Investing in Sustainable Agriculture

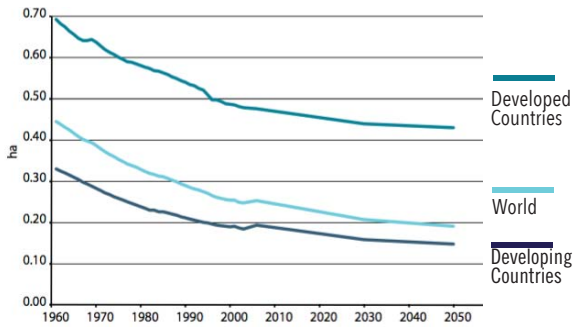
DEFINING THE PROBLEM

- Global food production must increase 70% by 2050 to meet rising demand from population growth.[1]
- At the same time, arable land per capita is steadily declining due to rapid population growth[2], thus requiring a significant increase in agricultural productivity to meet future demands *(see chart 2).*
- Conventional intensive agriculture used to meet growing worldwide demand for food and high protein diets often results in soil degradation, water pollution, inefficient use of natural resources and loss of local biodiversity.
- Agriculture is responsible for about 25% of total global GHG emissions, mainly through deforestation, fertilizers and burning biomass for subsequent cultivation.[3]
- Increasing the prominence of sustainable agriculture practices presents an opportunity to meet urgent human and ecological needs. Sustainable agriculture will form a fundamental component of the global transition to a more resource-efficient and low carbon economy.

Chart 1: Around 80 million extra people have to be fed each year

Source: U.N., World Population Prospects, FAO, Pictet Asset Management

Chart 2: Arable Land Per Capita



Sources: FAOSTAT and author

SONEN'S POSITION

Research indicates that a small number of key interventions can help improve global food security, meet future nutritional needs and improve related environmental concerns, namely water scarcity and climate change.[4] Pursuing such interventions is possible across both public and private market investments, and will advance sustainable agriculture practices globally.

GOALS

- Improve global food security
- Meet global nutritional needs
- Improve environmental sustainability

OBJECTIVES

1. Reduce the yield gap
2. Proper Management of Agricultural nutrients
3. Reduce GHG emissions

	1. Reduce the Yield Gap	2. Proper Management of Agricultural Nutrients	3. Reduce GHG Emissions
Impact Case	Current yields are 50% below realistically attainable potentials globally, indicating room for improvement in gaining agricultural yield and optimizing production in different geographies.[4]	Nutrient loss from agriculture is a major source of pollution for freshwater and coastal ecosystems due to excess application.[4]	Agriculture is a major source of global GHG emissions, largely driven by deforestation, methane emissions (livestock, rice production), N^2O emissions from fertilizer application.[4]
Public Markets	• Operators or technologies who increase productivity on existing land base, or are located in regions where productivity is low. • Increase distribution efficacy throughout value chain.	• Target production with demonstrable reductions in overall use of fertilizer application. • Improve techniques of fertilizer application for resource-intensive crops in China, India and US.	• Ensure agricultural production does not occur in deforested regions or advance forest destruction. • Pursue all interventions that reduce overall GHG emissions across the value chain.
Private Markets	• Increase productivity of existing and fallow agricultural land through improved land management. • Decrease the production disparity between rich and poor nations, particularly through technologies, practices and resources to smaller producers in low-yield regions.	• Support land management practices that reduce overall use of fertilizer application and ensure appropriate fertilization techniques. • Employ appropriate technologies for runoff recapture, tiling and drainage.	• Avoid any agricultural or grazing activity on deforested land, primarily Brazil and Indonesia, and rice production in India and China. • Pursue all interventions that reduce overall GHG emissions across the value chain.

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4. Reduce crop production for non-food uses
5. Reduce water use
6. Reduce food waste

	4. Reduce Crop Production for Non-Food Uses	5. Reduce Water Use	6. Reduce Food Waste
Impact Case	Meat and dairy consumption increasing globally; with increasing amounts of land devoted to animal feed. Current crop production for non-food uses equals 70% of total global calorie needs.[4]	Irrigation accounts for 90% of water consumption and frequently drives water stress.[4]	30-50% of food production is wasted across the supply chain. Reducing food waste of wheat, rice and vegetables and meat in the US, China and India could feed 413 million people annually.[4]
Public Markets	• Change crop allocation to feed people rather than livestock, in US, China, Europe and Brazil specifically. • Avoid exposure to non-food production for biofuels (i.e. 1st generation.	• Increase water productivity through technology and modernization. • Avoid production in regions with high-water stress or crops poorly adapted to specific geographies.	• Expand storage, transport and distribution infrastructure that can reduce waste. • Prefer food industry companies with local sourcing and distribution practices.
Private Markets	• Change crop allocation to feed people rather than livestock, in US, China, Europe and Brazil specifically. • Avoid exposure to non-food production for biofuels (i.e. 1st generation).	• Target geographies where water resources are abundant. • Pursue operators that employ water savings practices or technologies.	• Expand storage, transport and distribution infrastructure that can reduce waste. • Direct resources to businesses that prefer more local food sourcing.

Below are Sonen's impact investing guidelines in regards to sustainable agriculture :

	Issue	Exclusion	Support Best Practices	Sonen's Position
	GMO	√		» Minimize any investment activity in which GMOs may negatively affect smaller producers and/or overall ecological sustainability. » Limit investment in GMOs in private markets unless their use directly addresses issues of food security, climate change, resource scarcity or enhancing yields.
	Organic vs. Conventional		√	» With the broad impact objective of environmentally friendly agricultural production, Sonen maintains an implicit bias toward organic agriculture wherever possible. Sonen supports conventional production that explicitly embodies the principles of sustainable agriculture.
	Palm Oil and Deforestation	√		» Sonen will avoid direct investment in the production of palm oil in public and in private markets.
	Biofuels		√	» Sonen will avoid investment in biofuels or agriculture for non-food uses (i.e. first generation biofuel production). » Sonen will support second-generation biofuel production and technologies.
	Water		√	» Agricultural activities and practices must reflect local ecological sensitivities. » Promote technologies that increase water productivity and water savings, and avoid practices which further stress water resources.
	"Big Ag"		√	» To the largest extent possible, target the six key elements of sustainable agriculture as identified previously. » Sonen will pay particular attention to issues of social justice and equity across supply chains, and will have a bias toward agriculture systems that improve small-holder competitiveness and livelihoods.
	Land Grab	√		» Avoid companies or enterprises involved in usurping local land ownership in any form, and projects that deprive communities of land and natural resources needed for their livelihood. » No investments that fail to secure adequate land rights based on local laws and customs.
	Animals		√	» Sonen will not invest in companies that employ factory farming of animals or livestock. » Sonen maintains a bias toward animal husbandry practices that do not involve intensive confinement and provide a natural diet.
	Labor		√	» Preserving agricultural livelihoods across the value chain is a priority, particularly for rural and lower income populations, and small-holder producers. Particular scrutiny will be placed on farmworker labor rights and treatment, both in the US and abroad, including the right to unionize and fair-wage or fair-trade standards.

SOURCES

1. FAO: http://www.fao.org/news/story/en/item/35571/
2. Bruinsma, Jelle: The Resources Outlook: By How Much Do Land, Water and Crop Yields Need to Increase By 2015?
3. Climate Institute; http://www.climate.org/topics/agriculture.html
4. West, Pal et al: Pal West – Leverage Point for Improving Global Food Security and the Environment, http://science.sciencemag.org/content/345/6194/325

IMPORTANT DISCLOSURES