Promoting a new generation of farming entrepreneurs

Overview of the Chinese case

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Commendable achievements

- 7.0% of world arable land for 18.6% of world population
- Famines belong to the past
- Strong position in cotton production
- Factors
  - Policy changes
  - Investment in ag research
    - Several China-specific technologies
  - Investment in irrigation (albeit some disruption)
  - High intensity of fertilizer use
Relative "decline" of agriculture

### Average annual growth (%)

<table>
<thead>
<tr>
<th></th>
<th>1985-95</th>
<th>2001-05</th>
<th>2006-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>9.70</td>
<td>9.90</td>
<td>11.10</td>
</tr>
<tr>
<td>Agriculture</td>
<td>4.00</td>
<td>4.30</td>
<td>4.50</td>
</tr>
<tr>
<td>Population</td>
<td>1.37</td>
<td>0.63</td>
<td>0.50</td>
</tr>
</tbody>
</table>

### Share (%)

<table>
<thead>
<tr>
<th></th>
<th>1990</th>
<th>2000</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture in GDP</td>
<td>27</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Ag. In Employment</td>
<td>60</td>
<td>50</td>
<td>37</td>
</tr>
<tr>
<td>Rural Population</td>
<td>74</td>
<td>64</td>
<td>50</td>
</tr>
</tbody>
</table>
### Fluctuation of agricultural growth indicative of policy changes

#### Average annual growth (%)

<table>
<thead>
<tr>
<th></th>
<th>1979-84</th>
<th>1985-95</th>
<th>1996-00</th>
<th>2001-05</th>
<th>2006-10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>7.1</td>
<td>4.0</td>
<td>3.4</td>
<td>4.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Grain production</td>
<td>4.7</td>
<td>1.7</td>
<td>-0.7</td>
<td>1.1</td>
<td>2.5</td>
</tr>
<tr>
<td>Rice</td>
<td>4.5</td>
<td>0.6</td>
<td>0.4</td>
<td>-0.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Wheat</td>
<td>8.3</td>
<td>1.9</td>
<td>-0.6</td>
<td>-0.4</td>
<td>3.0</td>
</tr>
<tr>
<td>Maize</td>
<td>3.7</td>
<td>4.7</td>
<td>-1.3</td>
<td>5.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Cotton production</td>
<td>19.3</td>
<td>-0.3</td>
<td>-1.9</td>
<td>5.3</td>
<td>-0.9</td>
</tr>
</tbody>
</table>
Being a farmer: not such a privilege

Per capita income, in yuan

Source: China Statistical Yearbook, 2012
Some features of the farmer status

• "Hukou": residential registration
  – rural vs urban
  – Hard to shift from rural to urban
• Land use right allocated to farming families
  – For 30 years
• Unfavorable access to public services for "rurals" (e.g. health care); no pension scheme
• ...with some recent corrections
  – Free 9-year education in rural areas (since 2006)
  – 2007: no more taxes by farmers
Farmers' families have got wealthier...
# Durable consumer goods

(Number per 100 rural household)

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washing Machine</td>
<td>63</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>62</td>
</tr>
<tr>
<td>Air Conditioner</td>
<td>23</td>
</tr>
<tr>
<td>Exhaust Fan</td>
<td>13</td>
</tr>
<tr>
<td>Bicycle</td>
<td>77</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>61</td>
</tr>
<tr>
<td>Telephone</td>
<td>43</td>
</tr>
<tr>
<td>Mobile Telephone</td>
<td>180</td>
</tr>
<tr>
<td>Black and White TV Set</td>
<td>2</td>
</tr>
<tr>
<td>Color TV Set</td>
<td>115</td>
</tr>
<tr>
<td>Camera</td>
<td>5</td>
</tr>
<tr>
<td>Computer</td>
<td>18</td>
</tr>
</tbody>
</table>
...thanks in part to off-farm activities

- ...due to very small farm size
  - 0.4 - 0.7 ha
- ...providing diversified sources of income
- Implying Part-time farming
  - Not all family members are permanently involved
- And aging and feminized agriculture
- ...till frequent cases of abandon of farming
  - Land available to others
Sources of farmers’ income (%)

Increasing trend of rural labour force's involvement in off-farm activities

Involvement in off-farm activities: females are catching up

Matter for concern: no interest of youngsters for farming

<table>
<thead>
<tr>
<th>Age cohort of farm heads</th>
<th>% farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-25</td>
<td>1.3</td>
</tr>
<tr>
<td>26-35</td>
<td>11.2</td>
</tr>
<tr>
<td>36-45</td>
<td>35.1</td>
</tr>
<tr>
<td>46-55</td>
<td>38.7</td>
</tr>
<tr>
<td>&gt;55</td>
<td>13.7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Participation to field work</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sons</td>
<td>8.8</td>
</tr>
<tr>
<td>Daughters</td>
<td>6.8</td>
</tr>
</tbody>
</table>

Source: surveys on cotton farms, 2006-2009, Hebei province
Anxiety about the future of farming

A big cereal producer claims that, for sure, he would not let his son farming.

