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## Growing a World Wonder

The extension activities below are designed to extend the InSight experience into the classroom. Activities are designed for the High School Grades 9-12 but can be adapted for younger students

[www.insightproject.ca](http://www.insightproject.ca)

### Objectives

- Understand desertification and the effects it can have on local & global climate.
- Understand ways people are countering desertification in developing countries
- Realize the potential of community-wide actions and their capacity to create lasting change.

### About the Film: Growing a World Wonder

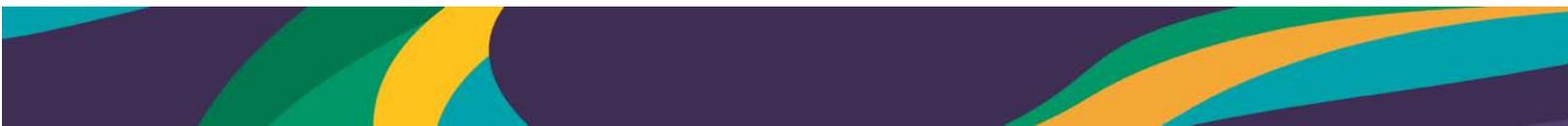
Growing a World Wonder captures the story of the Great Green Wall being built across Africa. The story follows Binta, a young Senegalese girl, as she and her family tend to their section of the Wall. The film explores the challenges Binta and her family face and discover how the project is already transforming their lives for the better. Growing a World Wonder shows the scale of the project and its potential to provide food and jobs.

The film, which first premiered at the 2015 United Nations Climate Change Conference, Cop 21 to world leaders, has since featured at major public events across the world including amongst others: the Rio Olympics Opening Ceremony, Le Geode Imax Cinema in Paris, and the Royal Botanical Gardens of Kew. In October 2016, the film was awarded the 'Best Documentary' prize at the 2016 Screen4All Festival in Paris.

**Produced for:** United Nations Convention to Combat Desertification

**Director:** Richard Nockles      **Producer:** Mitch Turnbull

**Visit:** [www.greatgreenwall.org](http://www.greatgreenwall.org)



# Extension Activity: Desertification in Developing Countries

**Objective:** Students will understand ways people are countering desertification in developing countries

## Key Definitions

**Great Green Wall:** <https://www.greatgreenwall.org/>

The Great Green Wall is an Africa-led initiative spearheaded by the African Union and funded by the World Bank, European Union and the United Nations, is aimed at growing an 8000km long wall of trees across the entire width of the Continent to transform the lives of millions living on in the Sahel-Sahara region. The initiative also aims to establish sustainable farming and livestock cultivation in the regions. The UN Convention to Combat Desertification is a key partner on the initiative.

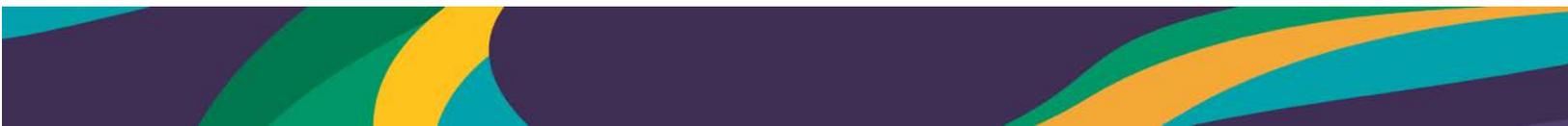
**Green Belt Movement:** <http://www.greenbeltmovement.org/>

Founded in 1977 by Professor Wangari Maathai, the Green Belt Movement (GBM) has planted over 51 million trees in Kenya. GBM works at the grassroots, national, and international levels to promote environmental conservation; to build climate resilience and empower communities, especially women and girls; to foster democratic space and sustainable livelihoods.

## Research and Share

In groups or individually, students should conduct research and share with the class answers to the following questions. Teachers are encouraged to use a variety of methods including discussion, essay, think-pair-share, presentation, or even creating a Story Map with ArcGIS. See *Helpful Resources* on the next page.

