

## **HLPE study on land tenure and international investments in agriculture**

HLPE project team

### **Intro**

- Set scene for study [from terms of reference]
  - Feeding the world in 2050 requires changes in multiple fields (energy, diet, economic growth, etc.) not just the “world food system”, and agricultural production.
  - This will involve improving efficiency (producing ‘more with less’) *and* better use of natural resources, not just expanding agricultural land.
  - Where and how that expansion happens depends on many factors [food and feed needs, availability of land, biofuel policies, population growth, speculation, commodity prices...].
  - Overall, we are seeing increased trade of goods and increase in purchase/lease of land outside national territory.
  - Here we assess current developments and likely future trends, alongside measures to better align developments with social and environmental constraints
  - We also assess trends in competition for land resources and propose measures to reduce the expected increase in competition for land.
  - Our conclusions consider what needs to be done where, by whom, to make investments in agriculture contribute towards socially acceptable, economically viable and environmentally sustainable systems. The long term goal is “food security and sustainable intensification”.
  - We recognise that there are significant differences in emphasis between those who stress the primacy of bio-physical constraints, and those frame the choices to be made in socio-political terms. We actively seek to highlight the different assumptions and implications for our recommendations in this report.

## **1. Framing the drivers of the revived interest in investments in land and agriculture**

### **1.1 Explorative land use options at various scales: global, continental, regional.**

#### **1.1.1 How can objectives, economic, social, ecological, best be fulfilled within the technical and biological constraints? What explorative studies are available or should be done to address this issue?**

- The key question is: how can our planet’s resources generate enough food, fibre and energy to satisfy the needs of current and future populations in a sustainable way?
- The big worry is that the technical and biological constraints are too severe:
  - Current system is not working (1bn hungry; 1bn malnourished; 1bn overfed)
  - And pressures are mounting (growing populations, changing diets, climate change impacts, higher demand for non-food, slow-down in crop yield increase)
- Number of explorative studies already done to assess how we can feed the world in 2050<sup>1</sup>. These studies focus on the biophysical parameters, which are more visible than institutional issues such as land tenure.
  - Land as a constraint:

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<sup>1</sup> FAO, WRR, Foresight, Conijn et al, Fischer and Shah, Deininger et al, Godfray et al, CAMWA, InterAcademy Council, IAASTD, Royal Society

- land is always scarce because it serves a purpose (more land for agriculture = less land for nature for example).
- Explorative studies often differ because they make different assumptions about how much land is available to bring into cultivation.
- Sub-Saharan Africa, for eg, is thought to have large areas that could be cultivated (although different interpretations of ‘available’—some may already be occupied)
- Other areas already using most of their land—eg China, Middle East, N Africa.
- Some studies think shouldn’t tap into any more land because we need to maintain vital ecosystem services and mitigate climate change.
- Productivity as a constraint:
  - Many of studies look at production potential, which varies across regions & agro-ecological context. **FIGURE: map/table here**
  - Yield gap in many farming systems: difference between what’s technically feasible and what’s actually found—due to low farmgate prices, high input costs etc.
  - Mixed evidence on whether small or large scale farms gain higher yields per hectare. An array of production systems is needed to meet location specific conditions in terms of agro-technological options and socio-economic abilities.
- Consumption and waste as constraints:
  - Trends in consumption growth and dietary changes linked to income growth
  - 30–40% food is thought to be wasted through poor transport and storage in poor countries, or because it is thrown away after purchase in richer countries.
  - Studies make different assumptions about potential savings from reducing waste...
- Governance as a constraint:
  - Lack of global governance mechanism for balancing economic, social and environmental objectives
  - Instead, we have mosaic of overlapping actors/interests: governments, companies, inter-govt agencies, civil society groups, finance agencies, research bodies.
  - Countries pursuing individual self-interest could collectively push global system over the sustainability limit.

### **1.1.2 Investigation and analysis of the dominating aspects of land use on water and natural resources. How do land use and use of external inputs and water interrelate and what perspectives may be envisaged?**

- Expanding agricultural area in many places has negative impact on natural resources
  - In Africa, increase in food comes at expense of forests, soil fertility and water<sup>2</sup>
  - Inappropriate land management can exacerbate emissions that contribute to climate change<sup>3</sup>
- Land is not the only limiting factor to expanding productivity and agricultural area:
  - Also depends on available soil nutrients, water and technology, and socio-economic conditions...<sup>4</sup>

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<sup>2</sup> Foresight SR25, 2011 citing Runge *et al*, 2003

<sup>3</sup> Searchinger *et al*, 2008; Molina *et al*, 2009; Lal, 1999; Lal, 2011

<sup>4</sup> De Wit, 1992

- ...as evidenced by growth in agricultural yields in different parts of the world<sup>5</sup>  
**FIGURE routes to increase in food volumes**
- Basic principles of plant production: water needs<sup>6</sup> & nutrient needs<sup>7</sup>
- Land use and water:
  - Agriculture accounts for 70–80% of abstracted water in developing countries<sup>8</sup>
  - Some tillage systems (conservation agriculture) generate less soil erosion/water run-off
  - Demand for water is already major driver behind land acquisitions<sup>9</sup>
  - Crops for land acquisitions (commercial farms) need water<sup>6</sup>, which could cause conflict between commercial farmers and smallholders. EG Ethiopia floricultural and horticultural farms<sup>10</sup>
  - Use of water in land acquisitions will likely have widespread downstream impacts<sup>7</sup>
  - Irrigation has increased yields, but also caused problems such as depleted water resources, erosion and loss of nutrients, and soil salinisation<sup>11</sup>
- Land use and external inputs:
  - Any use of external inputs needs to balance ecological requirements, some promising examples from Farmer Field Schools, precision agriculture...<sup>12</sup>
  - Excessive fertiliser can increase pollution of water resources & impact biodiversity. EG pre-1980s Europe<sup>13</sup>
  - Nitrogenous fertiliser generates significant greenhouse gas emissions
  - But no use of fertiliser can degrade land and soil quality & trap poor in poverty  
**FIGURE nutrient use levels around the world and nutrient depletion in Africa**<sup>14</sup>