Who will farm in the future?
Greatest risk for abandoning cotton growing?

- Great sensitivity to price fluctuations
- Greater sensitivity to price fall than to price increase
- Greater sensitivity to the labour cost
  - Which has increased a lot the last years
Political concern

• 2007: debate on "who will farm in China"
• 2008: Notion of "3 Nong"
  – Agriculture, farmers, rural communities
• Central government "Policy N°1 documents"
  – 2012: notion of "professional farmers"
  – 2013: notion of "Family farmers"
Blue book of urban and rural integration

• Urbanisation
  – not as high as possible nor as quick as possible
• Challenge of food shortages with less land, less water and less farmers
• Preserve local culture and heritage in rural areas
• Integration does not imply similar model of development in rural communities and cities
Actions retained

• Support the land use by those most committed in farming
• Promotion of cooperative
• Promotion of mechanisation
• A new generation of farmers through adjusted training
  – Educated
  – Technology commanding
  – Management skillful
Enhancement of farmers' training

• Budget Increase in 11th Five-year Plan
  • Allocation to Ag Department: 5.6 billions yuan (US$ 0.9 billion)
    – Adjustment of the training system
      • Enhancement of ag TV
      • ...
    – New: special vocational training program to secondary school graduates for farming

• Various experiences engaged since 2012
  – Lot of analysis by scientists
Program of "family farmers"

• From late 2012
• New status conditional to application and authorization
• ...for land security and financial advantages
Imposed conditions for the status of "family farmer"

- Farmers must submit application
- Family labour must be the main labour source
  - Applicants must farm permanently
  - Extra labour hiring: only occasionally
- Production program in compliance with local political objectives
  - Not grow whatever you want
- Commitment to cultivation and management standards
- Compliance to an evaluation process
  - Evaluation result: conditional to the payment of subsidies
    - Amount may depend on localities
    - Average: 200 yuan/mu (US$ 480/ha)
Major advantages

• Security in land use right
  – Land rented in is secured for 5 years, through a contract officially validated

• Direct payment subsidy

• Subsidy in farm production machineries
  – Up to 70% of the equipment value
  – Local subsidy for fuel
Experiences under light

Shanghai experiences "family farming": average individual income of the farming couple exceeds that of civil servant.

Family farming: annual net income of 200,000 Yuan (US$32,000) from 12 hectares.
Distance still lacks

- Very recent experience
- Number of "family farms": unknown
  - 2013: around 162 farms in a county close to Shanghai
- Most experiences reported pertain to cereals as main production
  - Cotton not/less eligible?
- Income comparison
  - In 2012
    - Average farmer’s income: 18,000 yuan
    - Average family farmer: 30,000 yuan
Cases of family farming of cotton?

Yes, kind of, but at limited extent

<table>
<thead>
<tr>
<th>Farm types</th>
<th>Traditional</th>
<th>Specialized</th>
<th>Small entrepreneur</th>
<th>Big entrepreneur</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land rented in, ha</td>
<td>&lt;0.33</td>
<td>0.33-1.00</td>
<td>1.00-6.67</td>
<td>&gt;6.67</td>
</tr>
<tr>
<td>Nombre de farms, %</td>
<td>88.3</td>
<td>7.7</td>
<td>3.1</td>
<td>1.0</td>
</tr>
<tr>
<td>Total cultivated land, ha</td>
<td>0.66</td>
<td>1.18</td>
<td>2.36</td>
<td>16.76</td>
</tr>
<tr>
<td>Own land, ha</td>
<td>0.63</td>
<td>0.59</td>
<td>0.70</td>
<td>0.46</td>
</tr>
<tr>
<td>Cotton area, ha</td>
<td>0.39</td>
<td>0.75</td>
<td>1.79</td>
<td>15.04</td>
</tr>
<tr>
<td>Cotton/total land, %</td>
<td>58.9</td>
<td>63.2</td>
<td>75.9</td>
<td>89.7</td>
</tr>
</tbody>
</table>

Out of 1561 farms surveyed between 2010 and 2012, Hebei province
Viability conditions

• Net Income must be at least double than from wages
• ...implying that the farm size be above 12 ha
  – Size range: 12-14 ha
• Mechanization is key
• Various sources of income
  – Cropping
  – Husbandry
  – Service provision for mechanized operations
  – Possible subsidies by government
Sustainability depends on local funding

• Low contribution from central government:
  – Only 14% of the total subsidies
• Viability mainly depend on the wealth of local authorities
  – Not repeatable everywhere
• Subsidies: contribution to 3/5 of farm income
  – Without subsidies, monthly income down to 1500 yuan, not worthy at all
Sustainability depends on addressing additional issues

- How long will last the current support?
- The farming mode promoted implies high financial cost
- Uncertainty remains about the security of land use right
  - What will happen after 5 years?
- Points missed
  - No correction of the residential registration system
  - No change of the welfare system to improve farmers' social status (health, pension...)
A new program to be followed up

• Program under experiment
  – Adjustment very likely
• WYSINEWIP
  – What you'll see is not exactly what I've presented
Thank you for your attention