
Seed money project:

Development and dissemination of sustainable pig development strategies in India.



Objectives:

- Analysis of the **current state** of affairs of the pig industry in India
- Overview of **investment** options for Dutch pig business
- Outline potential relevant public and private **partners**

Objectives by aspect of sustainable pig development:

- **Breeding** aspects (climate-adaptive breeding policies)
- Using local **feed** sources for sustainable feeding
- **Disease** prevention and treatments; improved disease monitoring
- Sustainable utilization of pig **manure**
- Supply of good **quality** and **safe pork**

Project partners:

- **De Heus**, feed company
- **Hypor** (Hendrix Genetics), breeding
- **GD Animal Health**, disease prevention, cure and monitoring
- **Protix**, insect production
- **Arohan Food**, pork processor (in Assam)
- **ICCO Investments India**, private equity

Project implementation team (Wageningen Livestock Research):

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Approach:

- Literature research
- Field visits to Assam (October 9th – 19th)
- Contacts with resource people in Delhi and other States

Findings:

1. Distribution accross the country
2. Characteristics of pig production in Assam
3. Challenges in pig production in Assam
4. Progress made in sustainable pig development
5. Stakeholders in pig production in Assam
6. Prospects for contributions from Dutch side and commercial options.

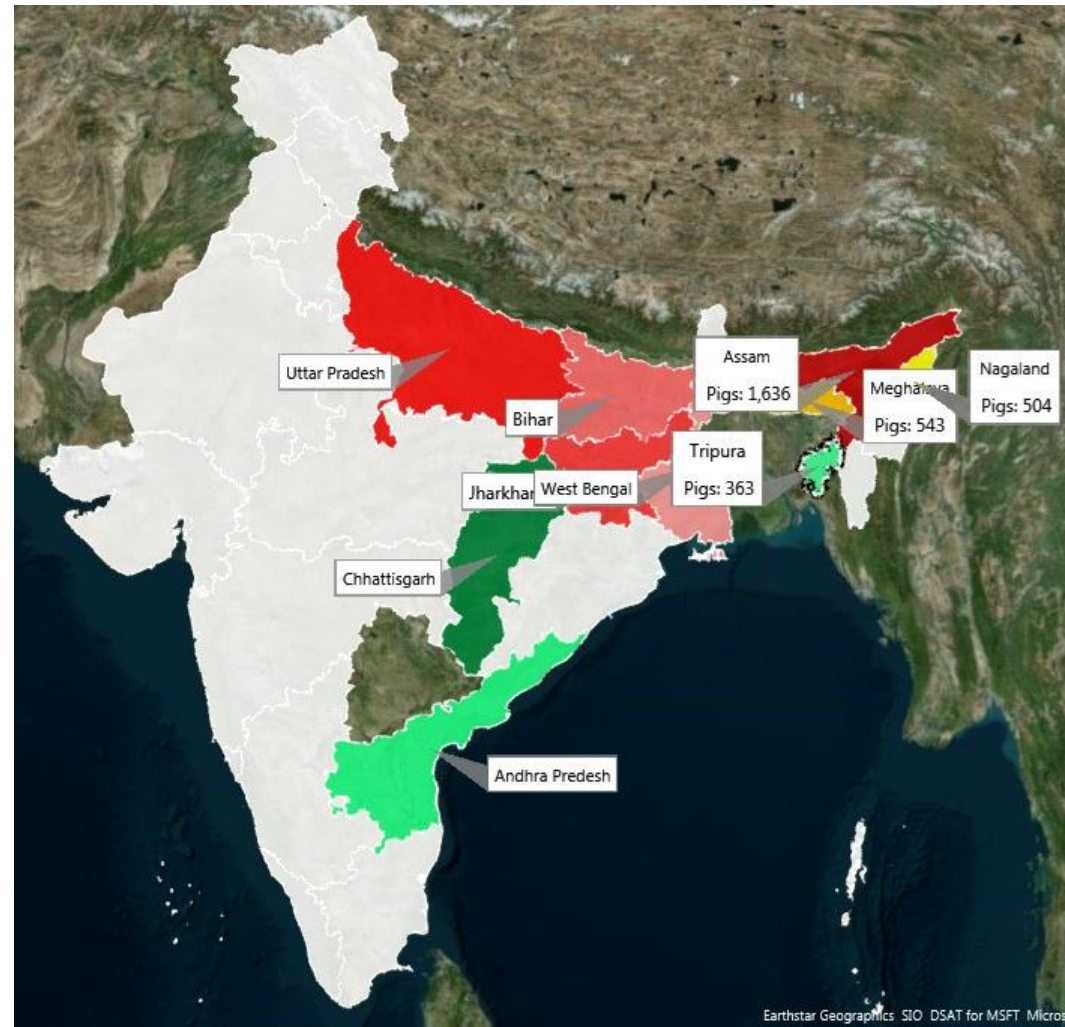


1) Distribution across the country

TOP 10 states with highest pig population

| States | Pigs (in thousands) |
|----------------|---------------------|
| Assam | 1636 |
| Uttar Pradesh | 1334 |
| Jharkhand | 962 |
| Bihar | 650 |
| West Bengal | 648 |
| Meghalaya | 543 |
| Nagaland | 504 |
| Chhattisgarh | 439 |
| Andhra Pradesh | 394 |
| Tripura | 363 |

19th Livestock census, 2012, DADF, MoA, GoI



2) Characteristics of pig production in Assam.

- Most farms with few pigs: supplementary source of livelihood. Family labour based
- Some, but growing number of farms with stall feeding: primary source of livelihood. Employing staff.
- Regional difference between breeding (supply of piglets) and fattening
- Feeds
 - mainly gathered by households
 - some by-products



■ Breeding stock

- Small populations of unimproved, local breeds
- Highly inbred local populations of Western 'productive' breeds
- Large number of unspecified crossbreds

■ Western breeds

- Large Black
- Hampshire
- PIC lines from 1990-ies

Bottleneck is import regulations!



3) Challenges in pig production in Assam

