

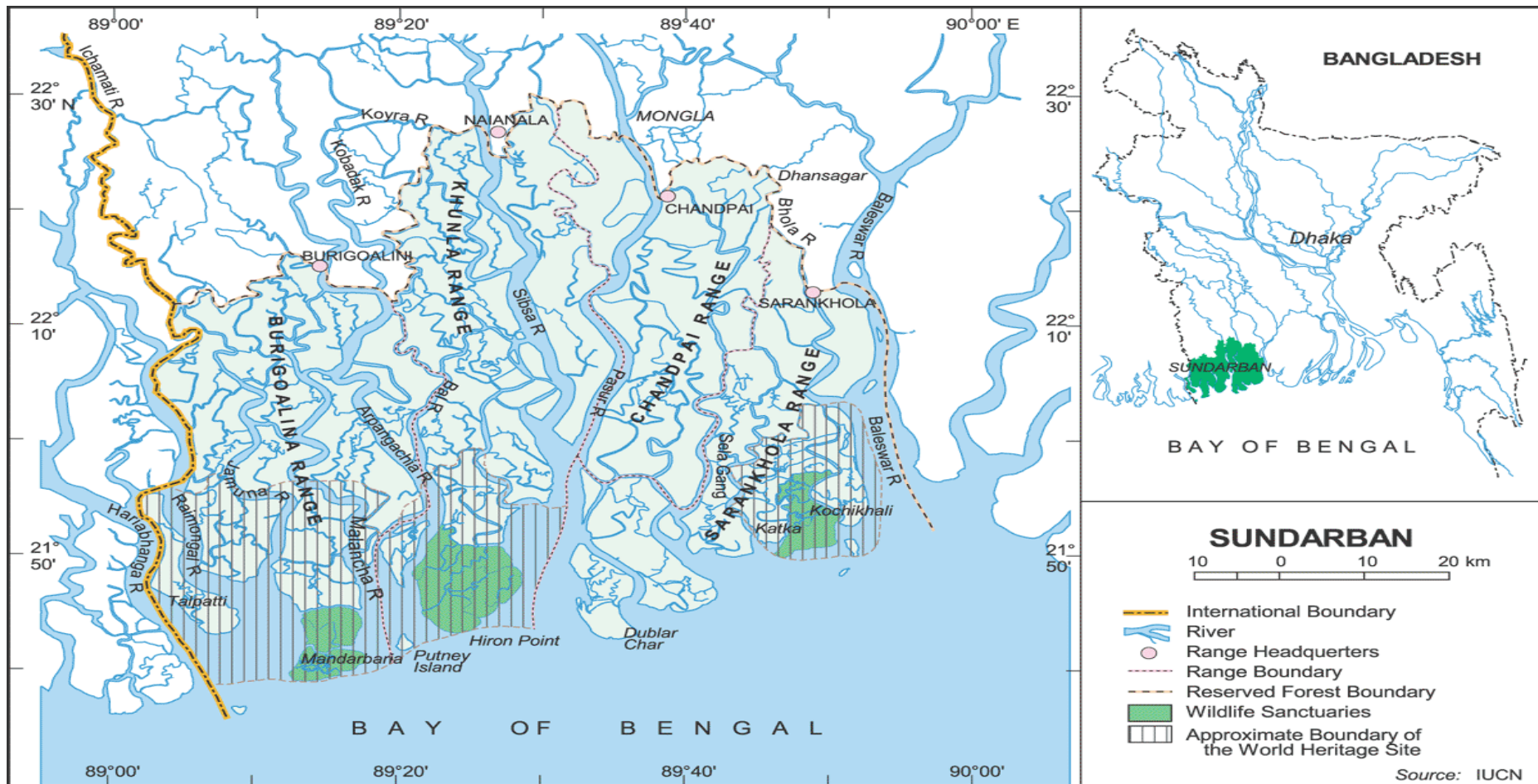


Community Mangrove Aquaculture at Sundarbans Impact Zone: Example of using traditional knowledge in adaptation to climate change

