Impact of Government structure and interventions and social capital on the transformation of the smallholder vegetable industry: The case of Barangay Songco, Lantapan, Philippines

Glory Dee Romo, Colin Brown, and Rob Cramb

Contributed presentation at the 60th AARES Annual Conference, Canberra, ACT, 2-5 February 2016
Impact of Government structure and interventions and social capital on the transformation of the smallholder vegetable industry: The case of Barangay Songco, Lantapan, Philippines

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The 60th Annual Australian Agriculture and Resource Economics Society
While crop production is more than half of the agricultural production, the major vegetables have a share of only 2.76% to the total value of agricultural production (2000-2014).

Annual growth rate of the value of all vegetables -2.12% (2000-2014) 
< growth rates all major crops -2.73%
< growth rates all crops - 2.54%
< growth rate of total value of agricultural production -2.45%

Reliance of the vegetable farmers to the traditional marketing systems

Inability of the smallholders to sustain a vegetable marketing collaboration
Background

Agriculture contributes 10.02% to the total value of the Gross Domestic Product (GDP) and is third only to service (55.55%) and industry (33.43%) sectors in 2014 (PSA, 2015)

Its annual growth rate from 2000 to 2014 was the lowest among the three sectors at 2.60% and lower than the GDP annual growth rate of 5.02%

The growth of the agriculture did not meet the target set in the Medium Term Philippine Development Plan (MTPDP) 2004-2010

The target annual growth rate from year 2011 to 2016 had been raised to 4.6% to 5.7% (NEDA, 2011b)
Objective and Research Questions

To investigate the roles played by and incentives driving actors in both the production and marketing sectors in the smallholder segment of the Philippine vegetable industry.

What changes in the vegetable marketing sector are observed and felt by the vegetable smallholders?

What are the changes that they have implemented in their farm and marketing practices to respond to the changes in the vegetable marketing sector?

How do government structure and interventions and social capital influence these farm and marketing practices?

How do market arrangements (e.g. market collaboration) take the current form and nature? How do these current market arrangements influence the production decisions of the vegetable smallholders?
To investigate the roles played by and incentives driving actors in both the production and marketing sectors in the smallholder segment of the Philippine vegetable industry.

How do government structure and interventions and social capital influence these farm and marketing practices?
Conceptual Framework

Government structure

Government interventions

Stock of Social capital (bridging and bonding)

Farmers’ decision on farm and marketing activities

Use of case studies
1) Broccoli – high value crop
2) Potato – with long storage life
3) Tomato – high perishability
Government structure and interventions

Corazon Aquino Administration: 1986-1992


Estrada administration 1998-2000

Gloria Macapagal-Arroyo administration: 2001-2004

Gloria Macapagal-Arroyo administration: 2004-2010

Benigno Aquino III administration: 2010-2016
Government structure and interventions

1986 - 1992

This administration has adopted the agro-industrial development strategy but a product-oriented approach.

A study conducted by Allen & Dy (1990), however, pushed for an agribusiness framework.

Decentralization of government structures
Government structure and interventions

1986 - 1992

Regions

Cities

Municipalities

Barangays

Number of Provinces, Cities, Municipalities and Barangays by Region as of March 31, 2014

<table>
<thead>
<tr>
<th>REGION</th>
<th>PROVINCE</th>
<th>CITIES</th>
<th>MUNICIPALITIES</th>
<th>BARANGAYS</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCR</td>
<td>4</td>
<td>16</td>
<td>1</td>
<td>1,706</td>
</tr>
<tr>
<td>I</td>
<td>4</td>
<td>9</td>
<td>116</td>
<td>3,265</td>
</tr>
<tr>
<td>II</td>
<td>5</td>
<td>4</td>
<td>89</td>
<td>2,311</td>
</tr>
<tr>
<td>III</td>
<td>7</td>
<td>14</td>
<td>116</td>
<td>3,102</td>
</tr>
<tr>
<td>IV-A</td>
<td>5</td>
<td>18</td>
<td>124</td>
<td>4,011</td>
</tr>
<tr>
<td>IV-B</td>
<td>5</td>
<td>2</td>
<td>71</td>
<td>1,458</td>
</tr>
<tr>
<td>V</td>
<td>6</td>
<td>7</td>
<td>107</td>
<td>3,471</td>
</tr>
<tr>
<td>VI</td>
<td>6</td>
<td>16</td>
<td>117</td>
<td>4,051</td>
</tr>
<tr>
<td>VII</td>
<td>4</td>
<td>16</td>
<td>116</td>
<td>3,003</td>
</tr>
<tr>
<td>VIII</td>
<td>6</td>
<td>7</td>
<td>136</td>
<td>4,390</td>
</tr>
<tr>
<td>IX</td>
<td>3</td>
<td>5</td>
<td>67</td>
<td>1,904</td>
</tr>
<tr>
<td>X</td>
<td>5</td>
<td>9</td>
<td>84</td>
<td>2,022</td>
</tr>
<tr>
<td>XI</td>
<td>5</td>
<td>6</td>
<td>43</td>
<td>1,162</td>
</tr>
<tr>
<td>XII</td>
<td>4</td>
<td>5</td>
<td>45</td>
<td>1,195</td>
</tr>
<tr>
<td>XIII (CARAGA)</td>
<td>5</td>
<td>6</td>
<td>67</td>
<td>1,311</td>
</tr>
<tr>
<td>CAR</td>
<td>6</td>
<td>2</td>
<td>75</td>
<td>1,176</td>
</tr>
<tr>
<td>ARMM</td>
<td>5</td>
<td>2</td>
<td>116</td>
<td>2,490</td>
</tr>
<tr>
<td>TOTAL</td>
<td>81</td>
<td>144</td>
<td>1,490</td>
<td>42,028</td>
</tr>
</tbody>
</table>

