Final Release and Conclusion

1. Overview & Progress

Functional minimum

- ☑ ~~One map~~
- ☑ ~~Basic resources: food, water, workers~~
- ☑ ~~Basic facilities: 2 or 3 crop fields, water wells~~
- ☑ ~~Basic turn structure: action points dependent on worker amount, recalculating resources at end of round~~
- ☑ ~~2 soil types: degraded & arable~~

Low target

- ☑ ~~Seasons to improve turn variety (Normal, Dry, Rainy)~~
- ☑ ~~Basic soil change system: arable soil will degrade during dry season if not protected by certain plants, half-moons will turn soil arable during rainy season~~
- ☑ ~~Differentiation between conventional and permaculture fields (plant resilience to seasons)~~
- ☑ ~~Half-moons as a buildable structure for land reclamation~~

Desired target

- ☑ ~~Basic surface water system: water will be retained in natural "pits", and half-moons, and will either dry up over time or sink into groundwater~~
- ☑ ~~Easy groundwater system~~

- ☑ ~~Crops need different levels of water, they can die if they are not cared for~~
- ☑ ~~More crops, with properties related to game mechanics~~
- ☐ Weather events: Storms, Droughts, Sandstorms… which make it harder for the player to reclaim land, or even directly degrade land occasionally

High target

- ☐ Procedural level generation
- ☐ Saving and loading games
- ☐ Visual improvements: i.e. some animals roaming around in green areas
- ☑ ~~Audio improvements: larger sound and music variety~~

Extras

- ☐ Interconnected cities / regions with specialisations
- ☑ ~~In-game "Making-Of" section with additional information about the Great Green Wall project~~
- ☐ Multiplayer Mode

Green: finished subtasks
Blue: not yet started

	Interrim Demo			Alpha Release			Playtesting		Final Release	
	CW 19	CW 20	CW 21	CW 22	CW 23	CW 24	CW 25	CW 26	CW 27	CW 28
Functional Minimum										
Basic Art Assets	🟩	🟩								
Building First Map		🟩	🟩							
Unity Setup	🟩									
Resources & Turn System	🟩	🟩								
Placing "Buildings"	🟩	🟩	🟩							
UI & Main Menu	🟩									
Sounds & Music 1	🟩									
Low Target										
Soil Change System		🟩	🟩							
Season System & Effects				🟩	🟩					
Art Assests: Seasons, Crops, new Soil				🟩	🟩					
Additional Crops				🟩	🟩					
~~Community Buildings~~				🟦	🟦					
Sounds & Music 2					🟩					
Desired Target										
Ground Water System					🟩					
Surface Water System					🟩					
Water Stats for existing Crops						🟩				
Art Assets: Water, Weather, new Crops					🟩	🟩				
Tutorial						🟩	🟩			
~~Weather Events~~						🟦	🟦			
High Targets & Finalization										
~~Procedural Level Generation~~						🟦	🟦	🟦		
~~Saving & Loading~~							🟦			
Audio Improvements								🟩	🟩	
Visual Improvements								🟩	🟩	
Feedback integration										🟩
Bugfixing									🟩	🟩

2. Final Improvements for the Release

Story

For the final version, we wanted to address the feedback we got in the previous stages. Since players were not motivated to check the story in the main menu, we added a more interactive scene with images and text appearing letter by letter. The scene can be started from the main menu and automatically starts on the game start. This scene also has a new background music.
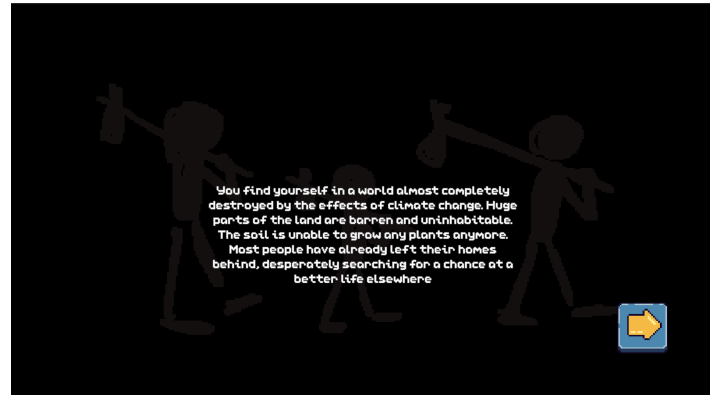
Visual Effects

Custom dust and rain/clouds effects with our own sprites were introduced as a reaction to the playtesters' feedback on the seasons' change mechanics. As users did not fully recognize the season change, we added not only text and icon indications but also some visual feedback. Those are accompanied by rain or duststorm sounds in the background.

Visual Improvements

We also implemented some minor visual improvements, such as a new background picture in the main menu, a new more readable font, created a game logo, and added other details.

Fine-Tuning Soil Hierarchy

Once again, we re-adjusted the thresholds for the soil change. Our testing sessions revealed that tiles change into water tiles too fast. Therefore, we reduced the amount of additional groundwater added to tiles for certain actions. Further, we made the dry session more powerful, meaning tiles consume even more groundwater during that season.

To keep our game more dynamic, we made sand tiles expand slowly over time further draining neighbouring tiles of groundwater. Following the same principle, we made sure that rivers and lakes sustain themselves a bit better and drain from the outside. So complete rivers or lakes don't disappear within one turn.
This ensures that big parts of the map don't change at the same time.

