

Responsible Investments in Times of Climate Change

ir.drs. Karin Thomas



Problem statement

What (financial) institution is able to contribute
to realizing the investments necessary for
adjusting the delta regions to increase
agricultural production in a sustainable way in
an increasingly urbanized region?

Content

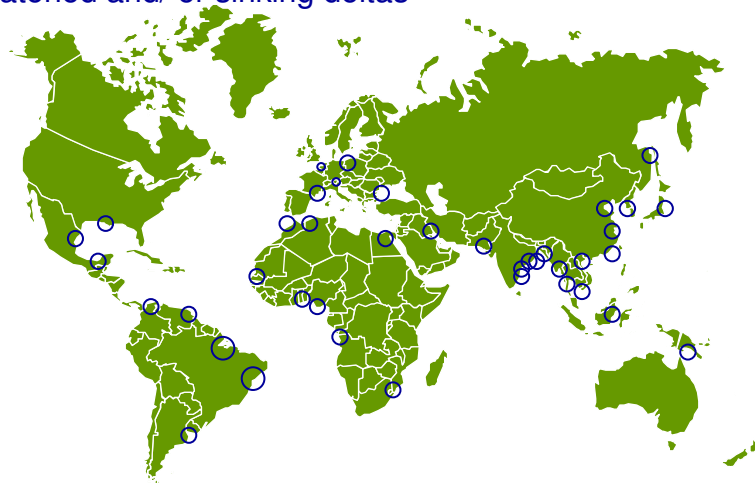
Focus on Agriculture

- Delta regions & risks
- Global developments: driving forces
- Agricultural production
- Investment opportunities
- Questions



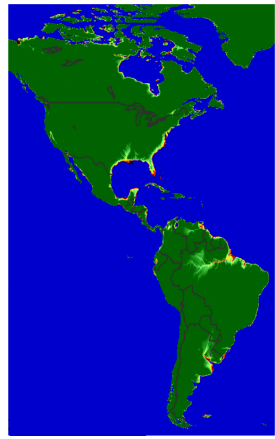
Delta regions

Threatened and/ or sinking deltas



Graph by Karin Thomas – Thomas Consulting, 2010; Sources: Nature Geoscience, Sept. 20, 2009 & Presentation dr. Pachauri, IPCC, Sept. 24, 2007

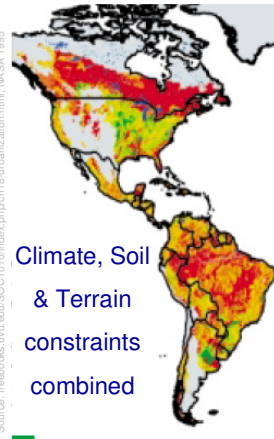
Deltas in the Americas



Above Sea Level (m)



Urbanization



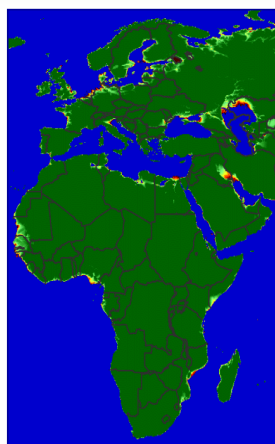
Climate, Soil
& Terrain
constraints
combined

■ No constraints
■ Unsuitable for agriculture
■ Severe climate constraints

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Sustainability meets Profitability

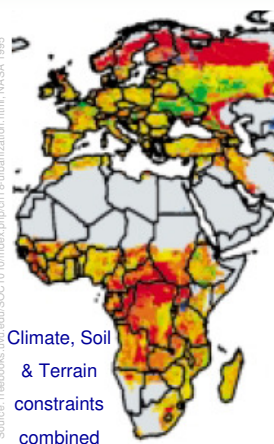
Deltas in Africa, Europe & M. East



Above Sea Level (m)



Urbanization



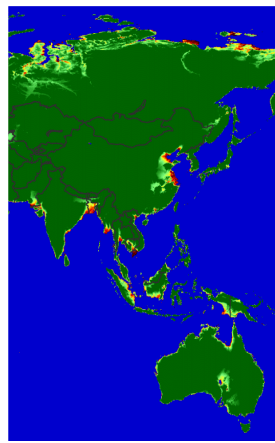
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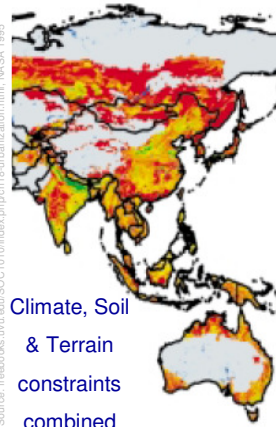
Deltas in Asian and Australian region