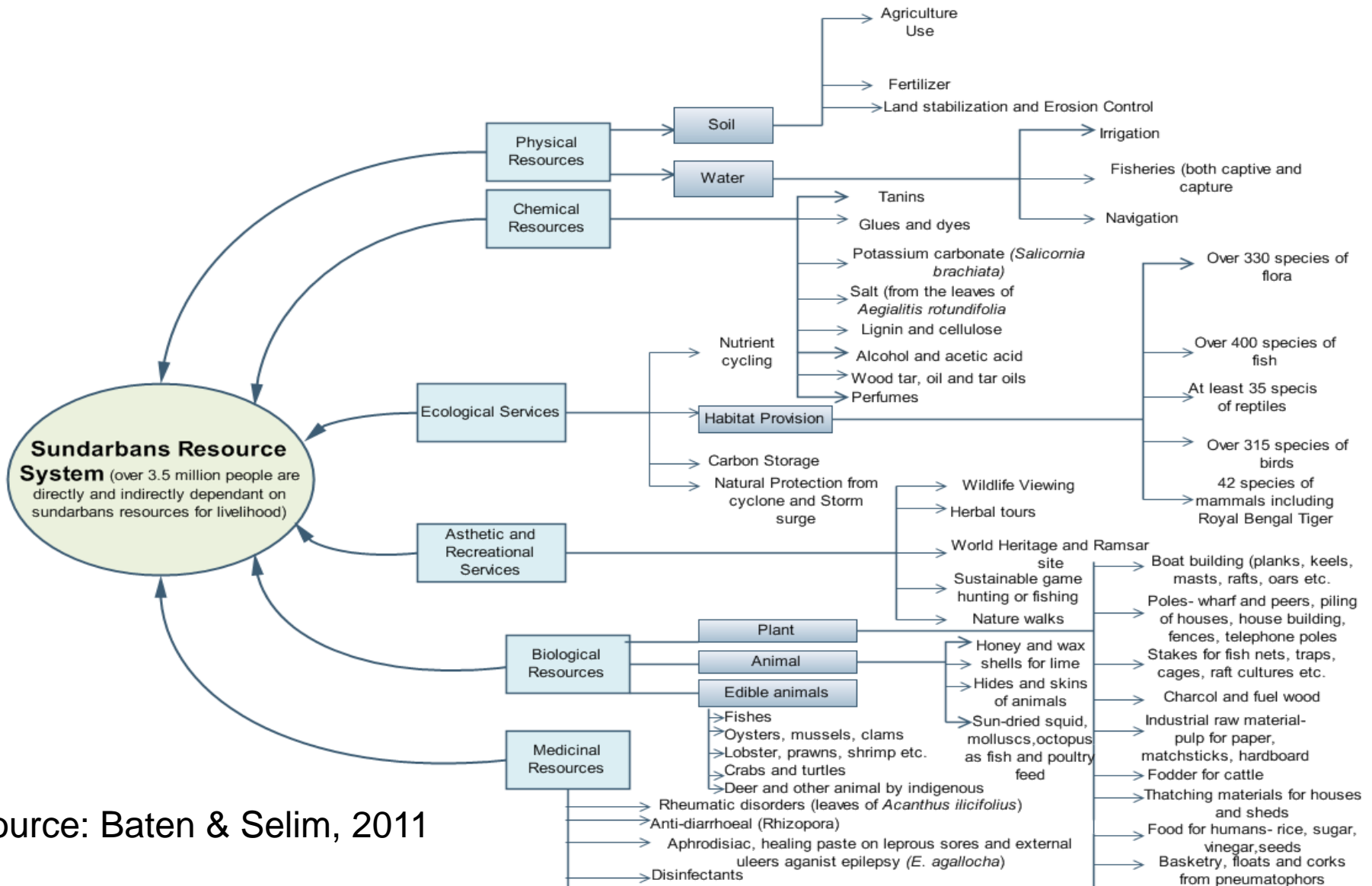
Mohammed Abdul Baten
IPSI second Global Conference, Kenya

The Sundarbans

World's largest single block of mangroves comprising a total area of 10000 square kilometres placed in between Bangladesh and India



Sundarbans provides multiple resources



Source: Baten & Selim, 2011

Traditional Resource Communities of Sundarbans

3.5 million people directly or indirectly depend on the Sundarbans for livelihood