## 1.2 Role of food security strategies at country and at regional levels

- definition of 'food security': "when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life"<sup>15</sup>

### 1.2.1 Explicit policies oriented to accessibility to food

- Ensuring food security is difficult  
**FIGURE: countries vulnerable to food insecurity**
  - Still large number of people without sufficient food, or vitamins & minerals
  - And recent increases in food & commodity prices is worsening situation.
  - Many factors that contribute to food insecurity lie outside food system itself
- Most countries have food security policies that combine: promoting domestic food production, import-export provisions, safety nets & public distribution, nutrition targets, food standards regulation, early warning systems, storage and strategies for coping with disasters.

<sup>5</sup> Van Ittersum and Rabbinge, 1997, Bindraban *et al*, 2009

<sup>6</sup> Monteith, 1990, Rockstrom, 2003, Bindraban *et al*, 2010

<sup>7</sup> Giller, 2001, Smit *et al*, 2010, Van Kauwenbergh, 2010

<sup>8</sup> Woodhouse and Ganho, 2011, citing UNDP 2006

<sup>9</sup> Woodhouse and Ganho, 2011

<sup>10</sup> Bues, 2011

<sup>11</sup> Foresight C1, 2011; Bindraban *et al*, 2006; Molden *et al*, 2010)

<sup>12</sup> Aarts, 2000

<sup>13</sup> Admiraal *et al*, 1989

<sup>14</sup> From Stoorvogel *et al*, 1993

<sup>15</sup> From The State of Food Insecurity 2001

- Examples include: Bolsa Familia, and governmental programs of purchasing food (direct acquisition and school meals), Brazil;<sup>16</sup> Integrated Food Security Strategy, South Africa; Progres-a-Oportunidades, Mexico; Supplemental Nutrition Assistance Program, US; National Food Policy, Bangladesh; National Food Security Act, India; Food safety nets, Kenya

- Investing in foreign land as a food security policy:

- EG Saudi Arabia co-investing in land abundant countries because of water constraints for domestic production
- EG Libya leasing land in Ukraine and Mali
- EG Qatar combines domestic production with joint activities elsewhere

Investing in land to generate profit, eg. Fresh fruit and vegetables, (green beans, etc.)

- **BOX** on China's national food security strategy:

- Impressive investment in domestic production and agricultural R&D
- But getting harder to fulfil country's commitment to meeting 95% of own food needs from domestic sources [growing incomes, growing demand for meat, fish, fruit etc]
- Added pressures of limited land & water, and climate change
- What China is doing re investing in land beyond its borders

### 1.2.2 Role of economic blocks such as European Union, African Union

- If individual countries play a role in food security, so too do economic blocks

- European Union

- EU takes a comprehensive approach to food security built on: increasing availability of and access to food, improving nutrition, and better crisis prevention and management.
- Has regional impacts EG Common Agricultural Policy, trade
- And also impacts more widely in EU development assistance by, for example, prioritising pro-poor and demand-led research, focused on assistance to small-scale farmers.
- Wider impacts also through EU position on biofuels<sup>17</sup>, which it is rethinking to ensure it does not produce perverse impacts on environment/livelihoods of poor people.

- African Union

- Countries committed to investing in agriculture through 'African Food Basket'. **FIGURE levels of commitment**
- CAADP pledged to invest 10% of expenditure into agricultural sector—but not all countries reached this target
- Particular focus on increasing irrigated area (only 4% now), improving soil fertility and cutting post-harvest losses.

### 1.2.3 Investment policies/principles

- Outline the purpose of investment policy, role of government in framing choices and pathways for investment, how public sector investment relates/complements private investment (small and large scale)
- In relation to food security
  - Investment policy is the mix of national legal, regulatory and institutional tools used to attract more domestic investment and foreign direct investment (and benefits from those)

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<sup>16</sup> Maluf, 2010.

<sup>17</sup> EU directive on promotion of the use of biofuels and other renewable fuels for transport, entered into force in May 2003

- Options
  - Mobilising domestic investment through public and private sources
  - Foreign investment, including EGs from countries/sectors
  - Bilateral investment agreements, including EGs from countries/sectors
- Codes and incentives
  - Difference in treatment of domestic and foreign investment
  - Relative strength of international vs domestic law
  - Role of investment promotion agencies and competition for investors
- Linking to small-scale farmers
  - Broad question: 'how can large-scale land investments benefit smallholder agriculture?'
  - Alternative question: 'how can smallholders achieve the necessary scale and productivity to feed the world while also tackling rural poverty and climate change?'
  - Key lies in public policies which augment and support investment by smallholders in their land and market systems.