Above Sea Level (m)



Urbanization



Climate, Soil
& Terrain
constraints
combined

■ No constraints
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Driving forces

Supply side

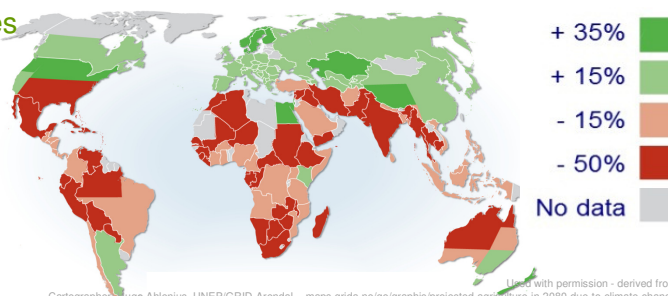
1. Climate
2. Water

Demand side

1. Food (including feed)
2. Energy

3. Research & education in agriculture

Projected changes
in agricultural
productivity to
2080 due to
climate change,
incorporating the
effects of carbon
fertilization



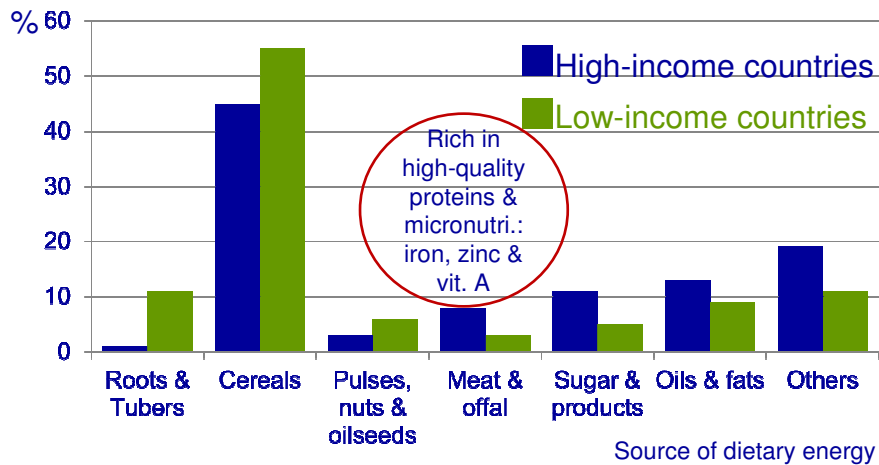
Used with permission - derived from
Cartographer: Hugo Ahlenius, UNEP/GRID-Arendal - maps.grida.no/go/graphic/projected-agriculture-in-2080-due-to-climate-change
Sources: Cline, W. R. 2007. Global Warming and Agriculture: Impact Estimates by Country, Washington D.C., USA: Peterson Institute.

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Dietary diversity



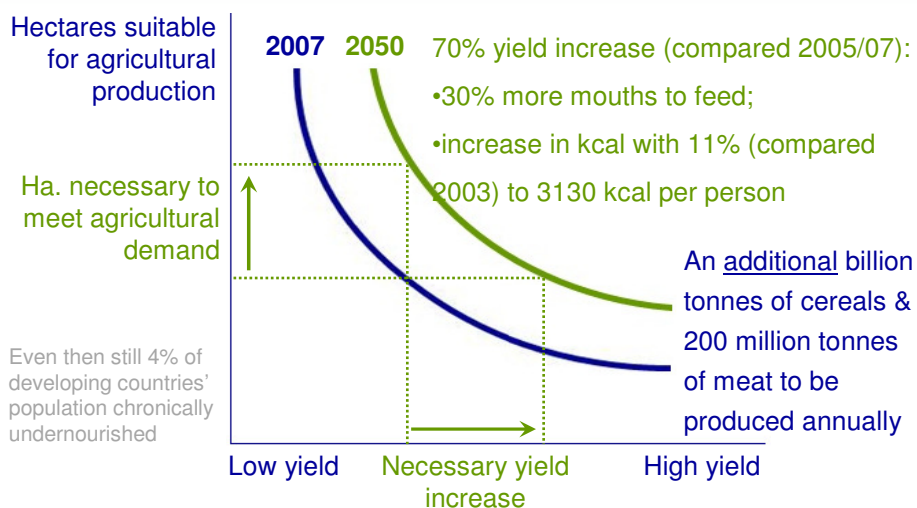
Graph by Karin Thomas – Thomas Consulting; Source: The State of Food Insecurity in the World 2008, FAO