Next Level Button

During our playtesting sessions, we also noticed that players got confused about what they should do once they finished all the challenges of a level. We added the "Next Level" button appearing once players cleared the current level. Players can choose to continue on the current level or move on to the next.

Soil Hierarchy Info Panel

Our playtesting sessions showed players are interested in learning more about soil changes and want to see what happens to the tiles when the groundwater levels change. Therefore, we added an additional info panel demonstrating the evolution of soil.

Updated Tutorials

The playtesting sessions revealed a few shortcomings of our tutorials.
Explanations were too long and important bits of information didn't come across because of that.
As a result, explanations were split up into shorter segments so as to not overwhelm players.
Additionally, the difficulty of the first two levels was reduced to give players a better environment to learn the core mechanics of the games. The amount of starting resources was increased and small changes to the maps were made to give more 'freedom' to the players and make 'mistakes' less severe.
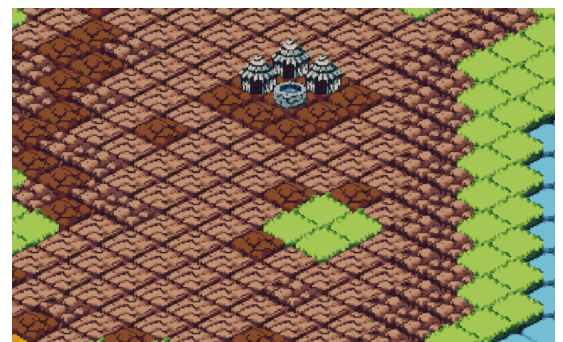
Furthermore, a few iconographic prompts to explain the camera controls were added to the first level
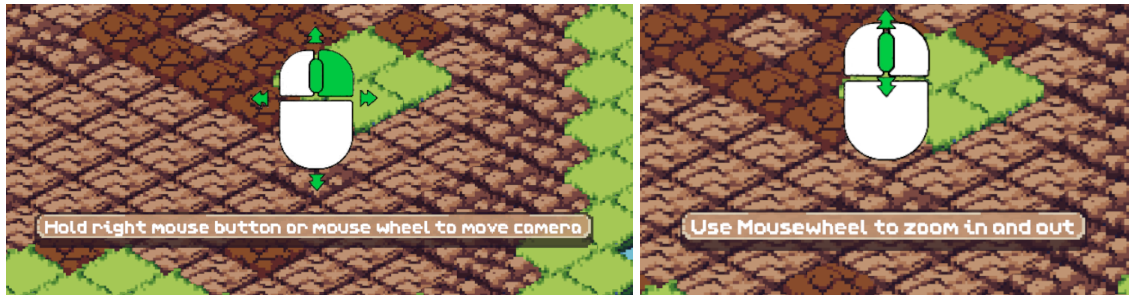
3. Conclusion

1. What was the biggest technical difficulty during the project?

We've been working with Unity and used Git for version control. Our biggest issues concerned resolving merging conflicts, especially in Unity scenes when multiple people worked on the same scene.

2. What was your impression of working with the theme?

The theme gave us direction at the beginning. It helped us decide where we wanted to go with our game. Based on the theme we came up with game genres that could work and we are interested in exploring further. From there, we developed the idea of the "Green Wall" and researched the techniques and strategies employed in real life.

3. Do you think the theme enhanced your game, or would you have been happier with total freedom?

Yes, since our team consists of people who never worked together and didn't even know each other before the project. We hadn't any game design ideas or plans at the beginning of the course. So, the theme gave us a common starting point to delve into a direction everyone is interested in and happy with.

4. What would you do differently in your next game project?

Sometimes, multiple people had to work on parts that were closely connected. Defining the bounds of each task was difficult in those instances, especially since everyone was so eager to implement features. So, next time we should define our tasks more clearly to avoid confusion.

5. What was your greatest success during the project?

We did a great job structuring our development phase. Even though we didn't meet in person often we clearly defined milestones and distributed tasks, so we met our deadlines as planned. We also succeeded in getting most of our planned work done before the playtesting phase, so we could focus on implementing the feedback from the playtesting sessions we've received in the last few weeks.

We also were able to divide tasks based on each of our interests and talents which helped everyone stay motivated and feel like they contributed an essential part.

6. Are you happy with the final result of your project?

Yes, we implemented most of the features we wanted to include in our game and had a great time working with each other. Of course, we still have ideas for additional features to enhance gameplay but considering the short development phase, we decided to stick to the core features to create a cohesive gameplay with minimal bugs. We are proud of what we could produce in that short time frame.

7. Do you consider the project a success?

Yes, we think our game is fun to play and has the right amount of educational material to not distract from gameplay which was also reflected in our playtesting sessions. Players greatly enjoyed playing our game.

8. To what extend did you meet your project plan and milestones (not at all, partly, mostly, always)?

We were able to meet most of our deadlines and milestones on time. We kept each other updated on our progress between meetings. We usually had one or two meetings per week depending on the workload we wanted to get done in that week.

9. What improvements would you suggest for the course organization?

We got a bit confused with the milestones since the milestones in the "Project Structure" document didn't match the ones on the course website. We followed the ones on the website and may have skipped one of the milestones in the beginning.