Food Crisis and an approach to making changes

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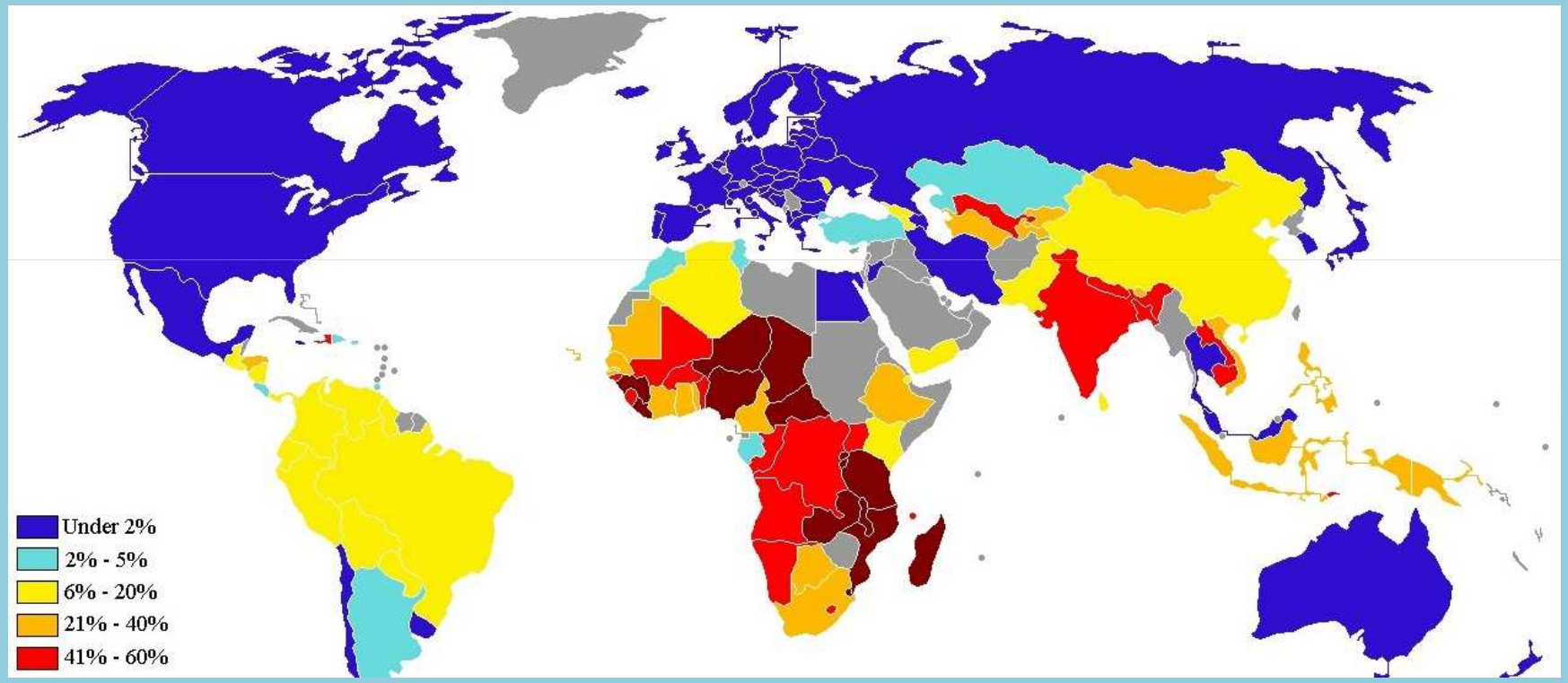
What can Anthropologists and related others contribute

