In poor countries, where the weakness of animal production is linked to the inadequacy of supply, the notion that demand drives growth often results in reduced public support for the livestock sector. The increase in demand encourages higher production volumes and imports but this is not sufficient to improve livestock productivity.

To respond to the rise in demand and to produce more, poor farmers turn to extensive production systems, using ever more animals and more pasture, thereby increasing the pressure on natural resources and the environment.

An improvement in livestock productivity would require an improvement in sectoral policies, the strengthening of Veterinary Services, and support measures, to enable poor livestock farmers to safeguard their production and take advantage of technological advances.

An estimated 1.2 billion people live in extreme poverty, with less than USD 1.25 a day (World Bank, 2014). Of these, 1 billion live in rural areas and 800 to 900 million keep animals. For poor farmers, animals are the main source of income. Animals help to keep the soil fertile and provide traction for ploughing and transport. For poor households, animals are also the best means to preserve the necessary resources to cope with agricultural crises and to exit poverty (Alary, 2003; FAO, 2012).

In developing countries, the extreme poverty rate fell sharply from 52% in 1981 to 20% in 2012. Nevertheless, the results have been very uneven across regions. Those countries that have given their agricultural sector the most support have achieved the best results.

Percentage of people living in extreme poverty, in developing countries in major regions of the world and in least developed countries (LDCs), in 1981 and 2012

REDUCING POVERTY THROUGH BETTER PRODUCTIVITY

Improvement in agricultural productivity is essential to reduce rural poverty

In countries where agriculture plays an important part in the economy, poverty reduction requires an improvement in agricultural productivity. Improved agricultural productivity formed the basis for growth in the major economies in the 19th century and, more recently, in the major emerging countries (Adelman & Morris, 1988). No country has yet managed to reduce rural poverty without increasing the productivity of its agriculture (Gallup et al., 1997). Agricultural growth makes a far greater contribution to poverty reduction than growth in non-agricultural sectors (Hasan Kahn, 2000). Christiaensen et al. (2010) explain that it is difficult to transfer the income generated in one economic sector to another. As a result, poor people derive greater benefits from growth if it occurs in their own sector.

The unique ability of livestock production to reduce poverty

Based on data from 66 low- and middle-income countries, Pica et al. (2008) showed that, in almost all of the countries, livestock was a driving force for the growth of per capita GDP. Livestock production’s unique ability to reduce poverty stems from the indirect benefits that it brings and from the use of animals for savings and capital accumulation, which facilitate poverty exit.

Growth limited to extensive livestock production does not contribute to poverty reduction.

To be able to help reduce poverty, growth in production must be intensive growth, i.e. stem from productivity gains. Intensive growth increases production by making more efficient use of inputs (or production factors) and, consequently, giving a better return on work. Extensive growth, on the other hand, requires a greater quantity of inputs: more pasture, more work, etc., but it does not lead to a better return on these inputs, most notably, it does not give a better return on work. Consequently, producers’ incomes stagnate. Extensive growth may create jobs by bringing new producers into the sector, but it does not lead to a significant reduction in poverty.

<table>
<thead>
<tr>
<th>Region</th>
<th>Cattle</th>
<th>Pigs</th>
<th>Chicken</th>
<th>Sheep/goats</th>
<th>Cattle</th>
<th>Pigs</th>
<th>Chicken</th>
<th>Sheep/goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Afrique Sub-saharienne</td>
<td>18</td>
<td>36</td>
<td>2.7</td>
<td>4.4</td>
<td>17</td>
<td>14</td>
<td>39</td>
<td>23</td>
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<tr>
<td>Latin Am. &amp; Caribbean</td>
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<td>86</td>
<td>8</td>
<td>3.8</td>
<td>53</td>
<td>88</td>
<td>66</td>
<td>–</td>
</tr>
<tr>
<td>East Asia &amp; Pacific</td>
<td>62</td>
<td>101</td>
<td>3.2</td>
<td>10</td>
<td>86</td>
<td>80</td>
<td>44</td>
<td>83</td>
</tr>
<tr>
<td>South Asia</td>
<td>–</td>
<td>89</td>
<td>2.3</td>
<td>4.2</td>
<td>–</td>
<td>68</td>
<td>23</td>
<td>–7</td>
</tr>
<tr>
<td>Middle East &amp; North Afr.</td>
<td>50</td>
<td>–</td>
<td>7.7</td>
<td>5</td>
<td>68</td>
<td>–</td>
<td>55</td>
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<td>38</td>
<td>1.9</td>
<td>4.1</td>
<td>21</td>
<td>34</td>
<td>43</td>
<td>16</td>
</tr>
<tr>
<td>Developed countries</td>
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<td>145</td>
<td>8.5</td>
<td>9.1</td>
<td>100</td>
<td>100</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>