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Agricultural production: future needs



Graph by Karin Thomas – Thomas Consulting, 2010, inspired by RaboFARM thesis; Source: The resource Outlook to 2050, Bruinsma 2009

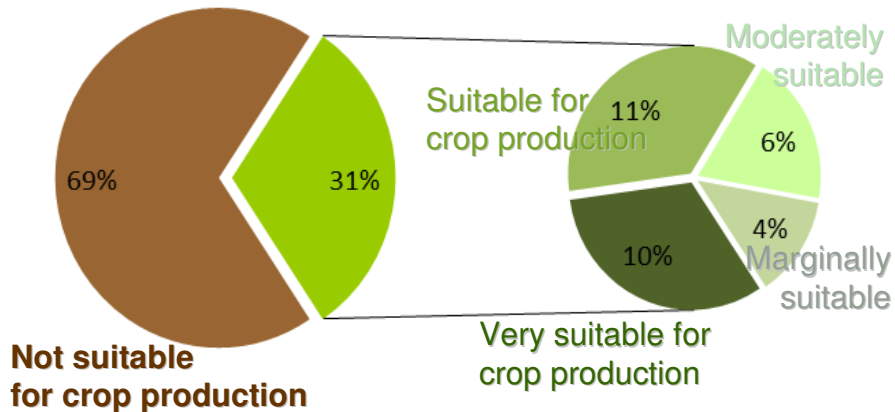
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Land versus Crop Production

Total Land Surface: 13.4 bln ha



Graph made by Karin Thomas – Thomas Consulting, 2010; Source: The resource Outlook to 2050, Bruinsma 2009

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Consequences of the developments

- Structural higher prices of basic soft commodities;
- Increase in world trade;
- Development of alternative fuels (2nd/3rd generation);
- Investments in production methods to:
 - produce “more crop per drop”;
 - increase yield per hectare.
- Bringing new land into agricultural production;
- Focus on ways to decrease environmental impact from agriculture.



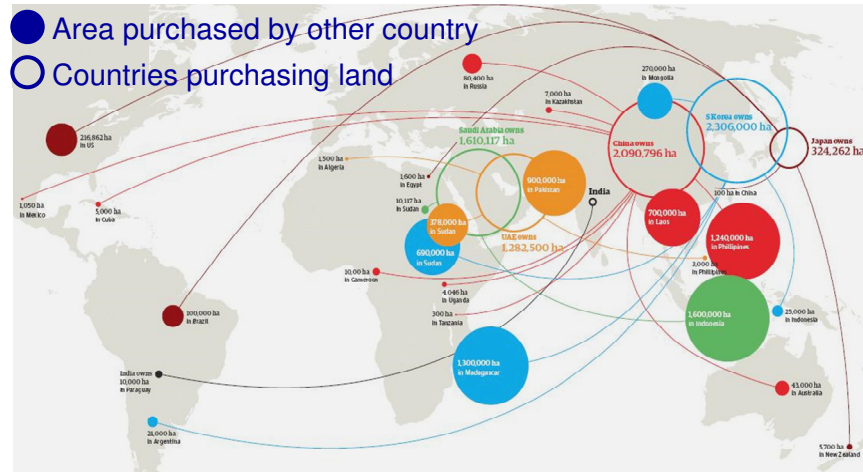
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Cross-border investments

An effort to secure own long-term food supplies



Picture source: International land deals 2009 (c) Guardian

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Land grabbing



Posted: 23 November 2009 by David Ruccio on anticap.wordpress.com

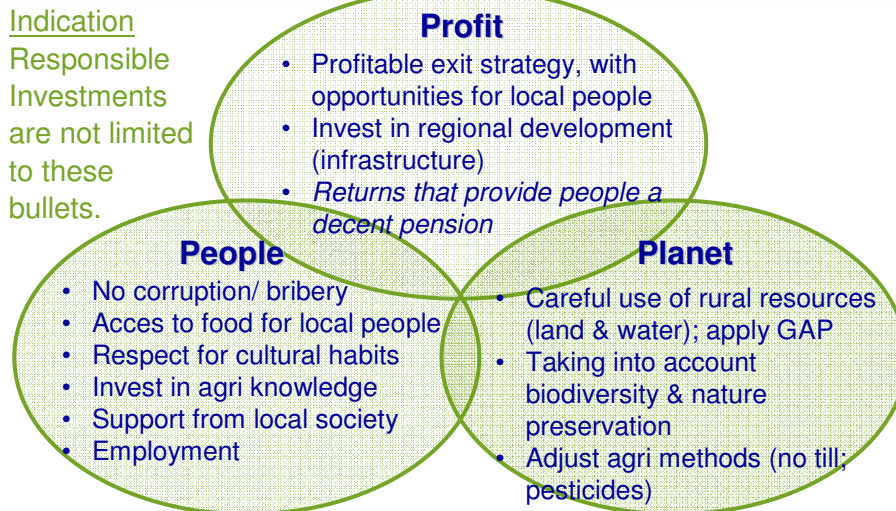
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Investing responsibly