#### 1.2.4 Price volatility of commodities

- Any strategy to address food security must consider influence of commodity prices and the changing structure of agri-food production and marketing systems
- FIGURE FAO food price index over time
- Volatile food prices can have major impacts on food security
    - EG 2007–08 food price rise pushed millions people into hunger
  - Lots of factors contribute to volatile prices:
    - Supply shortages: EG drought in Australia
    - Demand increases: EG growth in demand for maize for bioethanol
    - Energy costs: EG more expensive oil is pushing up food prices in 2011
    - Speculation: EG investible funds following collapse of housing market in Europe and US (separate study being done on role of speculation in food price volatility)

#### 1.3 Role of the private sector in land use

- Study of international investments in agriculture and agricultural land would be incomplete without asking how private sector, influences way land is used
- Private sector covers wide range of players using land for agriculture large and small.

##### 1.3.1 Feed and food producers

- Private sector feed and food producers include both large farms *and* smallholders
    - Difference: large farms use capital, input-intensive mono-crop systems, while small farms tend to have multi-crop systems with less capital inputs
  - Small-scale agriculture produces food for around 70% world's population;
    - $\frac{3}{4}$  world's poor live in rural areas—of 3 billion in low income countries, 2.5 are involved in agriculture, 1.5 of which live in small-scale farming households<sup>18</sup>
- FIGURE: world's food supply by producer type
- But the importance of smallholders varies across food products<sup>19</sup>
  - Large-scale plantations are important and have dominant role in many products
  - Production of food and meat are deeply entwined
    - 37% cereal production (& 34% arable land) is used to produce animal feed<sup>20</sup>

<sup>18</sup> Foresight C1 2011:9 Synthesis Report C1: Trends in food demand and production

<sup>19</sup> Eg. Smallholders produce about half the world's coffee: Clay, 2003

- And this is likely to rise **FIGURE: FAO consumption of major food items**
- Strong correlation between rising GNI and meat consumption<sup>21</sup>

### 1.3.2 Bio energy producers

- Private sector bio-energy producers are dominated by large-scale farms/plantations, illustrate trends and patterns of production for different crops, and alternative business models
  - EG sugar, maize
  - EG palm oil, rapeseed<sup>22</sup>

### 1.3.3 Finance sector

- Finance sector provides credit for land investments (big and small, including micro-credit)
- But also increasingly is an investor in land itself
- Private sector accounts for 90% of land acquisition deals to date, many domestic actors, or mixed domestic-foreign business (compared to foreign govts seeking land abroad, which is just 10%)<sup>23</sup>
- Banks supporting agriculture
  - Role of multilateral development banks, IFC and other banks in funding agricultural production and infrastructure
  - EGs of individual cases

### 1.3.4 Speculation in land

- Very little data for speculation in land. Evidence sought.
- Private sector also plays role in land use through speculation: buying land to re-sell it later at a higher price EG – evidence here?
- Lots of factors can increase speculation in land, such as expanding urban areas, expanding transport infrastructure, and growing biofuel markets
- Not only private sector that speculates: national governments, corrupt officials, local entrepreneurs<sup>24</sup>
- Speculation can be bad for agriculture/food security:
  - It can threaten smallholders because it increases risk of displacement<sup>25</sup>
  - 70% acquired lands in Africa remain untouched by planned development<sup>26</sup>
- Leasing or buying?
  - Recent reports show most land acquisitions are leasing rather than buying land
  - How does leasing relate to speculation?

## 1.4 Underlying forces explaining the surge in acquisition

- Little doubt that land acquisitions are on the increase
- Regional differences in production potential cause search for natural resources outside home country to secure food supplies<sup>27</sup>
- Popular belief of 'global land grab' where some countries (Gulf States, China and South Korea) are engaged in scramble for land (principally in Africa) to grow food for export
- But this perspective is only partially correct

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<sup>20</sup> Woods *et al*, 2010:2997 citing FAO 2006)

<sup>21</sup> Foresight 2011 C1

<sup>22</sup> Clay, 2003

<sup>23</sup> Cotula and Vermulen, 2009; increasing role of domestic investors: Campanale 2011, Nelen & Hilhorst, 2011, Deininger, 2011

<sup>24</sup> Borras & Franco, 2010

<sup>25</sup> Toulmin, 2005

<sup>26</sup> Cotula *et al*, 2009; WB, 2010

<sup>27</sup> WRR (1995)

- Interest in large-scale land acquisitions dates back pre-2007–08 price spike<sup>28</sup>
- Demand for food, feed and biofuels has similarly been rising pre-2007–08
- So: which organisations and interests are represented, at what level do they operate, for what purpose, in what global political-economic context and with what outcomes?
  - Multi-level land investments
    - Deals between regions *and* within regions
    - Important deals at intra-regional levels **BOX example**
    - Local deals too eg. involving business, govts, community members, smallholders
  - Multi-purpose land investments
    - Deals for food for export but *also* for feed, biofuels, carbon, timber and minerals
    - Media focus on deals by food insecure countries just part of the picture
    - Most deals not linked to food for export **BOX example**
  - Multiple interests involved
    - Production, processing, trade, finance
    - Lots of sources of finance and capital involved
    - EG survey of investment funds and private equity interest in African land showed more than 140 recently established entities, focusing on different regions of the world
    - Classifications of deals: direct and indirect, transnational and domestic, productive and speculative, corporate, public and farmer
  - Governments play key role
    - State usually allocates land but literature doesn't address their role enough
    - State appropriates land from local communities in different ways, EGs here
    - States argue for land investment to top up funds to invest in agriculture
    - Who/which national and local agents are responsible for allocating land?
  - Complex web of investment flows
    - Not just N-S or E-W unequal relations
    - BRICs have far-reaching and profound impact
    - More S-S and S-N investments being made (eg China investing in Angola)
    - Implications for regulation
  - Diverse outcomes, differentiated impacts
    - Actual outcomes of land deals remain uncertain
    - Evidence of jobs, livelihoods, food and incomes to rural poor – what data available?
    - Impacts differ by class, gender, ethnicity

## 2. Existing use and trends of land, natural resources and their tenure

### 2.1 Mapping of available and used land

#### 2.1.1 What are the definitions of “idle”, “waste”, “available” or “reserve” land, as well as land that is not in “agricultural use”?

