



# Current role of WorldFish- Bangladesh in Seed & Feed Sector

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# WorldFish Mission and Vision



**Mission:** To reduce poverty and hunger by improving fisheries and aquaculture

**Vision:** To be the research partner of choice for delivering fisheries and aquaculture solutions in developing countries

# OVERARCHING THEMES

GENDER

PARTNERSHIPS/STAKEHOLDER  
ENGAGEMENT

CAPACITY  
STRENGTHENING

## CGIAR RESEARCH PROGRAMS

GENEBANKS	MAIZE	AQUATIC AGRICULTURAL SYSTEMS	CLIMATE CHANGE, AGRICULTURE AND FOOD SECURITY
DRYLAND CEREALS	RICE	DRYLAND SYSTEMS	FORESTS, TREES AND AGROFORESTRY
GRAIN LEGUMES	ROOTS, TUBERS AND BANANAS	INTEGRATED SYSTEMS FOR THE HUMID TROPICS	AGRICULTURE FOR NUTRITION AND HEALTH
LIVESTOCK AND FISH	WHEAT	WATER, LAND AND ECOSYSTEMS	POLICIES, INSTITUTIONS AND MARKETS

# OUTCOMES

REDUCED RURAL  
POVERTY

INCREASED  
FOOD SECURITY

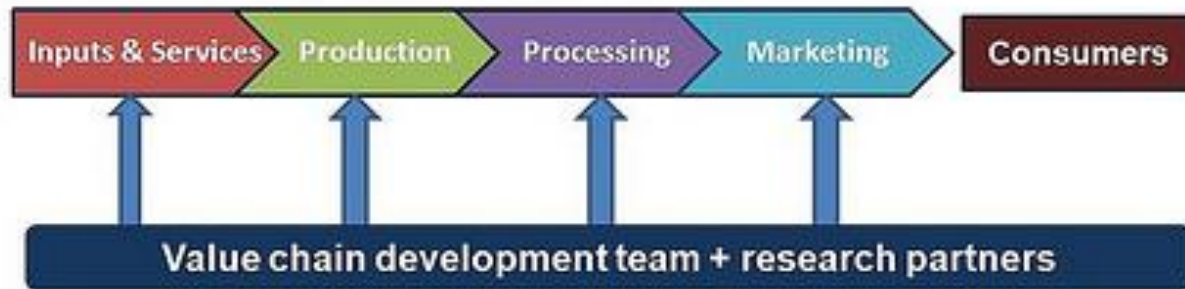
IMPROVED NUTRITION  
AND HEALTH

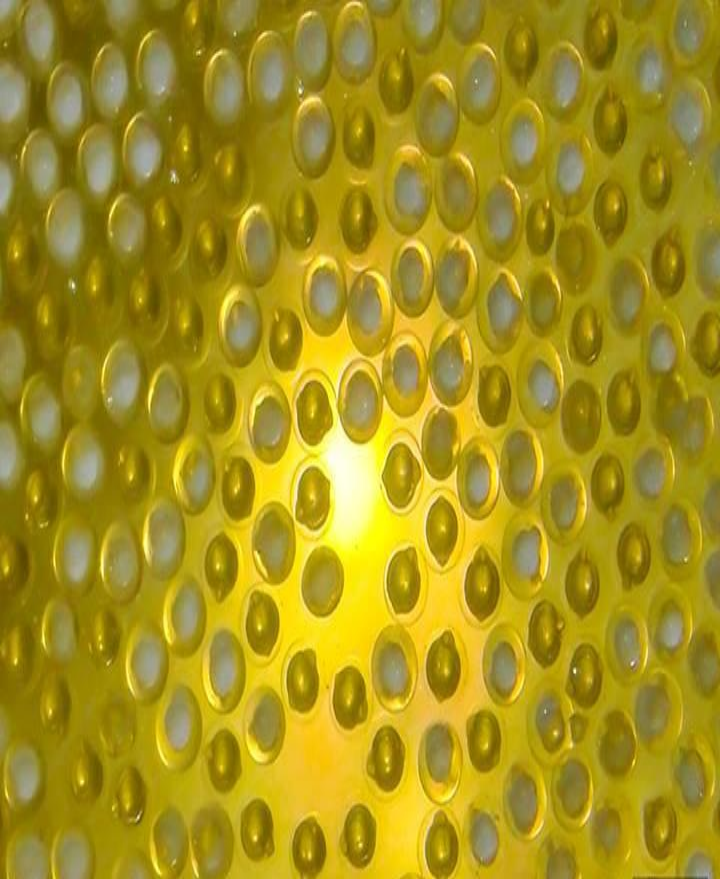
SUSTAINABLY MANAGED  
NATURAL RESOURCES



The CGIAR Livestock and Fish research program aims to increase the productivity of small-scale livestock and fish systems in sustainable ways, making meat, milk and fish more available and affordable to poor consumers across the developing world.

