



Leveraging **Black Tiger (P. monodon)** Growth - A Participatory and Inclusive Development Paradigm in Bangladesh

by

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Sundarbans, in Bangladesh, has the single largest mangrove forest in the world, and the natural habitat of two tigers:

Royal Bengal Tiger

and

Black Tiger

Shrimp, called

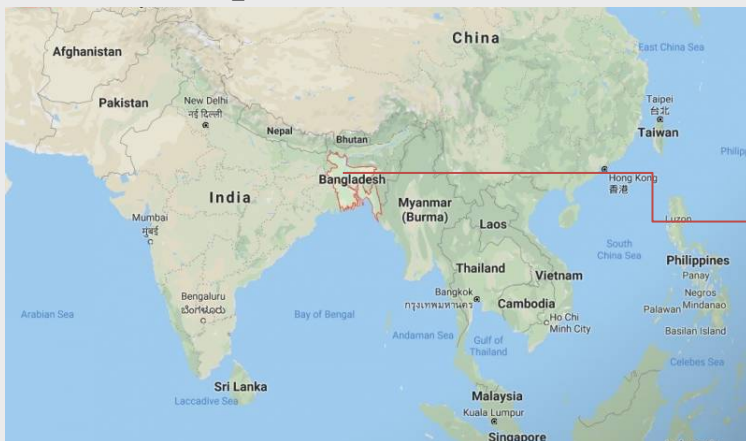
Bagda in Bengali.

We therefore have something very special to offer.



1. Why **Bagda** is special and important for Bangladesh?

- 1.1. **Bagda** is an indigenous variety known to the community all along the 710 KM of coastal belt of Bangladesh from time immemorial.
- 1.2. The culture of the species has important significance for multiple reasons.



Bangladesh



Why **Bagda** is special and important for Bangladesh? (contd.)

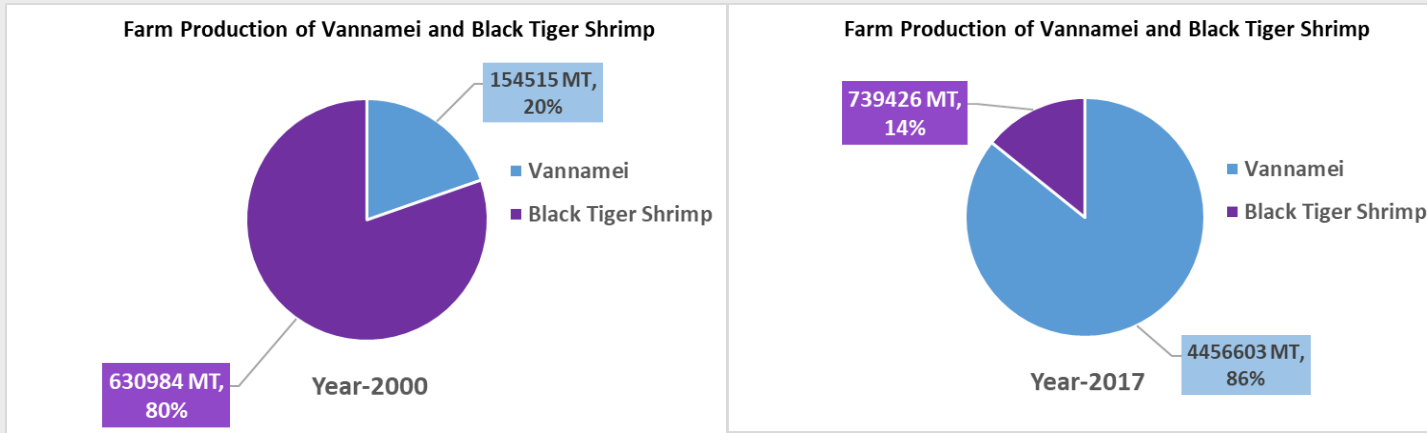
- 1.3. Black Tiger production is largely in keeping with specific resource endowments in the coastal region of the country (water, salinity and temperature).
- 1.4. More importantly, almost **2,70,000 shrimp farmers** are now engaged in the **traditional** or **extensive practice** of **Bagda** production over an area of about **1,85,000 Hectare**.
- 1.5. Shrimp production contributes importantly to our **GDP**, **employment generation** and **exports**.

2. Challenges

- 2.1. Mismatch in and unintegrated growth of the different components of shrimp industry: processing, hatchery and farming
- 2.2. Inadequate availability of quality seeds and feed
- 2.4. Lack of access to institutional finance: overwhelming dependence on middlemen
- 2.5. Low per hectare average production
- 2.6. Prevalence of diseases and dearth in adoption of bio-security measures to the desired level
- 2.7. Weaknesses in market linkages

Challenges (contd.)

- 2.8. Relative production of Black Tiger is now significantly less than that of Black Tiger. Internationally, former market for Black Tiger has largely been taken over by that of Vannamei.
- 2.9. Stiff price competition from Vannamei

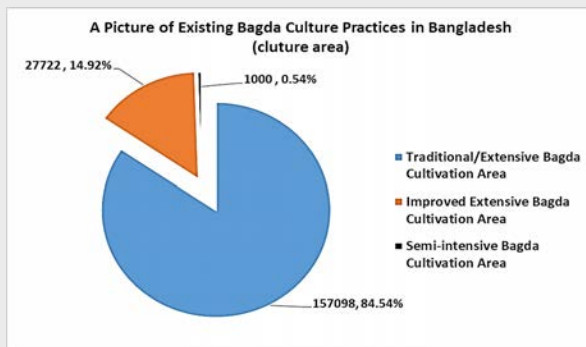


Source: FAO Statistics

- 2.10. International market uncertainties and volatility in international prices.