- The word ‘land’ refers to a specified tract of the Earth’s surface including all attributes<sup>29</sup>
- The many ways in which terms are used to describe land use can be confusing

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<sup>28</sup> Cotula *et al*, 2009 in Africa; Visser & Spoor, 2011 in former Soviet Eurasia

<sup>29</sup> Including geology, superficial deposits, topography, hydrology, soils, flora and fauna, together with the results of past and present human activity ([www.eionet.europa.eu](http://www.eionet.europa.eu)).

- ‘fallow’ means ‘cultivated land that is not seeded for one or more growing seasons (< 5 years).
- ‘idle’ means arable land not under rotation that is set at rest for 1–5 years. It includes all types of unused land—abandoned farmland, and degraded, devastated and waste land
- The two terms can be used synonymously, but not all ‘idle’ and ‘fallow’ land is necessarily land available for cultivation
- ‘waste’ land is land that is naturally unfavourable for land-associated human activities<sup>30</sup>—it can’t be used for cultivation under any conditions
- ‘degraded’ land has reduced capacity to provide ecosystem goods and services—it can be used for cultivation but only if investment in rehabilitation
  - The world is home to about 1.9 billion ha of degraded land, some of which can be brought back into production<sup>31</sup>

FIGURE: relationship between different land

types

### 2.1.2 What are the existing mapping tools including technical instruments and what do they map (what definitions of idle, etc. land do they use)? How do they take into account customary tenure systems and collective rights systems that are not titled?

- Lots of reports and surveys have tried to assess, and map, land availability<sup>32</sup>
- Main methods can be grouped into: production ecological approaches; extrapolation approaches; economic analyses

BOX: strengths and weaknesses of main

methods

- Production ecological approaches
  - Combines biophysical production factors with systems-oriented approach to assess world food production
  - Used by WRR in 1995, and later improved by IIASA with addition of Global Agro-Ecological Zones
  - These methods use crop modelling and environmental variables to identify crop-specific limitations of climate, soil and terrain, assuming given inputs and management<sup>33</sup>
  - But their integration of information on land allocation and tenure systems is weak<sup>34</sup>

FIGURE: suitability for rain-fed crops

IIASA

- Extrapolation approaches
  - Involves extrapolating past trends to predict future developments
  - But it’s weak because doesn’t account for changes in rainfall and temperature brought on by climate change, or for exhaustion of natural resources such as water
  - They tend to overestimate speed of increase in production, while underestimating impact of agronomic interventions to improve yields
- Econometric analyses
  - Based on general equilibrium models that take economic activities as starting point to assess future developments

<sup>30</sup> Oldeman *et al*, 1991

<sup>31</sup> Oldeman *et al*, 1992; Oldeman, 1994

<sup>32</sup> Including studies by: FAO, INRA/Agrimonde, GAEZ/IIASA, SAGE, IAASTD, IFPRI, Royal Society, MEA

<sup>33</sup> Conijn *et al* 2011

<sup>34</sup> Erb *et al*, 2007; Monfreda *et al*, 2008

- But they don't integrate changing biophysical conditions well—although most recently some studies are trying to include biophysical boundaries<sup>35</sup>
  - BOX: models and different predictions
- How do any of these models above address land allocation/tenure? Drawback from maps that institutional/tenure data lacking – invisible, in contrast to biophysical parameters.

### 2.1.3 Perspectives for land use and sustainable development as a result of investment in agriculture by countries (national, foreign) or corporations (national, foreign).

- Different studies (even within single 'set' such as the production ecology approach) make different assumptions about 'available' land—whether natural lands (forest etc) can be considered potentially exploitable, for example.
  - The result is that even within this single approach estimates of 'available' land differ significantly **FIGURE: diff estimates of potentially available land**
- Yet, despite the differences, there is some agreement, for example in 'yield gaps'
  - Especially in low- and middle-income countries
  - Existing knowledge and technology could treble yields in many parts of Africa
  - But need to be careful about impacts on sustainability
- They reveal regional differences in terms of land available
  - Different regions show insufficient/excess availability of land and water
  - For eg, IIASA suggests we could expand agricultural areas by 200%
  - But this would be at the cost of natural areas, which others say we need to conserve<sup>36</sup>
- Regional differences have implications for potential self-sufficiency
  - Reallocation of resources (through virtual land/water trade) will grow further
    - Southern and East Asia lack enough land and water to be self-sufficient
    - Whereas N America, former Soviet Union, Australia, Europe and Latin America can potentially grow more food than they need
    - In Africa, production potential exceeds needs too—part of this is locked up in biodiverse savannah and forests
    - In light of these differences, we need to ensure global 'breadbaskets' connected through trade<sup>37</sup>
- Implications for sustainable intensification and food security
  - Choices need to be set within longer-term context of sustainable development
  - and to consider environmental and social costs of land expansion
    - Including impacts on emissions, biodiversity, water etc (environmental)
    - And on displacement, livelihoods, socio-cultural landscapes (social)
  - We need to build risk profiles for different patterns of investment
  - And essentially work to build a more resilient and equitable agricultural system