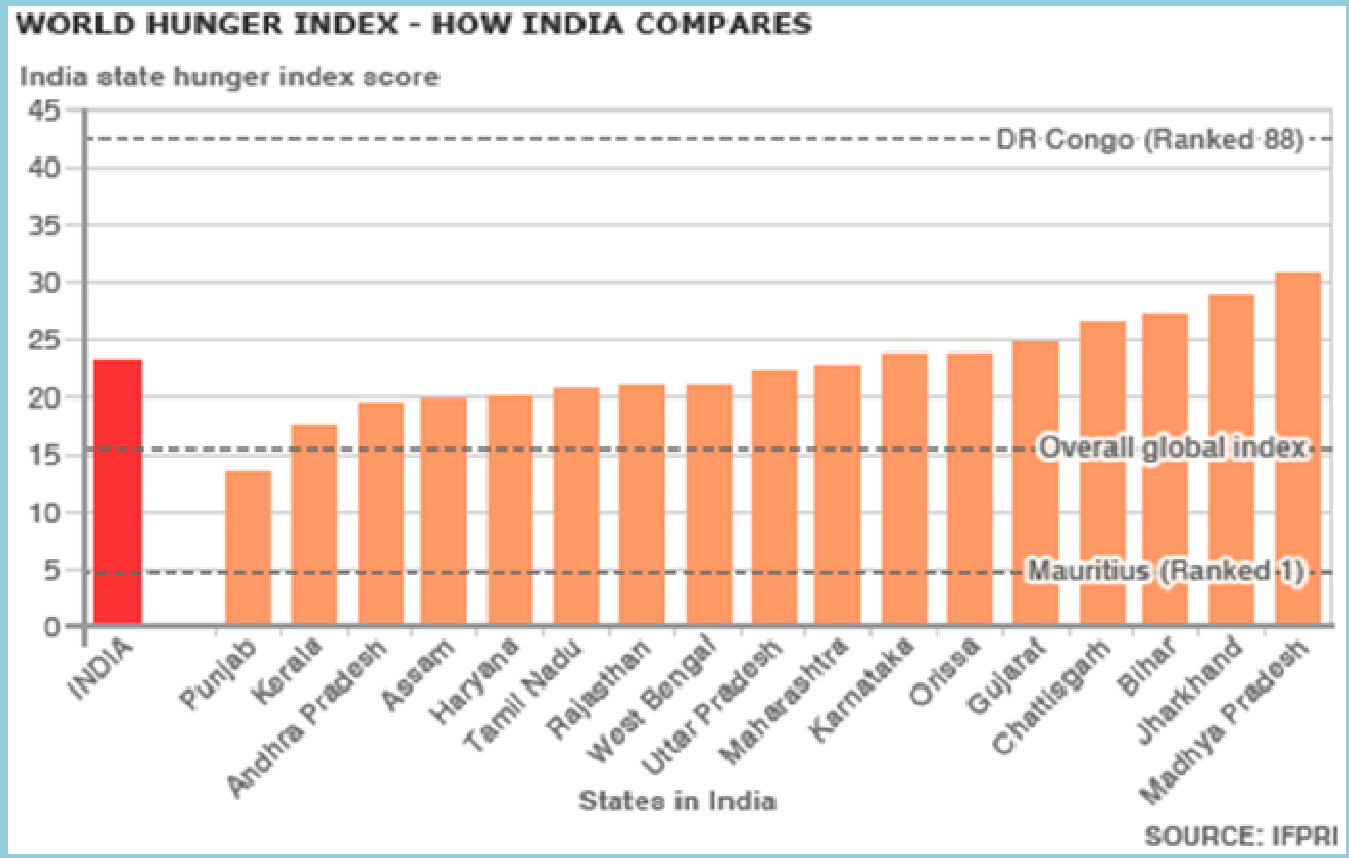
Changes since 2010

- Significant increase in absolute number of human being facing persistent hunger and/or severe malnutrition. Increase in both India and the US
- Children account for more than half of these
- Role of speculation and gamboling on what are called “commodities”
- Questions od distribution both of food and of land to produce this food loom over all heads

Percentage of people living on less than $1 a day (2007-2008)



By State: Hunger Index in India in 2008



Getting Rich on Hunger

Role of ag traders

1. Getting banks and pension funds to bet on “aduki beans, leveraged soya beans, wheat, rice, etc.
2. 2. high prices translate directly into misery and malnutrition So how did investors get their hands on food

What does this all mean?

- Who are the Food Speculators: Investment Banks, Pension Funds (including TIAA-CREF), Hedge Funds, Brain Traders and rich individual traders
- AS noted in New Internationalist, with growing public revulsion at arrogance of banks, time is ripe for a clamp down on speculation.
- AS noted: right now opposing sides are “squaring up.” With Wall street, IMF, Brazil and City of London on 1 side, and French and Dominican Republic calling for limits.
- Is food for eating or for indexing and leveraging or “betting”??