**Integrated R4D Approach of the Livestock-Fish Program**  
**Solution-driven focus on selected whole value chains**  
**in target commodities and countries**





# Current role of WorldFish- Bangladesh in Fish Seed Sector



# Working to improve fish seed quality

1. Training on good brood management and hatchery operation practices
2. Provided quality carp brood stock from riverine origin (nearly 50 tons to 79 hatcheries)
  1. Develop 210 families of Ruhu for selective breeding program
  2. Collecting spawn from riverine sources for nursing, rearing and distribution
3. Imported 14<sup>th</sup> generation GIFT tilapia fry in 2012 from Jitra Research station in Malaysia.
4. Established 4 Tilapia Breeding Nucleus hatcheries who distribute high quality brood stock to satellite hatcheries
5. 23 hatcheries producing GIFT Tilapia fry for grow out
6. Technical interventions for carp hatcheries (e.g. Aeration towers, Milt bank)

# Number of Hatchery

1. Carp hatchery-79 Nos.
2. Tilapia hatchery-24 Nos.
3. Shrimp hatchery-24 Nos.
4. Prawn hatchery-6 Nos.
5. Tilapia Breeding Nuclaus-4 Nos.
6. Carp Nursery- 51 Nos.
7. Tilapia nursery- 5 Nos.







# Milt banks



# Working to improve shrimp and prawn seed quality

1. PCR testing WSSV and distribution of WSSV negative PLs through private sector (379 million tested in 2013)
2. Developed algae lab for production of hatchery feeds
3. Virus and bacteria identification for shrimp hatcheries
4. Supporting prawn hatchery development

# Policy reform and Institutional Capacity

1. Regulations, tools and capacity to implement the new Hatchery Law
2. Review hatchery act/law and suggest recommendations in collaboration with DoF
3. Stakeholder consultations and analysis of implementation requirements, preparation of implementation program for the Hatchery Law in collaboration with DoF
4. Development of certification system, standards, training manuals/tools in collaboration with DoF
5. Training and awareness raising activities on adoption of hatchery law and insist registration from DoF
6. Regulations, tools and capacity to implement the new Feed Law





# Current role of WorldFish- Bangladesh in Fish Feed Sector



# Bangladesh Fish Feed Value Chains Study



Working Paper: 2013-34

Improving aquaculture feed in  
Bangladesh: From feed ingredients  
to farmer profit to safe consumption