### 2.1.4 Use and overuse of land, unsustainable development due to wealth or due to poverty

- Poverty can lead to misuse of land and unsustainable development
  - Eg high cost of fertilisers and other manures in Africa and Latin America can lead to depleted soil nutrients or cutting down the forest
  - Eg poverty can push people into more marginal lands vulnerable to erosion

<sup>35</sup> Nowicki *et al*, 2007; Ten Brink *et al*, 2010

<sup>36</sup> Gibbs, 2010; Searchinger *et al*, 2008

<sup>37</sup> Foresight Report

- But wealth can also lead to unsustainable development
  - Eg excessive use of inputs = environmental pollution and deteriorating soil quality
  - Eg improper soil and water management can lead to saline and eroded soils
  - Eg rising demand for biofuels encourages inefficient use of natural resources
- The solution lies in 'sustainable intensification' and better use of inputs
  - Production ecological approaches point the way to some of the ways of doing this
  - These include XXX **BOX: 1–2 case studies from Africa<sup>38</sup>**

### 2.1.5 What regional differences in potential self sufficiency?

This section has been integrated into 2.1.3 above

## 2.2 Land tenure issues and trends

- Land is an important asset and source of income/employment to billions of rural dwellers in developing countries
- But their rights to this asset varies greatly depending on competition for land, market penetration, institutional and political context, and cultural practices
- Securing land rights is essential to promoting rural investment and development
- Large scale investments often undermine rights to land and resources

### 2.2.1 Trends in land tenure patterns and rising conflicts over land

- Despite the differences, there are some broad trends and challenges
- Pressure on land and water will increase in coming decades
- Those with weak rights to these resources tend to lose out
  - For land, some groups are particularly vulnerable to dispossession, including the poor, those in peri-urban areas, indigenous people, women, those reliant on common property, pastoralists and those living in areas of conflict
  - And lost land rights are difficult to re-establish
- Land and conflict<sup>39</sup>
  - Competition for land often leads to conflict, which can be violent
    - EG Rwanda, north Kivu, Cote d'Ivoire, Guatemala, Colombia**FIGURE: rising no./intensity land & water related conflicts**
  - Conversely, conflict can lead to greater competition and disputes over land
    - EG refugees and displaced people
    - EG land conflict in Brazil, Bolivia, and so on.
  - Some investments have resurfaced latent conflicts or inflamed new ones
- Securing land rights (including the guaranteeing of land rights beyond the individual property) is essential to promoting rural investment and development (well being of rural populations)
- Some of the tools that can be used include **present these in table: tool/description/example?**
  - Decentralisation of land administration
  - Community certification of natural resources
  - Land use certificates
  - Participatory land use planning

<sup>38</sup> Pretty et al 2011

<sup>39</sup> Data: CGIAR, CIFOR, IWMI, IFPRI, CAPRI-IFPRI, WORLDFISH, non-CGIAR, IIED, PLAAS, ILC, IFRI, FAO, RRI, ICRW, World Bank, individual papers eg Liz Alden, Wiley etc

- Recognition of customary tenure
- Land redistribution

### **2.2.2 Identification of the tenure status of land subject to, or targeted by acquisitions. How important is the part of available lands under claims of collective rights or under customary use? Are there gender implications?<sup>40</sup>**

- Land rights are particularly important in debate about agricultural investments because many investors target land under customary tenure, especially where there is weak governance<sup>41</sup>
  - Includes common pool resources (grazing/woodlands), public land and fallow lands, forests
  - Examples from Sub-Saharan Africa, Asia, and Latin America
- Part of the problem is absence of clear markers that show occupation and use
  - State agents often misleadingly classify lands as unproductive (Ethiopia), unused, idle (Tanzania/Mozambique) or degraded (Indonesia)—and allocate them to investors
- Part of the problem is lack of state recognition, poor implementation of existing laws and patchy registration
  - EG in many parts of Africa, <10% land has any paper documentation
- How to overcome the problems? Most oft-suggested routes include:
  - strengthen customary rights through legalisation or registration
  - land use planning and mapping to identify user groups before allocation
  - increase education and awareness to enhance legitimacy of customary regimes
- But these solutions raise their own questions/problems:
  - Does formalisation reduce uncertainty? (many countries have laws that recognise customary and local tenure but they have done little to stop large land acquisitions)
  - Does it benefit the poorest? (dangers of elite capture and exclusion of women, pastoralists and hunter gatherers)
  - Is it inclusive? (in many cases, resource users are locked out of consultation and negotiation)
  - Does land planning support customary right holders? (in some cases, it's used to dispossess people of their rights)

### **2.2.3 Legal forms of acquisitions under consideration<sup>42</sup>.**

- Legal status of land transferred
  - In Africa, most transferred land is legally state owned<sup>43</sup> (but that doesn't mean there are no other claims to ownership<sup>44</sup>)
    - Transfers can involve conversion of legally-recognized, local tenure to public/state land as a first step (eg Tanzania, Mozambique, Zambia)
    - Transfers range from short-term leases (<10a) to long term (99a) leases to full freehold rights—although many countries have restrictions for non-nationals
    - Investors can sell or sub-lease to third parties
  - In Latin America, with the exception of Cuba, there are no governmental or legal restrictions on land deals. But there is much uncertainty related to land ownership/ tenure (no titling or legal recognition);