- Question 1:** What is the Great Green Wall, and what does it aim to accomplish?
- Question 2:** Who founded the Green Belt Movement? Why is she significant, and what challenges did she face?
- Question 3:** How are the Green Belt Movement and the Great Green Wall initiatives similar? How are they different?
- Question 4:** Why is the threat of deforestation more acute in the Sahel-Sahara region of Africa than it is in Canada?
- Question 5:** How are women farmers impacted by desertification differently than male farmers?
- Question 6:** In what ways has the Great Green wall impacted the country of Senegal?



## Helpful Resources

The Great Green Wall Initiative. *United Nations Convention to Combat Desertification*  
<https://www.unccd.int/actions/great-green-wall-initiative>

Great Green Wall: National Geographic. Article, maps, photos, and vocabulary support  
<https://www.nationalgeographic.org/photo/2greatgreenwall/>

Why is Africa Building a Great Green Wall? *BBC*. 26 September 2017.  
[https://www.youtube.com/watch?v=4xls7K\\_xFBQ](https://www.youtube.com/watch?v=4xls7K_xFBQ)

Gender and Desertification: Expanding Roles for Women to restore dryland areas. *IFAD*  
<https://www.ifad.org/documents/38714170/39148759/Gender+and+desertification+-+Expanding+roles+for+women+to+restore+drylands.pdf/76b3905e-f1ed-428b-8673-822fb923dcd8>

How Poverty is Contributing to Deforestation Across Africa. *Chatham House*. 7 December 2018  
<https://www.chathamhouse.org/expert/comment/how-poverty-contributing-deforestation-across-africa>

Can a 4,815-Mile Wall of Trees Help Curb Climate Change in Africa? *Time Magazine*. 12 Sept 2019  
<https://time.com/5669033/great-green-wall-africa/>

Imagining the Great Green Wall. *Institute for Security Studies*  
<https://issafrica.org/iss-today/imagining-the-great-green-wall-of-africa>

Women Sew Seeds Not Division to build Climate Resistance in Senegal. *National Observer*. 18 Jan 2018  
<https://www.nationalobserver.com/2018/01/18/news/women-sow-seeds-not-division-build-climate-resilience-senegal>

Gender Issues and Agriculture in Senegal. Cultural Practice LLC. For USAID. 2009  
<http://www.culturalpractice.com/wp-content/downloads/3-2010-31.pdf>

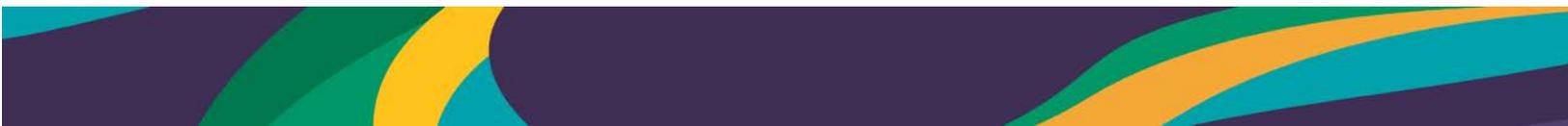
Turning the tide of Desertification in Africa: Impact on Women. *Relief Web*. 10 June 2011  
<https://reliefweb.int/report/senegal/turning-tide-desertification-africa>

## Take Action

**Objective:** Students will realize the potential of community-wide actions and their capacity to create lasting change.

Raise Awareness by celebrating **World Day to Combat Desertification and Drought** on June 17<sup>th</sup>

<https://www.un.org/en/events/desertificationday/>



# Extension Activity: Desertification and Climate Change

**Objective:** Students will listen to a Ted Talk by Allan Savory to build an understanding of desertification and the effects it can have on local & global climate.

## Key Definitions

**Desertification** – the process by which fertile land becomes desert, typically as a result of drought, deforestation, or inappropriate agriculture.

**Conservation Agriculture** – promotes the infiltration of rainwater where it falls and its retention in the soil, as well as a more efficient use of soil water and nutrients leading to higher, more sustainable productivity. It's the use of farming techniques to generally improve and maintain crop growing conditions.

**Horn of Africa** - the easternmost territory on the African Continent. Specifically denotes the region containing the countries of Djibouti, Eritrea, Ethiopia, and Somalia.