Off-take ratio\(^1\) in 2012 and contribution of intensive growth to overall growth in meat production from cattle, pigs, chickens, sheep and goats between 1981 and 2012.

Calculation of off-take ratios and intensive growth rates based on data from FAOSTAT 2014

\(^1\) The off-take ratio is calculated by dividing the amount of meat obtained from a species in a year (usually expressed in kilograms) by the average number of animals of that species for the same year.
Animal diseases lead to significant losses, destroy the assets of poor households and are an obstacle to the exploitation of technological innovations.

Animals are often the most important part of poor farmers’ assets and the death of a single animal can have quite disastrous consequences for a vulnerable rural household. A summary of research (OIE, unpublished) shows that in least developed countries (LDCs), animal diseases kill about 18% of poor farmers’ livestock every year. Production losses (mortality and morbidity) from animal diseases can reach 50% of the total value of livestock production in areas affected by trypanosomosis (FAO 2013), which span some 37 countries, most of them in Africa.

Given the high risk of animal diseases, poor farmers are usually reluctant to make the necessary investments to improve their animals’ performance and raise genetically improved animals, which perform better but require more stringent hygiene, disease prevention and nutrition conditions than indigenous breeds.

Animal diseases are also a factor leading to inequality among producers, since the richest producers can minimise risks by protecting their animals from endemic diseases. These producers are also establishing more and more industrial farms, especially for poultry, and their products compete with those of poor farmers on local markets.

Importance of securing investments and protecting animal health

Modern-day economists have demonstrated the multiplicity of determinants for growth. Improvement of public policies and institutions, technical advances, the securing of investments, land ownership (with transferable and tradable land rights) and protection against systemic risks (including animal diseases) are seen as key to improving productivity (de Soto, 2000; Barro & Sala-i-Martin, 2004).
Public financial support is needed to improve livestock productivity

Latruffe (2010) and Shimura & Moreddu (OCDE, 2011) showed that the most powerful determinants of agricultural productivity are the quality of public interventions: sectoral policies (including animal health policies), research and development, infrastructure, the quality of the natural environment (climate and soil fertility), market conditions (strength of demand) and the level of commercialisation (commercial farming as opposed to subsistence farming). Livestock producers are not in a position to control the most powerful determinants of productivity, except for the level of commercialisation. In developed countries, where livestock production represents nearly 50% of agricultural GDP, the improvement of agricultural productivity has been made possible through substantial public support. This support has declined, but in 2012 it still represented about USD 258 billion, corresponding to 19% of the total value of agricultural production.

Support for improving livestock productivity and animal health is inadequate in the poorest countries

A study of references to livestock production in the Poverty Reduction Strategy Papers (PRSPs) of 49 countries found that no PRSPs presented a coherent picture of the importance of livestock in the economy and in poverty reduction (Blench et al., 2003).

International aid tends to favour plant production rather than livestock. In 2012, the amount of aid granted to agriculture (all sectors) was USD 11.5 billion, whereas the amount granted directly to livestock (e.g., to support production and to help Veterinary Services meet quality standards) was USD 173 million, representing only 1.5% of total aid to agriculture (OECD/DAC, 2013). This disastrous situation is primarily the result of political decisions and a desire to reduce growth in livestock production.

The Chinese Experience

In 2011, State support for agriculture in the People’s Rep. of China represented:

- 3.7% of national GDP
- 17% of the value of agricultural production

Montalvo & Ravallion (2009) showed that improvement in agricultural productivity has been the key factor in the dramatic reduction of poverty in the People’s Republic of China. The animal production sector has substantially benefited from this support. There are very few data showing the impact of the secondary and tertiary sectors on growth.