<sup>40</sup> Data for this section: CIFOR, IFPRI, IIED, CAPRI, World Bank, IDS conference papers

<sup>41</sup> World Bank

<sup>42</sup> Data for this section: CIFOR, IFPRI, CAPRI, IIED, World Bank, IDS conference papers

<sup>43</sup> Deininger, 2003; Cotula, 2011

<sup>44</sup> Cotula, 2011:17, Cotula *et al*, 2009, Schoneveld *et al*, 2010

- In Latin America land transferred is of variable ownership—community, private/individual and state land
  - In Asia land legally owned by the state (at central and lower levels) though customary claims persist
  - Some eg of strengthening common property: conservancies (Namibia), conventions locals (West Africa), hillsides (Ethiopia), Quilombolas (Brazil), but often with little legal backing
- BOX: legal status of common property agreements**
- Land transfer processes<sup>45</sup>
    - Transfers are signed by two parties, but involve wide range of actors

**FIGURE: actors in land transfers**

    - Procedures vary across countries in terms of steps, time and cost
      - EG Mozambique need govt approval; in Ghana not required
      - EG Tanzania community consultative mechanism; Ghana consultations with chiefs/customary authorities
      - Though procedures are varied, outcomes are similar
      - Transfers mostly mediated by government
    - Most have legal safeguards for local land rights—but they’re often ineffective due to lack of transparency, corruption, limited capacity for locals to assess/analyse info etc<sup>46</sup>
    - Compensation schemes unfair, delayed payouts (including to undeserving actors), valuation methods unclear,
    - Vague benefit-sharing agreements (mostly oral) between investors and communities
  - Coordination and competition
    - Transfers involve range of government agencies, from Investment Promotion Agency to Ministry of Agriculture.
    - Coordination between investor, host govt and local community is essential

### **2.3 Relations between land tenure systems and international investments in land** **[get rid of this section—integrated into 2.2.2 above]**

## **3. Role and effects of scale (larger scale plantations or small scale farming)**

### **3.1 What is meant by “large-scale plantations” and “small-scale farming”? Specifically, where does contract farming and integrating small farmers into global markets fit? How does production model, land size and land tenure relate to both models? What have been the impacts of contract farming and integrating smallholders into local, national, regional and global markets?**

- Plantation = large, artificially established, forest, farm or estate, where crops are grown for sale (often export). It’s always a monoculture over a large area
  - Includes: fast-growing trees, cotton, coffee, tobacco, sugar cane, sisal, oil palms
  - Does not include: forage crops, large orchards (except bananas)
- Small-scale farmers, or smallholders, describe diverse group of people

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<sup>45</sup> German et al, 2011.

<sup>46</sup> Vermeulen and Cotula, 2010, Cotula, 2011, Schoneveld *et al*, 2010, Ntantumbo and Salomao, 2010

- Includes: producers who irregularly sell produce to supplement incomes, those with consistent marketed surplus after meeting household needs, small-scale commercial farmers producing for markets, those reliant on family labour (with labour intensive crops) and sources of capital; those producers characterized by mixed crops and broader livelihood diversification.
- Scale economies
  - Differ across the two groups
  - Plantations: economies of scale in buying inputs, access to markets
  - Smallholders: benefit from lower labour costs

TABLE layout principal characteristics and differences
- Contract farming
  - Spans the two and often cited as way to integrate smallholders into big markets
  - It describes pre-agreed supply agreements between farmers and buyers
  - Where do you find it?

FIGURE: extent of contract farming in different commodities
  - Where does it work, and for whom? – Evidence?
    - Most effective for highly perishable, labour-intensive crops
  - Where does it not work, and for whom? – Evidence?
    - XXX

FIGURE/TABLE: pros and cons for different actors
- If “sustainable intensification” the key goal, what evidence for either smallscale or larger scale farming better able to contribute to this?<sup>47</sup>
- Other options for integrating smallholders into global markets
  - These include XXX
  - EG Horticulture case study box?<sup>48</sup>

### **3.2 Under each of these models of production, what crops are produced and for what markets? Who among the various actors benefits from the added value generated in field production and the various stages of processing?**

- Individual crops can rarely be assigned to a single model of production or market
- But there are some broad trends:
  - EG plantations tend to dominate: fast-growing trees, tobacco, sugar cane, sisal;
  - EG smallholders dominate cocoa (70%),
- Some crops found on both (including many ‘traditional’ plantation crops):
  - Coffee: used to be mostly plantations but 50% now grown on <5ha plots<sup>49</sup>
  - Tea: India, for eg, has small plots in Nilgiri and plantations in Assam
  - Soybean: US has relatively small plots, Brazil has big plots
  - Oil palms: mono-cropped in Indonesia, but in Ghana grown mostly by independent farmers
  - Cotton and rubber trees have also both seen shift from plantations to smaller plots
- Who benefits from production and processing?
  - Most benefits captured by large multinational companies upstream in supply chain<sup>50</sup> - Evidence?