RESEARCH  
PROGRAM ON  
Livestock and Fish



USAID  
U.S. Agency for International Development



WorldFish



Eastern Aquaculture  
Research System



RESEARCH  
PROGRAM ON  
Livestock and Fish



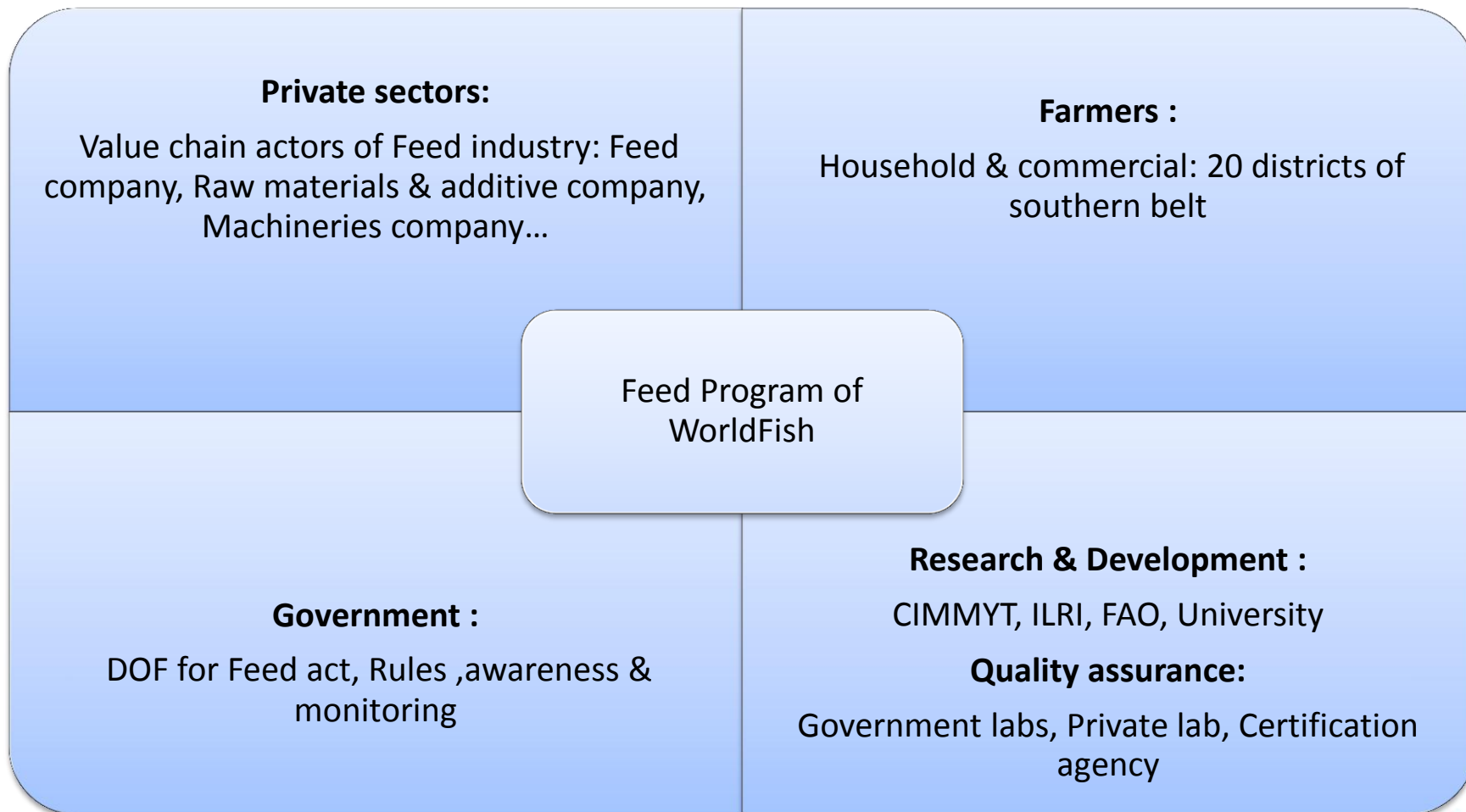
# **Key interventions proposed based on study findings and stakeholder consultation**

- 1. Increasing feed mill operation efficiency**
- 2. Customization of formulation matrix for better nutrient availability in feed**
- 3. Research on local available protein sources**
- 4. Collaboration for increasing production of local raw materials**
- 5. Development of feeding and culture practices**
- 6. Access to finance for small farmer**
- 7. Collaboration between development organizations for working in a single platform**



# Fish Feed Sector of WorldFish-Bangladesh

We are working with



## Our Feed intervention partners

- Commercial large feed company :1
- Auto Feed mill : 1
- Semi-auto feed mill : 10
- Raw material & Feed additive suppliers : 2
- Laboratory : 1
- Feed machineries suppliers: 1
- International partner for research & development : 2
- Partners for Feed policy : 2

# Categories of Farmer

- Household/Small Farmer
  - Do not use feed, use only raw materials, mashes, mixes or occasional use of farm-made feeds
- Commercial Farmer
  - Culture at high stocking density with commercial feed but lack good quality feed and proper feed management practices for culture systems



# Interventions for household/small farmers

- **Facilitate access to quality feed through portable and affordable semi-auto feed machine and feed raw material suppliers**
- **Semi-mechanized feed production, commercialization and capacity building**