Source: DILG, 2014
Government structure and interventions

Fiscal autonomy: Internal revenue allotment

Share of IRA

Total IRA

23% - Provinces

23% - Cities

34% - Municipalities

20% - Barangays

Distribution of IRA share based on the following factors and percentages

50% - Population

25% - Land area

25% - Equal sharing

PhP 80,000 for a population of ≥100

plus

Remaining budget

60% - population

40% - equal sharing

1986 - 1992
1986 - 1992

Fiscal autonomy: 2015 National budget

- Central and nationwide programs: 45%
- CAR: 1%
- NCR: 1%
- Region I: 16%
- Region II: 2%
- Region III: 2%
- Region IVA & B: 4%
- Region V: 6%
- Region VI: 3%
- Region VII: 3%
- Region VIII: 3%
- Region IX: 3%
- Region X: 2%
- Region XI: 2%
- Region XII: 2%
- Region XIII: 2%
One of the priorities was on strengthening domestic industries for international market.

AFMA 1997: production of high value crops became one of the priority commodities which led to the significant increase in the area covered by crops.
Government structure and interventions

1998-2000

Economic program was focused on agricultural development

- farm-to-market roads,
- postharvest facilities,
- rural credit,
- and extension services

rural areas

major weaknesses:
- lack of major stakeholders’ participation
- weaknesses observed among the implementing agencies.

Introduction of Priority Development Assistance Fund
The first strategy was the continuous implementation of AFMA of 1997.

GMA High Value Crops was introduced.

Improvement on the exporting capabilities of Mindanao in high value agricultural products and to make the Mindanao island as the food basket in the country.

US$550 million Mindanao Rural Development Project (15 yr project) covered the whole Mindanao and locally funded integrated projects covering some selected areas of Mindanao.
This administration is also adopting the agribusiness approach to spur development in agriculture and rural areas which aims to achieve the following specific objectives (NEDA, 2004).

The PDAF was adopted by Macapagal-Aroyo administration which allowed projects not limited to livelihood and financial assistance (Galam, 2014).
A. National project management structure of PRDP

B. Organizational structure at the PSO

C. Provincial project management structure of PRDP

2010-2016
Social capital

Bonding social capital

Bridging social capital

Other universities
### Social capital: key findings

<table>
<thead>
<tr>
<th>No. of respondents</th>
<th>Broccoli</th>
<th>potato</th>
<th>tomato</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>129</td>
<td>88</td>
<td>29</td>
</tr>
</tbody>
</table>

#### decision to plant crop - influenced by the community

<table>
<thead>
<tr>
<th>Crop</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>broccoli</td>
<td>104</td>
<td>81%</td>
</tr>
<tr>
<td>potato</td>
<td>75</td>
<td>86%</td>
</tr>
<tr>
<td>tomato</td>
<td>12</td>
<td>40%</td>
</tr>
</tbody>
</table>

#### reasons for producing a crop

<table>
<thead>
<tr>
<th>Crop</th>
<th>Reason                                                                ise</th>
</tr>
</thead>
<tbody>
<tr>
<td>broccoli</td>
<td>anticipation for high price</td>
</tr>
<tr>
<td></td>
<td>encouraged by the results of the other farmers' harvest and sales</td>
</tr>
<tr>
<td></td>
<td>when price of cauliflower goes down, price of broccoli goes up</td>
</tr>
<tr>
<td>potato</td>
<td>for the availability of seeds</td>
</tr>
<tr>
<td></td>
<td>long storage life</td>
</tr>
<tr>
<td></td>
<td>anticipation for higher price</td>
</tr>
<tr>
<td></td>
<td>less labour requirements</td>
</tr>
<tr>
<td>tomato</td>
<td>anticipation for high price (only when there is high demand from Manila)</td>
</tr>
</tbody>
</table>

#### Classification - done by buyers

<table>
<thead>
<tr>
<th>Crop</th>
<th>No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>broccoli</td>
<td>56</td>
<td>43%</td>
</tr>
<tr>
<td>potato</td>
<td>9</td>
<td>10%</td>
</tr>
<tr>
<td>tomato</td>
<td>0</td>
<td>0%</td>
</tr>
</tbody>
</table>
## Implications

1. Targeted policies which consider the different key characteristics of the crops in the vegetable smallholder system

2. Improved monitoring and evaluation of the projects implemented at the level of the villages or municipalities

3. Understanding of the power dynamics in the market as a key to appropriate assistance and improved policies for the municipality and villages

4. Enhanced collaboration between the universities and local government units

5. Enhanced collaboration between the universities (and other organizations) and local government units

6. Enhanced bonding social capital

7. Enhanced bridging social capital
Thank you!
The University of Queensland
Australian Centre for International Agricultural Research