## Watch

**Watch the Ted Talk:** (22 minutes) Allan Savory: *How to fight desertification and reverse climate change*  
[https://www.ted.com/talks/allan\\_savory\\_how\\_to\\_fight\\_desertification\\_and\\_reverse\\_climate\\_change](https://www.ted.com/talks/allan_savory_how_to_fight_desertification_and_reverse_climate_change)

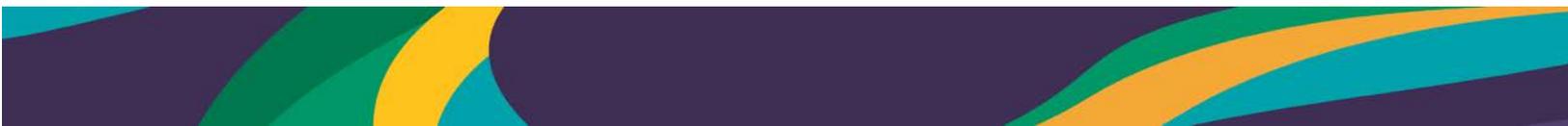
## Class Reflection

- Question 1:** Which factors did you see that contribute to desertification? Which factors reduce it?
- Question 2:** Dr. Savory proposed a system of “holistic land management”, bringing together community leaders to work the land in a more sustainable way. What actions would need to happen for this system of conservation agriculture to be effective? Which groups of people would need to connect, what sorts of agreements would they need to make, and how would they need to be upheld?
- Question 3:** How could you see this becoming a problem in Canada? On the Canadian Prairies?

## Insights for Further Exploration

In his talk Allan Savory offered a surprising solution to the spread of deserts around the globe: grazing. By reversing the transformation of grassland into desert, he said, such “holistic planned grazing” could help solve climate change.

Savory notes that such grazing is just one component of appropriate land stewardship, not a prescribed system, and its potential for success is influenced by each unique environment and context. (*W.R. Teague et al; Grazing management impacts on vegetation, soil biota and soil chemical, physical and hydrological properties in tall grass prairie. Agriculture, Ecosystems & Environment, Vol. 141, Issue 3-4; May 2011*)



Some critics have challenged the hypothesis. For example, a 2017 report by the UK Food Climate Research Network called **Grazed and Confused** (<https://fcrn.org.uk/projects/grazed-and-confused>) argues that any gains from greening after grazing are more than offset by methane emitted by the grazing animals.

In other words, the science around Savory's idea is complicated. As with every area of inquiry, research is ongoing. Search [Google scholar](#) for updates on continued research in this area.

Canada has also had, and continues to have issues with desertification, both in the past and present. Students can explore this through exploring the following articles

- **Dusting off the history of drought on the Canadian Prairies in the 1930s.** Active History. November 23, 2016. <http://activehistory.ca/2016/11/dusting-off-the-history-of-drought-on-the-canadian-prairies-in-the-1930s/>.
- **Canada re-joins UN Convention to Combat Desertification.** <https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/united-nations-convention-combat-desertification.html>

## Take Action

**Objective:** Students will realize the potential of community-wide actions and their capacity to create lasting change.

**Watch** the excerpt from *Dirt! The Film* titled [I will be a hummingbird – Wangari Maathai](https://www.youtube.com/watch?v=IGMW6YWjMxw)

Wangari Maathai (1940-2011) was the founder of the Green Belt Movement and the 2004 Nobel Peace Prize Laureate, as a result of her tireless work on environmental protection in rural Kenya. This video is her sharing some reflections on the power of an individual's actions

Break students into small groups and have them discuss actions they take that contribute to climate change. Have them also discuss actions their families take.

- What actions can I take at home to reduce my impact on climate change?
- What actions can we take at school to reduce our impact on climate change?
- What actions can we take to support communities around the globe who are affected disproportionately by climate change?

## Gain Deeper Insight

**Journey 2050.** Introduction to Sustainable Agriculture. Lesson and online simulation <http://www.journey2050.com/>

**Sustainable Agriculture: Lesson Plans.** American Farm Bureau Foundation for Agriculture <https://www.agfoundation.org/sustainability/>