# Semi-auto Feed mill for Small Farmer



# Interventions for commercial farmers

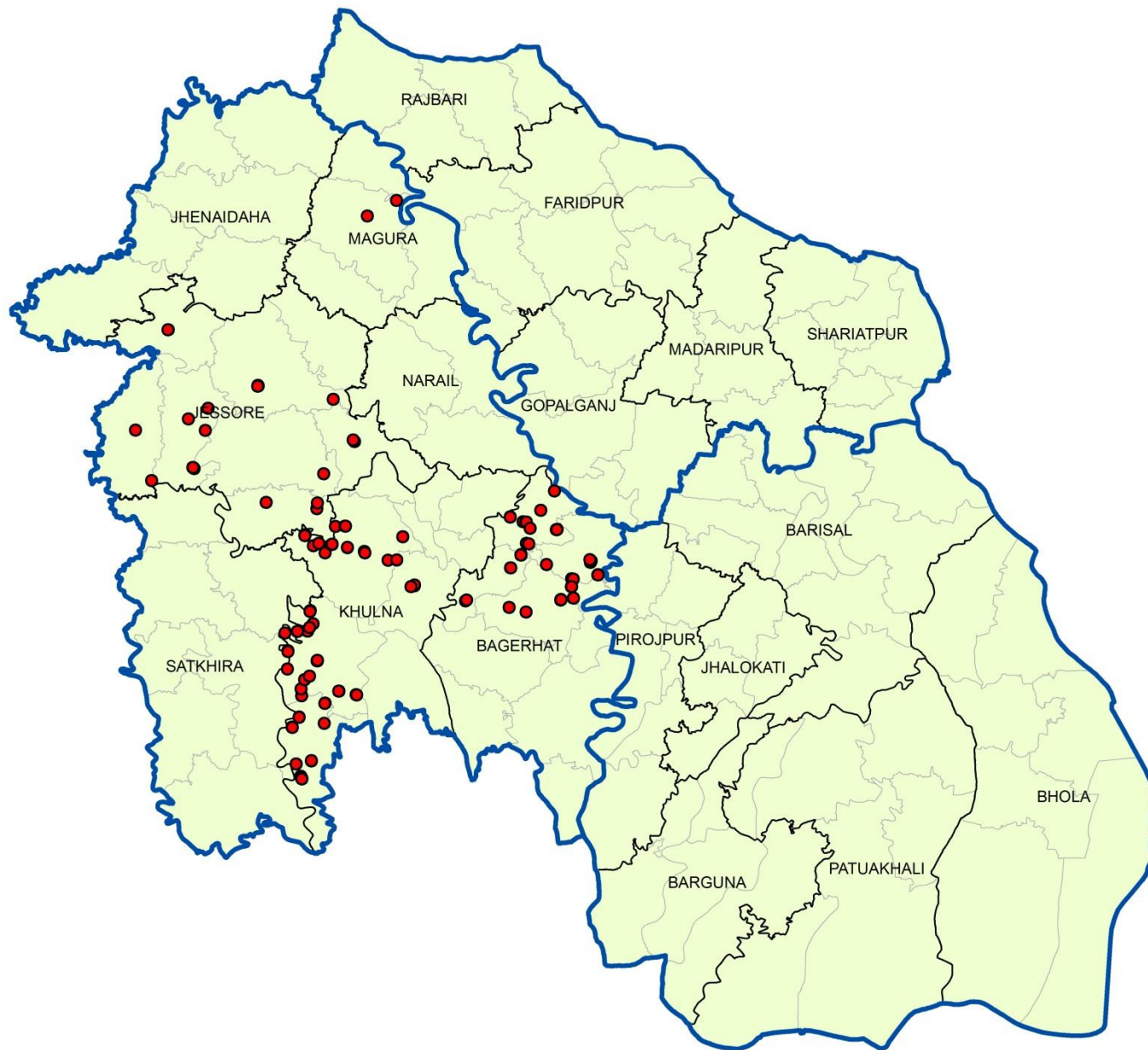
- **Facilitate access to quality feed for commercial aquaculture through commercial feed companies**
- **Capacity building of commercial feed companies to develop farmer feeding practices**
- **Strengthening embedded service provision, and assist with creating markets to increase feed availability**





# Other interventions

- **Develop local medium scale auto feed mills for customized feed production**
- **Strengthen feed distribution networks**
- **Develop understanding on raw materials and feed quality**
- **Review Feed Act and awareness building**

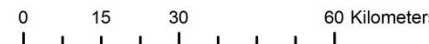
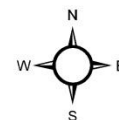


### Legend

#### Boundary

-  Division
-  District
-  Upazila

-  Location of Feed Seller /Dealer (partial data)





# Policy reform and Institutional Capacity

1. Regulations, tools and capacity to implement the new Feed Law in collaboration with DoF
2. Review feed act/law and suggest recommendations in collaboration with DoF
3. Stakeholder consultations and analysis of implementation requirements, preparation of implementation program for the Feed Law
4. Development of certification system, standards, training manuals/tools in collaboration with DoF  
Training and awareness raising activities on adoption of feed law and insist registration from DoF



# Thanks