- *Bawali* (Wood Cutter and Nypa Palm collector)
- *Mouwali* (Honey Collector)
- *Jele* (Fisher man)
- *Chunari* (Snail and Oyster Collector)
- Prawn fry collector
- Crab farmer
- Small scale honey and timber businessman



Vulnerability to Climate Change

- Sea level rise (28 cm sea level rise by 2070 & 40 cm by 2100 -IPCC 4AR)
 - A rise of 40cm may inundate 11-17% of land in coastal areas.
 - 40 cm SLR would submerge two-thirds of the Sundarban
- Cyclones (Sidr in 2007, Aila 2009)
- Salinity Intrusion

Cyclone Aila...



Sea level Rise



Salinity Intrusion



Community Responses

Community Mangrove Aquaculture

- Community started cultivating mangrove species along with crabs, oyster, shrimps and fishes (Pershe, vetki and the like) in saline water logged lands otherwise those were fellow



Cultivation Method

- Site Selection
- Species Selection
- Farm Construction

Figure: Model of CMAS Culture Farm



Figure: Types of Mangrove Cultivated in CMAS Culture farms (by Percentage)

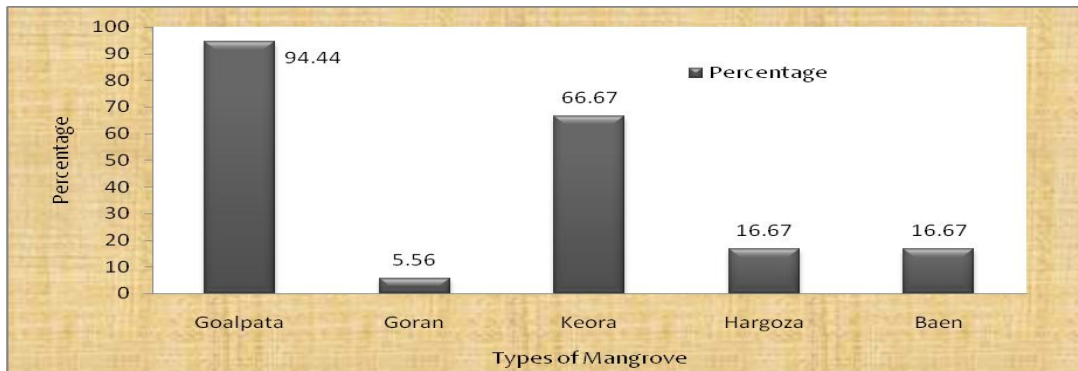


Figure: CMAS Culture Farm

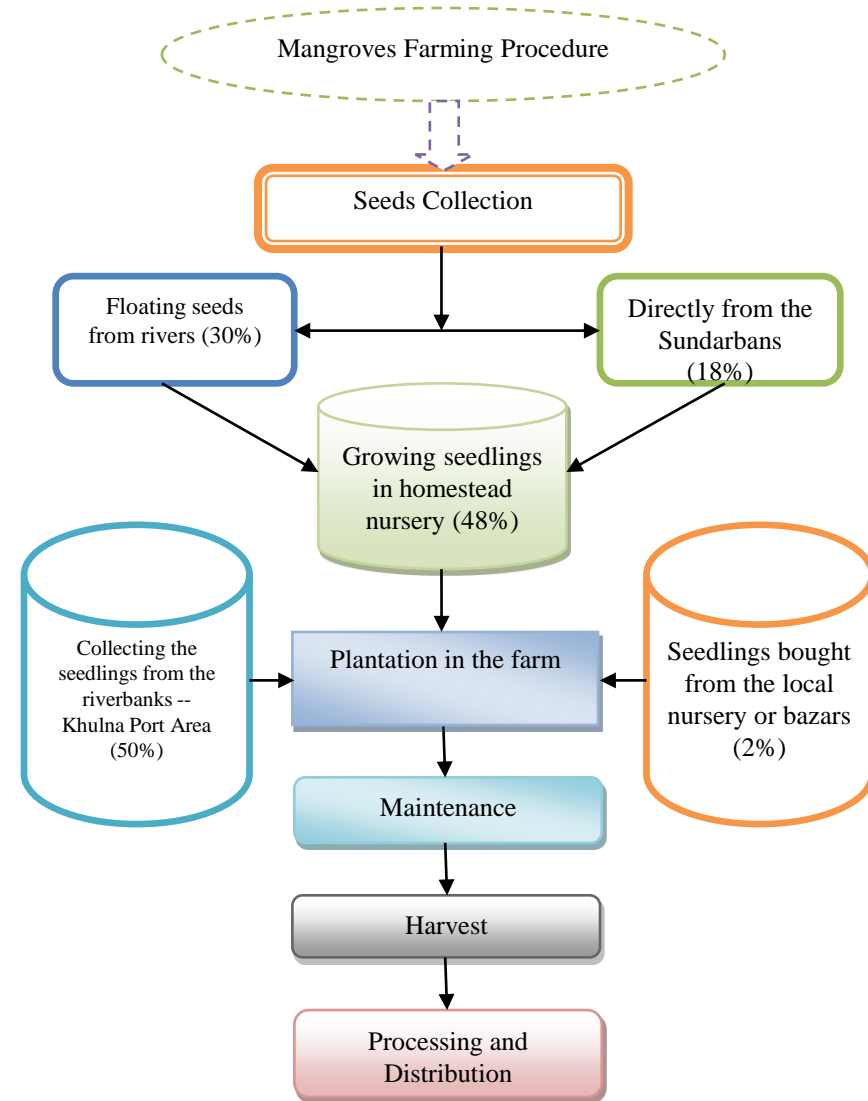


Cultivation Method

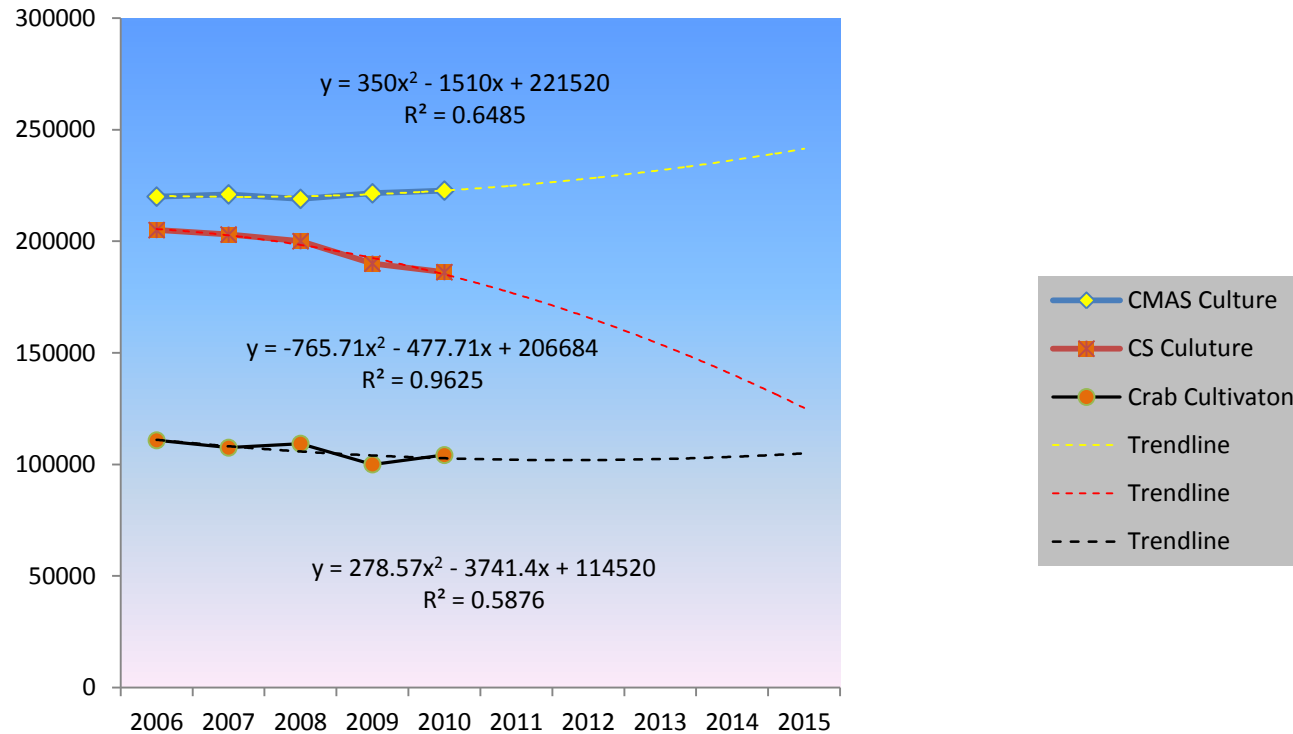
- Seed Collection
- Nursery Establishment
- Plantation in the farms
- Maintenance of the farm
- Harvesting