- General: fragmented and incoherent, but improving
- Feed: mainly energy, poor in protein
- Breeding: Highly inbred, lack of (infra)structure
- Health: For notifiable diseases there is a (failing) disease control programme based on vaccination and biosecurity
- Marketing: mainly local, wet market. Only one investor in processing. Food safety is a major issue
- Knowledge, training for management skills: great need for improvement, including research

4) Progress made in sustainable pig development

Main progress through new private investors:

Symbiotic Foods: commercial producer, with ambitions in feed production. First investors in Assam in pig housing design with separate compartments.



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Arohan Foods: slaughtering and processing: first in Assam

Selling to high end markets country wide

Sourcing pigs for slaughtering from local farmers

Involved in support programmes, e.g. locally adapted feeding systems.



5) Stakeholders in pig production in Assam

- Local pig producers (largely unorganised)
- Input suppliers (feed to more commercially oriented farmers)
- Government: regulation, support programmes
 - Policy: grow from existing base
- Research: National Research Centre on Pigs, Assam, and ILRI, Assam
- World Bank: Assam Agribusiness and Rural Transformation Programme (APART), 2017-2024; implementation through Ministry of Agriculture

6) Prospects for contributions from Dutch side and commercial options

- Private investors
- Government interventions: through WB programme
- World Bank project APART: 200 M\$ programme. Emphasis on crop yield and diversification, pig production and post harvest



Public investments:

- Strengthening of training & education: through NAHEP and other India programmes. Opportunity Borderless Network
- Food safety, biosecurity: G2G programmes
- Improved animal health services: disease monitoring, diagnostics, monitoring

Commercial options:

- Feed: growing demand for high-quality protein components to compensate energy rich diets and growing demand for complete feeds
- Breeding: demand for breeding stock, semen and possibly participating in breeding farms in the state (expertise for genetic selection in local production systems)
- Slaughtering: government tenders for slaughtering equipment; (mobile) equipment to facilitate hygienic slaughter in the village

How to continue building the **business case** for sustainable pig development strategies in India?

- Options to be discussed with participating companies in January
- Possibly PIB (Partners International Business)