Questions raised in 2008-9 by Norwegian Report on “Viable Futures”

- What kind of food production can:
- 1.drastically reduce poverty,
- 2. reduce climate change and cool the planet,
- 3. restore biodiversity, soil fertility and water resources,
- 4. improve livelihoods and provide employment for billions of people, and
- 5. produce enough good and nutritious food for 9 billion people or more?

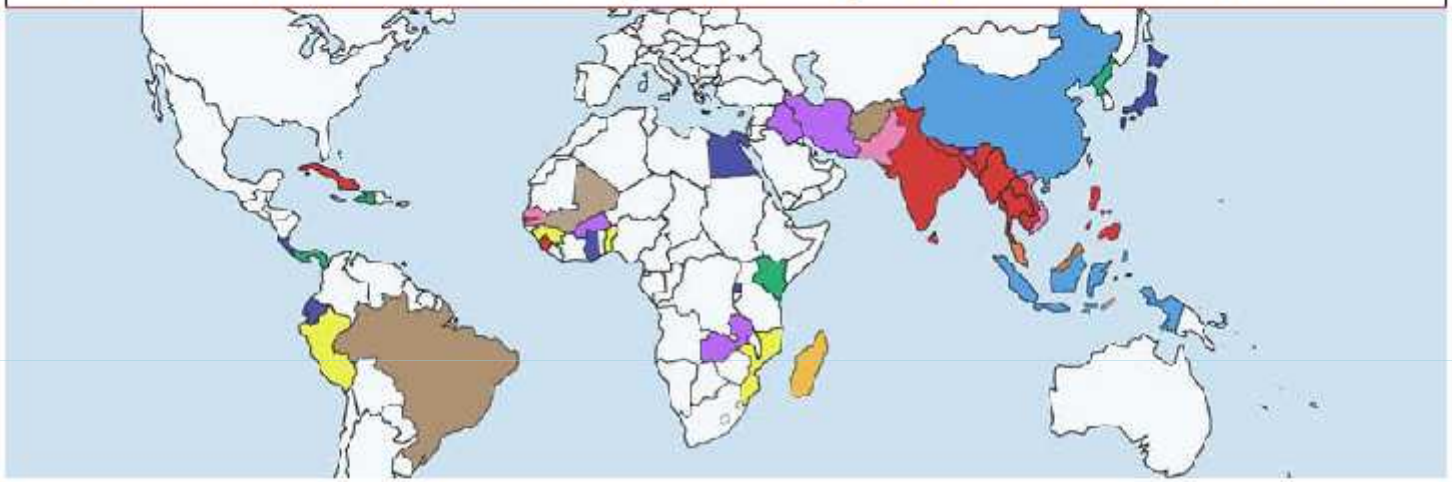
Two Different approaches and suggestions

- small scale family farms can help the land,
- cope with climate change, by absorbing carbon and preventing Co2 and Methane release into the atmosphere
- save on water.
- I will focus on South India and other parts of the world. I will also discuss how anthropologists can help to publicize and highlight the environmental and yield advantages of this approach,

SRI approach for managing first of all rice but also many crops

- Started in Madagascar but has been spreading like wildfire all over the globe.

2010: SRI benefits have now been validated in 42 countries of Asia, Africa, and Latin America



Before 1999: Madagascar
1999/2000: China, Indonesia
2000/01: Bangladesh, Cuba, Laos, Cambodia, Gambia, India, Nepal, Myanmar, Philippines, Sierra Leone, Sri Lanka, Thailand
2002/03: Benin, Guinea, Moz., Peru
2004/05: Senegal, Pakistan, Vietnam

2006: Burkina Faso, Bhutan, Iran, Iraq, Zambia
2007: Afghanistan, Brazil, Mali
2008: Rwanda, Costa Rica, Ecuador, Egypt, Ghana, Japan
2009: Malaysia, Timor Leste
2010: Kenya, DPRK, Panama, Haiti

SRI: Just Five Fundamental Ideas

- If you transplant, use young seedlings –

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- Of the three main greenhouse gases – carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) – most attention has so far been focused on CO_2 emissions because the volumes involved are the largest. However, molecule for molecule, methane has 23-25 times more and nitrous oxide 310 times more impact on warming of the atmosphere than CO_2.
- Organic inputs obtained locally, on the other hand, have little or no production or transportation costs and improve the soil's productive capacity for the long term.
- Oxfam has been facilitating the use of fertilizer briquettes that are placed deep in the soil, and there is less loss of nutrients from rice paddies into connected rivers and lakes.