Table: General Farming Pattern (Temporal) of Mangroves Cultivation

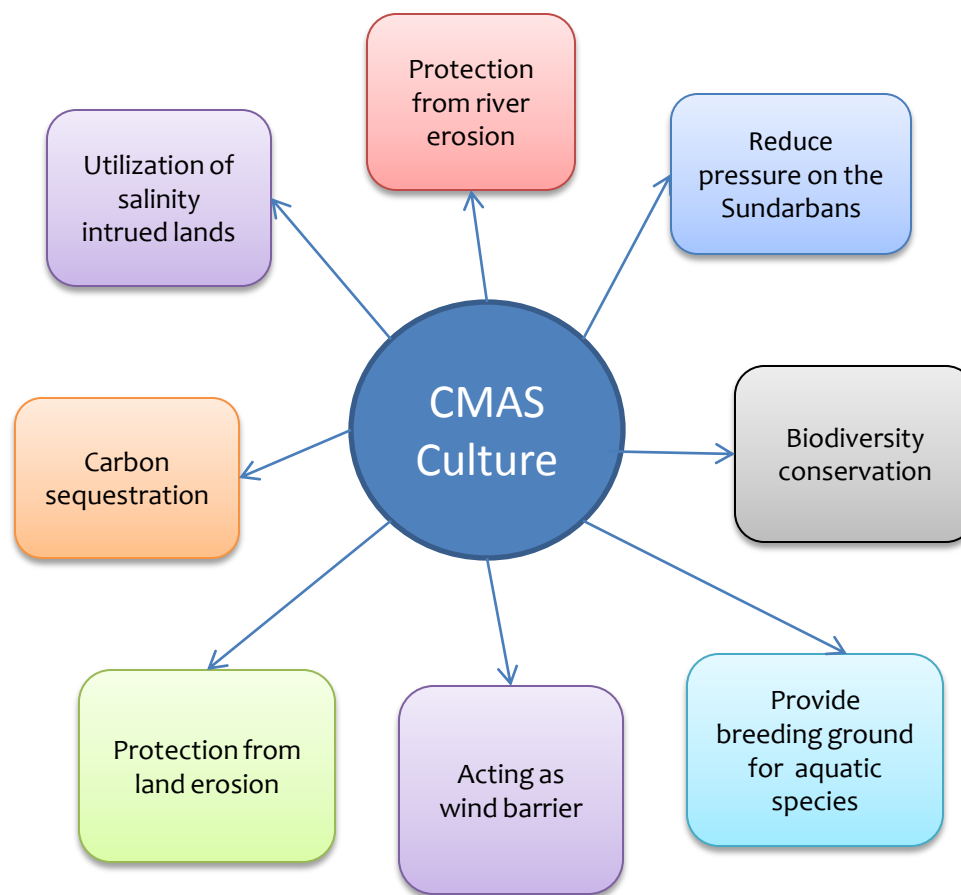
Name of Mangrove	Seed collection and seed bedding	Plantation	Time from seed bedding to harvesting (month)
Goalpata	July	August	13-14
Keora	August	September	62
Hargoza	July	August	62
Baen	August	September	62
Possur	July	August	98
Goran	August	September	14



Economic suitability of Community Mangrove Aquaculture



Ecological Value of CMAS Culture



Thank You