3. Opportunities

- 3.1. Bangladesh can increase production by **better local area management** and overcoming specific supply side constraints
- 3.2. Government's pro-**Bagda** development policies/ strategies/ plans, acts, rules will help.
- 3.3. According to draft National Action Plan, we can incrementally increase production.
- 3.4. Production can be increased by converting existing traditional/ extensive **Bagda** farms with an average yield of 330 KG/ Hectare to improved extensive culture practices with an increased average yield of 1200 KG/ Hectare.



1	Total Bagda Cultivation Area	184,821 Hectare
2	Traditional/ Extensive Bagda Cultivation Area	157,098 Hectare (84.54%)
3	Improved Extensive Bagda Cultivation Area	27,722 Hectare (14.92%)
4	Semi-intensive Bagda Cultivation Area	1000 Hectare (0.54%)

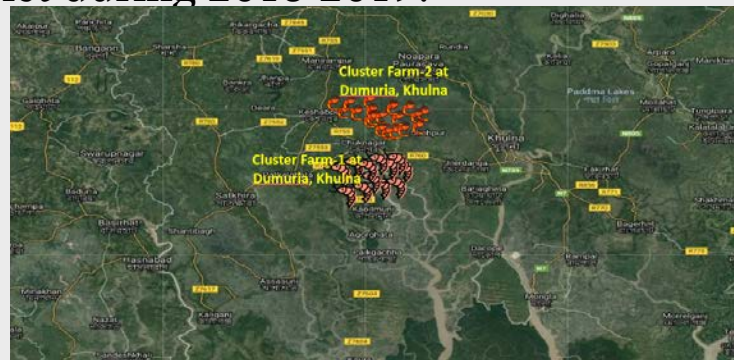
Source: DOF, Bangladesh

Opportunities (contd.)

- 3.5. The draft National Action Plan stipulates, among others, setting up of about **20 SPF Bagda hatcheries** (currently, there are 2 SPF **Bagda** hatcheries) to supply about **3 billion PLs** by next 5 years.
- 3.6. A US\$248 million development project with support from World Bank is presently being implemented in the country. Of the amount, US\$30 million will be given as incentives **in the form of GRANTS** for private sector investments in **SPF hatcheries, Brood Multiplication Center (BMC) and cluster farming practices**.
- 3.7. More importantly, there is still a **niche market** for **Bagda** in important consumer countries like **Japan, Europe, USA and China**.

4. A Participatory and Inclusive Development Model for Shrimp Culture: Clustering of Small Farms

- 4.1. Adopting a participatory and inclusive development through formulation of cluster of small farms will, we hope, help us.
- 4.2. We plan to convert gradually the existing traditional farms into improved extensive farms.
- 4.3. BSFF and DOF have already initiated two pilot projects in Dumuria under Khulna district during 2018-2019.



A Participatory and Inclusive Development Model for Shrimp Culture: Clustering of Small Farms (contd.)

The cluster approach has several features:

4.4. The Basic Principles

- 4.2.1. The approach will be eco-friendly with focus on **conservation of environment**, especially mangrove forest
- 4.2.2. **No horizontal expansion** is planned, **only vertical expansion** of existing shrimp farms

4.5. The approach aims at ensuring:

- 4.5.1. **Better area management** by careful selection of suitable farm sites and mobilizing of selected farmers into clusters
- 4.5.2. **Establishing backward linkage** between farms with input suppliers on the one hand and **forward linkage** between farms and exporters/processors on the other.
- 4.5.3 **Imparting Trainings** for capacity building (GAqPs, BMPs, HACCP, GFvPs etc.) for compliance with **standards relating to food safety, environmental sustainability, economical viability and social responsibility** including labor rights

A Participatory and Inclusive Development Model for Shrimp Culture: Clustering of Small Farms (contd.)

The approach will also work to facilitate:

- 4.5.4. **Digital record-keeping** of production data all along the value chain for introduction of **E-Traceability** and promoting **transparency and accountability**
- 4.5.5. **Empowerment of farmers** to ensure the following:
- 4.5.5.1. **Financial empowerment** by promoting **access to institutional finance** based on Bankable business plans, and thereby reducing the current overwhelming dependence on middlemen.
- 4.5.5.2. **Socio-economic empowerment** by having representation of the cluster farmers on the **Project/ Cluster Management Committee** headed by Head of Upazilla Fisheries Officer along with other representatives from relevant stakeholders and **social recognition** of the farmers by equipping them with **Smart Cards**
- 4.5.5.3. **Knowledge empowerment** by acquiring knowledge on GAqP, BMPs, CoCs etc. will contribute to the promotion of **environmental sustainability**



5. The way forward as we look at it

- 5.1. The world can ill afford the extinction of **Bagda** as a species in the face of stiff competition without certainly endangering the bio-diversity in the coastal ecosystem of producing countries and the livelihood of millions of small and medium farmers.
- 5.2. We can all benefit by promoting *P. monodon* (**Bagda**) shrimp as a premier brand and assuring a due market for it that would help both the producers and the quality conscious consumers.
- 5.3. The Black Tiger producing countries need to –
 - collaborate and jointly **develop a strategy for technology and production innovations** as well as **market consolidation and promotion**
 - engage potential retailers, importers, exporters and policy makers to support the formulation and implementation of the strategy
 - consider establishing a **networking arrangement** for free flow of information relating to production data, exchange of ideas on emerging technologies and market

Thank you

