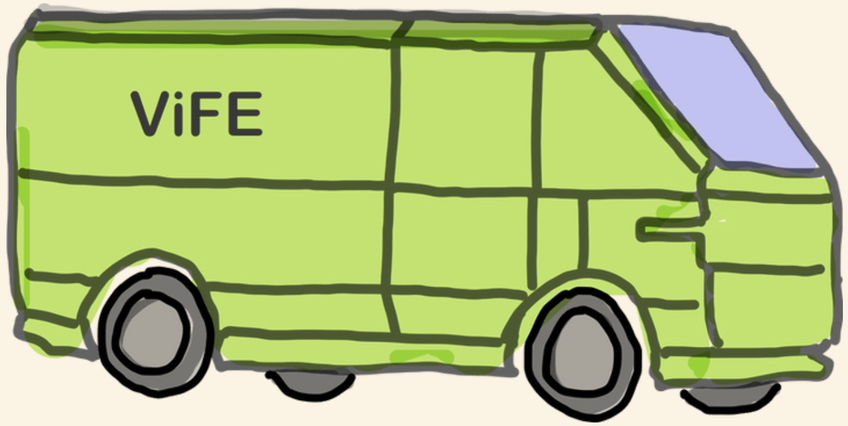




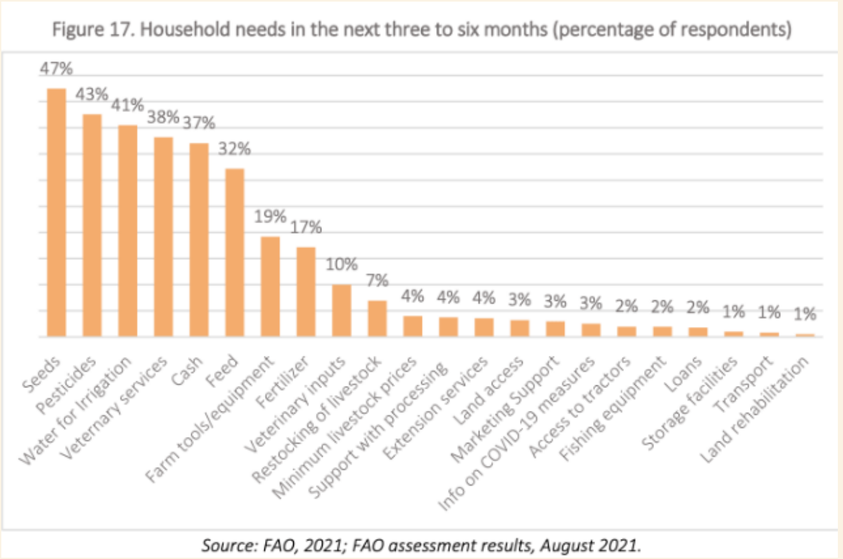


PROTOTYPE

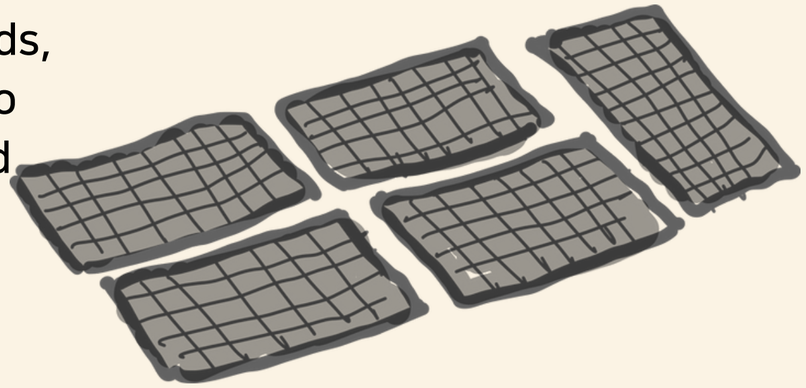
Answering HMW questions has helped our team identify how to structure our curriculum and approach the farmers



- Being mobile allows experts to access farmers easier and some of the farmers do not have personal transport
- Experience VR to learn about different fertilizers
- Consult with experts to know how to retain the biodiversity and the compatible seeds according to regions



- Use solar panels to power the van
- Present package: water seeds, fertilizers that are tailored to different soil conditions, and agricultural calendar



STAKEHOLDERS

Pick the farmers who volunteered first
First come, first serve

- Local University Experts, who can speak both English and Somalian
- Private Institution Researchers
- VR Developers
- Local Government Officials

https://www.thegef.org/
https://www.farmraise.com/
https://www.farmaid.org/our-work/grants/
https://www.cgiar.org
https://www.unep.org/
Local government and universities
Existing research institutes (SIDRA, CGIAR)
Private & Public institutions

TIMELINE

Administrative divisions of Somalia: Gobollada, or singular gobol

Somalia is further subdivided into 13 administrative regions, and 5 claimed regions which are in turn subdivided into districts. We can go to each gobollada by gobollada as the project goes on