- SRI Improves Farm Household Resilience & Climate Change Adaptability
- Using SRI, many farmers are able to obtain higher premiums in domestic and export markets for their surplus rice, especially for traditional varieties, thus promoting the conservation of rice biodiversity. Lotus Foods, a company in California, is importing rice from SRI farmers in Cambodia, Indonesia and Madagascar.

- National Food Security Mission - Rice
- Increase rice production by 10 million tons by the end of 11th Plan (2007-08 to 2011-12)
- SRI to be implemented in 133 districts across the country (5 districts in Tamil Nadu)
- Target area for SRI: 5 million ha
- Rs. 3,000 per SRI demonstration allocated
- 50,000 demonstrations; 1 demo of 0.4 ha for every 100 ha of rice area

In Indian plans for 11^{th}=12^{th} five year plans

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More about what SRI technology is

- SRI capitalizes on *potentials* that have long existed in the plant's genetic endowment
- These potentials have been *inhibited* by the standard practices for growing irrigated rice.
- SRI proposes managing plants, soil, water and nutrients in new ways.
- These give us a different *phenotype* from the existing rice genome.

- SRI gives an opportunity to raise concurrently the productivity of:
  - Land
  - Labor
  - Capital
  - Water
  - Not having to make tradeoffs among them
  - Also reduces farmers' costs of production

More about what SRI is

- SRI changes the ways that farmers have grown irrigated rice for centuries, even millennia, yet uses *simple methods*.
- SRI is more accessible to the poor because it does not depend on external inputs -- it requires neither *use of new seeds* nor *application of agrochemicals* -- these are optional.

- Copy 16-22. from your sRI3 Then pictures I showed you on living room computer.

To come after [pictures:

- Using this new management approach, with droughts becoming more frequent, weather fluctuations and monsoon irregularities, plants grow larger and deeper root systems,which enable them to survive droughts, and provide more resistence to other biotic and abiotic stresses. After a heavy typhoon one AP farmer who had grown ½ of her fields using SRI technology and the other traditionally found he had lost all of his traditional rice but was shocked to find his SRI plants coming back tolife after a few days. They could withstand lodging, and severe storms.
- They alwo withstand cold spells in other countries where cold can conme unexpectedly.

1. While requiring more labour when a farmer starts in using this method, it saves labour in the long run.
2. Both in China and in Tamil Nadu, farmers have also found a decrease in pests.
3. Millers prefer rice and wheat grown this way because they found it gives less chaff and ther was less shattering.
4.The number of days for a crop from beginning to harvest is often as much as 10-15 days shorter.
5. It also works with both traditional varieties which do not lodge when grown using SRTI techniques, since their panicles are held upright by strong tillers and big root systems.
6. Can also be used with hybrid and HYV varieties.

Cultural Effects to be noted world wide

- SRI has had many social and even psychological dimensions, as farmers who have grown rice for years get really excited by it. For example, at RASTA, the first year only the NGO grew ½ acre of SRI Rice, The next year, one of the farmers who watched grew it using these approaches, the following year 27 farmers decided to do, and so it continues.
- It has spread first by wide-fire from NGOs, and farmer-to-farmer in some areas making use of farmer field schools, but also just by looking, and farmers tend to become really inspired and excited as they see the many benefits of this aproach.

According to Fr. Henri dr Laulainie:

- It was intended to be disseminated in a participatory way and farmers are encouraged to experiment
- It has inspired many farmers to spend their own time in spreading it, and according to Uphoff, its main advocate in the US (based at Cornell) there is abundant anecdotal evidence that it has elicited altruism in country after country.
- It is revolutionary since it is mostly a management technique and a set of farming practices that optimizes the potential and healthy growth of each individual rice seed .. It has been referred to as a rice revolution.
- India's leading business magazine refers to it as one of the 25 ideas that will change the world.

- It has spread to over 30 countries .