Indication

Responsible Investments are not limited to these bullets.



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Figure made by Karin Thomas – Thomas Consulting, 2010

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Farmland as an Asset Class

- As portfolio diversification tool
- As hedge against inflation
- A tangible asset, that provides a high level of capital security and – when properly managed & well selected – low level of risk
- Farmland's attractive returns
- *"No matter how bad things get, people still need to eat"*: investment appeal in times of market turmoil



Sources: Practical experience Thomas Consulting 2009/10; Ibbotson Associates, 1991 Yearbook; Land Commodities Asset Management AG, 2009; The Economist: Green Shoots 19/3/09

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Is all land suitable for investments?

No:

- Availability of fresh and clean water
- Soil, terrain
- Climate/ weather
- Infrastructure & access to markets
- Biodiversity
- Entitlement
- Properly managed
- Risks as: pests, diseases, fires, floods



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Characteristics & Financial institutions

- Long-term investment horizon
- Liquidity limitations
- High transaction costs (high investments)
- Specialized knowledge required:
 - Management of water, cropland, grazing & pastureland (etc.)
 - Restoration of organic soil, restoration of degraded land

This restricts investors, but make it an interesting asset class for pension funds (institutional investors).



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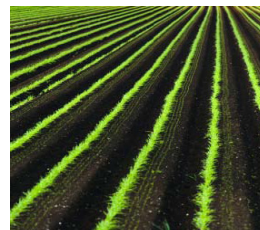
Adjusted to Delta Regions

High value 'exit' requires investments that add extra value to the assets

- Delta regions: extra battle for acres due to urbanization;
- Extra attention to water management – investments in infrastructure;
- Looking for new ways of combining agriculture and needs from people living in cities: e.g. metropolitan agriculture;
- Cooperation with innovative agricultural entrepreneurs;
- Investing with respect for biodiversity and cultural heritage.



Thank you for your attention
Questions...?



Thank you

Thank you for your interest in my presentation.

If you have any additional comments or questions on the presentation or if you want to have information of my activities, please don't hesitate to contact me at: [karin \[at\] thomas-consulting.nl](mailto:karin[at]thomas-consulting.nl)

I look forward hearing from you!

If you would like to use information from this presentation, I would appreciate it very much if you let me know where you will use the information for.

And, if relevant, to mention the following reference: Karin Thomas – Thomas Consulting, 2010. Thank you!



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About

Karin Thomas graduated as an agricultural engineer (MSc/ ir) at Wageningen University and Research centre, where she specialized in Food Quality Management. Besides that, she graduated as a Business Economist (MSc/ drs) from Tilburg University, where she specialized in Environmental Management. During her studies Karin did research for several organizations like The Greenery and Vion. Because of global interest in diverse agricultural systems Karin went to visit rural areas in developing countries; in 2001/02 she has done research on agriculture in Costa Rica.

In 2005/06 she was a project officer for the Ministry of Agriculture on a pilot of the Public Private Partnership on fisheries in Vietnam, where she worked both at the Netherlands Embassy as at the Vietnamese Ministry of Fisheries.

She returned to the Netherlands in 2006 and started her consultancy company in (Corporate) Social Responsibility, with special attention to the Food & Agribusiness. Among her assignments belonged assisting the former Minister of Agriculture, Professor Veerman, at Wageningen UR and Tilburg University, and a 1-year assignment on Responsible Investments at Rabobank Food & Agri Real-assets Management. Currently she is committed to Nyenrode Business University and Tilburg University for courses on Food & Agribusiness and supervises MSc-students who graduate on CSR-related topics. Interest in global developments - driving forces that have impact on agriculture - and practical experience in the field of Responsible Investments have resulted in the start of researching Responsible Investments in the Agribusiness.



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