Phase 1

- Experts have field trips to the farm, research about the soil, land, and the plants that could grow there (Empathise and gain an understanding of the situation)
- Reach out to potential partners

Phase 2

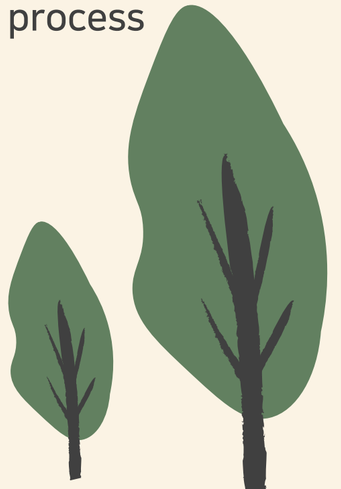
Experts get together and come up with the solutions that tailored to a specific region (fertilizers, seeds)

Phase 3

Experts get dispatched and education begins

Phase 4

Assess the overall project and make necessary changes to the process



FAQ - CHALLENGES

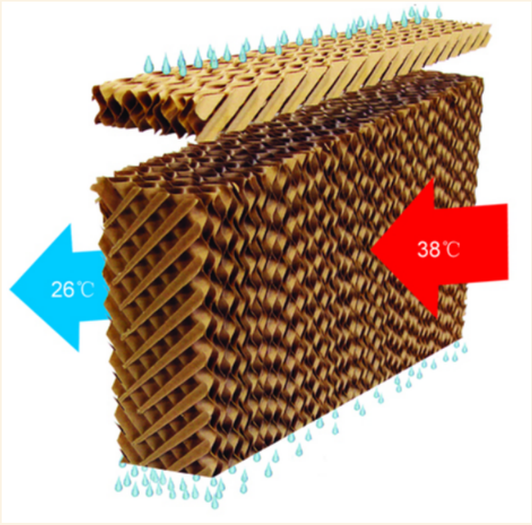
Why did we choose the van for this program, instead of having a fixed location for providing education?

Why virtual reality? Why not videos or pictures for education?

What are the incentives to prevent farmers from migrating? What's going to motivate farmers to participate in this project?

How are VR powered?

Where do we get the water for farming?

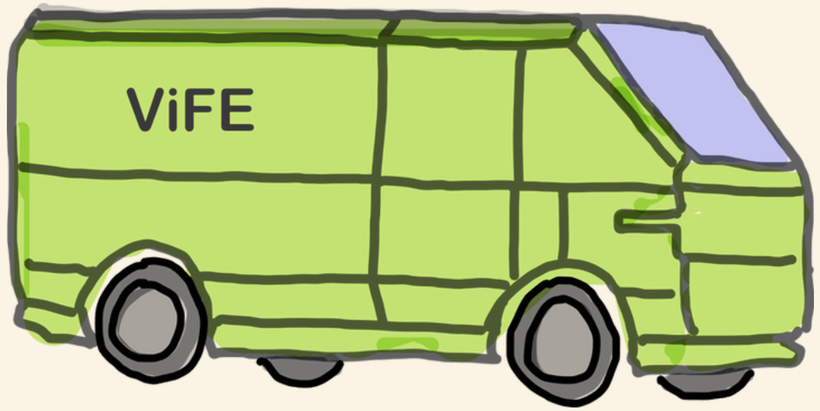


Challenges

- Skepticism about adopting new technologies to traditional ways of management
- Scarce time and resources

AIMS

- Mobility to access local areas
- To connect research & agricultural development in developing country
- More effective learning with VR
- Use renewable energy for powering
- Specifically target every farmer's needs with modified fertilizer, seeds
- Prevent farmers from migrating
- Giving farmers a way to financially support themselves



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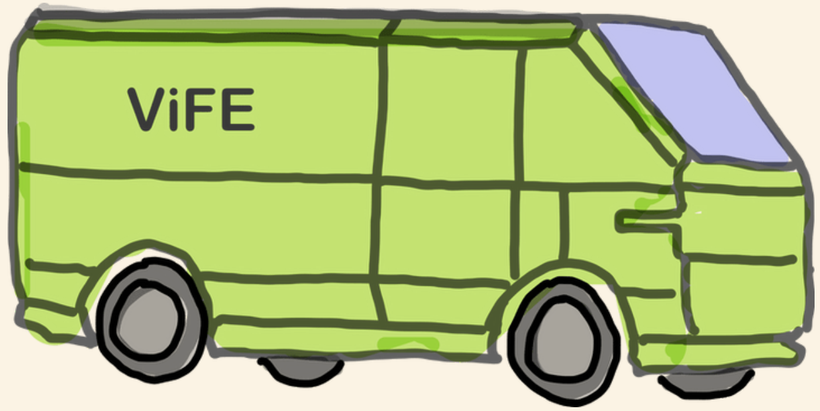
THANK YOU FOR YOUR LISTENING



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