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<sup>47</sup> Pretty et al 2011

<sup>48</sup> World Bank, 2004, Neven and Reardon, 2004, Smith *et al*, 2004, Key and Runsten, 1999, Reardon and Barrett, 2000, Reardon *et al*, 2003, Kirsten and Sartorius, 2002, Delgado, 1999, Weatherspoon *et al*, 2001, Minten *et al*, 2006

<sup>49</sup> Clay, 2004

- But there are examples of where farmers in developing countries can capture value added<sup>51</sup> - Evidence?

### **3.3 What are the trends in investment in large-scale plantations and in small-scale farming? Who are the investors under each model? What are the respective drivers of investment? What rates of return are expected?**

- Most land investment (in Africa) is concentrated in plantations, based on concessions and leases
  - But there are examples of investors engaging directly with local farmers
    - EG Tanzania and biofuel investment
    - EG Lonrho (pan-African conglomerate) and contract farming in Angola
  - Investors include: domestic and foreign private, sovereign wealth funds, state-owned entities<sup>52</sup>
    - Aims, methods used and geographical origin among these varies
- FIGURE/TABLE: profile of investors in land**
- These investors are driven by range of factors, including:
    - Increasing land prices (= speculation)
    - Instability and apprehension in traditional capital markets<sup>53</sup>
    - Payments for ecosystem services, EG REDD
    - Concerns to reduce emissions and secure energy supplies (= biofuel investment)<sup>54</sup>
    - Search for water<sup>55</sup>
    - Food companies securing production capacity in risky market
    - Rising populations<sup>56</sup>
  - The rate of return on these investments is not well documented—but generally, investors would expect a low but guarantee long-term return
    - EG plantations often have high upfront costs and 10-15 years lag for returns to flow
    - Anecdotal evidence for these types of investments indicate 20-30% annual return
    - But some report up to 60% annual return (in untapped markets with little competition)<sup>57</sup>
  - Even less evidence on returns to investment by smallholders
    - Although some examples show that these farmers build up portfolio of assets and activities to diversify incomes<sup>58</sup>

### **3.4 What are the economic, social, gender and environmental impacts of each of these models? e.g. on rights, gender, access to land, conflicts and political unrest, employment, migration, biodiversity, nutrition, etc.**

- Some people suggest a neat dichotomy between the two models re economic, social and environmental impacts, where:
  - Plantations = conflict, unrest, undermine women's rights, reduced access to land

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<sup>50</sup> Vorley, 2003

<sup>51</sup> Vermeulen & Cotula, 2010

<sup>52</sup> Cotula *et al*, 2009

<sup>53</sup> Cotula *et al*, 2009; Campanale, 2011

<sup>54</sup> Smaller and Mann, 2009:4

<sup>55</sup> Smaller and Mann, 2009:5

<sup>56</sup> Lutz and KC, 2010:2779

<sup>57</sup> World Bank, 2001:13

<sup>58</sup> Toulmin, Mortimore, Tiffen, Reij

- Small-scale farming = stronger rights, support to women, access to land for poor, greater biodiversity, better nutrition
- EG XXX add in some examples here XXX
- But , each form demonstrates a wide array in practice.
  - Plantations/large-scale investments can be beneficial in terms of improving women’s earning power and autonomy through paid work, improving employment opportunities and household incomes.
  - Smallholder systems can offer low yield, poverty traps especially for women, degrading soils and biodiversity
  - Location specific factors: agro-technical, political and socio-economic conditions shape the opportunities and constraints facing large and smallscale systems of production
- Some of the key factors that influence to what extent local people get a better deal include:
  - XXX add in list/analysis of factors here XXX

TABLE: Ghana GOPDC presentation

## 4. Mapping of instruments (technical, political, corporate) that influence land use and of their use at different aggregation levels.

### 4.1 Land policies, property rights, land lease, use of external inputs

- It’s important to have appropriate state land policies and clear property rights to protect poor
- But it’s not enough (see section above about poor losing out despite property rights)
- At the end of the day, whether land tilting, reform or land leasing works depends on land-based power relations, political will to implement reforms/laws, society’s capacity to make demands, within given country or region
  - EG land titling can benefit poor people or not [add specific example] – titling program in the Brazilian Amazon.<sup>59</sup>
- Power relations result in four broad types of policy: A. redistribution, B. distribution, C. non-redistribution, D. concentration **FIGURE: types policy**
- Pro-poor policies avoid types C and D, while promoting A and B
  - EG add in case study to illustrate this argument

### 4.2 Environmental Impact Assessments

- These assess possible positive/negative impacts of a proposed project on environment
- They are useful in ensuring decision makers choose sustainable projects
- Many international sources of funding (eg development banks) require projects include an EIA
  - And that project includes mitigating measures to counteract ‘unacceptable’ impacts
- But they’re not always easy to do:
  - Difficult to: define boundaries (time and space), value cost and benefit streams, define whose interests count
- And they’re not always effective:
  - More powerful interests at play mean projects often go ahead even if EIA suggests a halt

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<sup>59</sup> Oliveira, 2011

### 4.3 Instruments related to the Right to Food

- Right to food is enshrined in ICESCR (ratified by 160 states)
  - It includes respecting ability to individually or communally cultivate land
- Similarly, The Voluntary Guidelines to Support the Progressive Realisation of the Right to Adequate Food in the Context of National Food Security also puts emphasis on securing access to productive resources
  - Includes enabling food producers (esp women) to earn a fair return on their labour
- Right to food has led to number of instruments, including EG XXX

### 4.4 RAI Principles

- World Bank has drawn up RAI principles as guide for investors to respect rights, livelihoods and resources **BOX: of the RAI principles?**
- They apply particularly to large-scale farmland acquisitions
- But they have been criticised by CSOs, researchers and governments
  - For eg, it's easy for many large land deals to pass the RAI checklist, so the process ends up facilitating rather than blocking problematic deals

### 4.5 Human rights instruments, “Minimum human rights principles applicable to large-scale land acquisitions or leases” suggested by the UN Special Rapporteur on the Right to Food

- One way of avoiding types C and D is to use human right instruments to influence land use
- These instruments include XXX add in examples XXX
- But they will only be effective if governments are committed to respecting them, and international institutes are committed to promoting them
- As it is, human rights instruments are not strongly used in-country **BOX: potential of civil society (eg of La Via Campesina)<sup>60</sup>**

### 4.6 Draft Voluntary Guidelines on Responsible Governance of Land and Natural Resources

- These guidelines build on the voluntary guidelines to support progressive realisation...
- Currently under consultation, they aim to provide a framework for responsible tenure governance that supports food security, poverty alleviation and sustainable resource use
- They include accepted principles and practice **BOX: content of voluntary guidelines**
- The process for implementing the guidelines consists of XXX
- The guidelines could help promote types A & B if XXX
- But critics suggest that they might not work because of XXX

### 4.7 Final Declaration of the International Conference on Agrarian Reform and Rural Development

- This declaration urges countries to secure access to and control over land for smallholders
- It emphasises role of agrarian reform in fighting hunger and respect for human rights<sup>61</sup>

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<sup>60</sup> Edelman and Carwill, 2011

<sup>61</sup> Monsalve Suarez, 2010

- The declaration suggests:
  - Pushing agrarian reform to secure access to land
  - Increasing support to peasant farmers, rural workers and landless peasant orgs
- In practice, the declaration has helped/not helped move towards types A & B
  - Add in empirical example here

#### **4.8 United Nations Declaration on the Rights of Indigenous Peoples**

- This is eg of international law making specific provisions for indigenous peoples
- It guarantees these peoples' right not to be forcibly removed from their lands and commits governments to preventing (or redressing) any action that dispossess them
- It also includes recognition of the spiritual relationship of indigenous peoples with their land and gives them the right to use, own, develop and control them
- In theory it commits countries to legally recognising and protecting these lands—and should promote Types A&B
- In practice, opinions differ as to the Declaration's success in doing this
  - Add in empirical example<sup>62</sup>

#### **4.9 International standards on the right to housing and prevention of forced evictions**

- These provide practical tool to help states develop policies, laws, procedures and preventative measures against forced evictions and to provide remedies should prevention fail
- But whether they have effectively promoted interests of the poor is widely debated
  - Add in empirical example

BOX:  
guidelines

#### **4.10 Tools related to Corporate Social Responsibility**

- These include 'roundtables' on a growing number of commodities such as soy, forests, oil-palm, sugar and cotton
  - They bring range of actors together including corporations, NGOs, banks etc
  - They aim to agree principles to guarantee the commodity is produced in a way that is environmentally and socially 'acceptable' (that it meets agreed standards)
  - And usually involves a certification process and independent audit
- They raise number of issues that influence land use:
  - Who sets the standards and what role is there for smallholders?
  - How effectively can standards be implemented?
  - What is the government's role?
- In practice, which of these tools have helped/not helped promote Type A&B policies?
  - Add in empirical example

#### **4.11 Taxation tools and policies**

- Taxation or subsidies to different inputs to agriculture—land, labour, capital—will have big impact on investments and returns in the sector
- Tax on inputs tends to be low:
  - on idle agricultural land could help reduce speculation, but it is rare
  - on agricultural labour (eg when farmers have to pay additional costs like social security on each person employed) encourages capital-intensive farming
  - on agricultural inputs tend to be low or non-existent

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<sup>62</sup> Sawyer and Gomez, 2004; Edelman and Carwill, 2011

- Although tax on outputs is common—eg export levies on commodities like cotton, cocoa etc
  - Difficult for smallholders to avoid these, although large companies quite often can

#### **4.12 Direct and indirect subsidies**

- It's more common that agriculture be subsidised
- In EU & US have wide range of subsidies, from guaranteed prices, allowances on capital investments and preferential pricing of inputs like fuel and fertiliser
  - Result is higher prices of land
- In China, fertiliser is subsidised and rural dwellers pay less tax
  - Result is XXX
- In Africa, some countries have fertiliser subsidies
  - EG Malawi, where result has been dramatic improvements in yields and food security
- If land gets subsidised through significant payments for ecosystems, it will like increase in value, attractiveness and price to investors (EG. Risks associated with REDD payments)

### **5. Expected Recommendations, inter alia**

- Be clear about message: goal is food security and sustainable intensification
- Be clear about audience

#### **5.1 What policies are possible and which instruments can be applied to align large scale investments with country food security strategies?**

#### **5.2 How do they account for scale?**

#### **5.3 What are the necessary conditions for making each of these models (small scale and large scale) a success (e.g. policy environment, tax system, direct and indirect subsidies, etc.)?**

#### **5.4 What evidence exists to show that win-win scenarios are possible i.e. that both development and profit objectives can be achieved at optimum levels? What type of investments in what agricultural systems will work best where?**

#### **5.5 How to break unsustainability trends?**

#### **5.6 Recommendations for research and development?**

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