Supplementary Information

Table S1: Stakeholder perception of how driver variables may change going forward to 2050 (scores are semi-quantitative: 3: very large increase, 2: major increase, 1: some increase, 0: no change, –1: some decline, –2: major decline, –3: very large decline). Scores from four breakout groups (A–D) and the average are shown as well as additional qualitative data recorded.

No.	Variables	A	B	C	D	Av.	Aggregated comments
1	Tourism	3	3		2	2,667	Government support and increased tourists for tiger sightings.
2	Food prices	3	1		2	2	Previous trends and increase of transport costs point to increasing food prices.
3	Agriculture cost	2	2	3	1	2	Two groups predicted increasing trends but of varied amounts. Drivers of change mentioned were increased cost of water management, materials, transportation and so on. If indigenous seeds were used instead of high-yielding variety then costs could go down.
4	Cost of aquaculture inputs	2	2	3	1	2	Costs such as protection cost to mitigate surge intrusion, cost for using developed techniques, feed and water management.
5	Education delivery	2	3		1	2	More schools and better access, due to demand. Although it will cause outmigration.
6	Seasonal migration for work	1	2	3	2	2	There were mixed views for example, migration would take place for jobs, and saturation of carrying capacity of land, increased monocrops and lack of employment but also due to climate hazards.
7	Area of Aquaculture	2	2	1	2	1,75	All but one group said that there would be major increase in aquaculture area. One agreed that there will be some increase in aquaculture land, the reasons being population growth and increase in demand. There would be decrease in agricultural productivity and change of agricultural land into settlement. Another group had contradictory views of increasing trends by pointing to challenges for the growth as being disease, decreased land availability and conflict with certain castes who will not give up their land for aquaculture.
8	Transportation and access	1	2	2	2	1,75	More roads, bridges, proposed by government, new types of vehicles run by self employed youth, more market opportunities drive demand for better connectivity.
9	Village infrastructure	2	1	2	2	1,75	Electricity will be provided to all villages but overall rural development is hindered due to mismatch in release of funds from the government and limited time due to monsoon period. One also said that embankments, a necessary infrastructure, cannot be built due to missing landowners in villages.
10	Area of Agriculture		-1	-3	-2	-2	Reasons for some decline are mentioned as natural disasters,
11	Wild harvests (not marine fishing)	-3	-1		-2	-2	Strict regulations and reduced production will cause a drop in wild honey harvesting.
12	Freshwater supply into the Sundarbans	-2	-2	-2		-2	Major decrease in trends was predicted across all groups due to blocked rivers, siltation, lack of dredging and, loss in connection, increased population which encroached river areas.
13	Land holding size		-2	-3	-1	-2	All groups predicted decreasing trends varying from some to very large decline (estimated to decrease by half in 2050) due to large scale land erosion.

A full narrative description of the four future scenarios developed for the SBR region is given below. Scenarios are aligned against axes of uncertainty surrounding the intensity of agriculture and aquaculture production and the degree to which delta development is planned or unplanned (**Figure 4**).

Scenario A. Locally Dominated Delta: Here relatively small-scale localised agricultural/aquaculture practices are coupled with lowly planned investment in urban and coastal infrastructure development on the delta. This scenario would still see urban growth of low quality and unplanned in nature, and coastal defence and management infrastructure is poorly maintained. There remains some development of smaller-scale agro-businesses for both agricultural and aquaculture activity and even some areas of high-intensity production as well as poorly managed tourism in the Sundarbans. This scenario has little formal protection of the coastal zone or maintenance of the existing defences and tends to see unmanaged, low-quality, urban infrastructure encroachment. The jobs associated with food production are mainly outside the study area. A lack of investment sees increases in soil salinity, erosion, and land degradation drive areas of abandonment and land loss. The population is rising with high in-migration for agricultural/aquaculture labor, which is partially mitigated by high out-migration to urban areas (mainly Kolkata).

Scenario B. High-Technology Sustainability: In this scenario, there is a commitment to sustainable agricultural production at a local level through small-scale ownership and cooperatives. Land-use change is dominated by urban development but there is protection of higher-value land such as higher-yielding farming practices (double/triple cropping) and high-value, sustainable aquaculture such as polyculture with native species including high-quality *P. monodon*. Products are handled in the delta with a focus on diverse, premium, high-value products in combination with planned, high intensification of urban infrastructure, including coastal defence and management infrastructure. This scenario relies upon highly technical but locally appropriate solutions and an integration of urban intensification and sustainable agricultural production. Pollution is highly processed and human waste is utilised to support organic farming methods as opposed to fertilizer. This approach would encourage high levels of food production with the value chain being within the delta (as opposed to products being moved to be processed in Kolkata) and encourage high levels of technical innovation and maintenance. Land loss is minimised and land use strictly managed. Population is rising from international migration but with lower levels of out-migration than currently occurring.

Scenario C. Agro-Business Delta: This scenario sees poorly managed short- to medium-term agricultural/aquaculture intensification and the dominance of agro-business coupled with a continuation of poorly planned urban infrastrucure. Investment in aquaculture fuels conversion to short-term intensive, high-input aquaculture, which delivers high short-term returns to investors but has poor long-term sustainability, leading to abandonment and conversion to brickfields. Urbanisation occurs mainly to support the agricultural/aquaculture intensification. There is some patchy protection of high-value land but land loss, salinity, and degradation are high and are accompanied by a tendency to move production when conditions degrade, as opposed to investment in protection. Urban development is of low quality, producing unregulated pollution, further degrading land, and is urban settlement, progressively exposed to environmental hazard. In this scenario, environmental degradation, economic decline, and low urban investment occur as money is moved out of the delta. This scenario drives international migration for poor-quality jobs and out-migration to main urban centers out of the coastal zone. The SBR population is stable and then declines, especially beyond 2030 as land degenerates, leading to the lowest population scenario in the SBR within this framework.

Scenario D. Urban Delta: In this scenario, investment in the delta is dominated by planned urbanisation at the expense of agricultural development, apart from highly managed, high-

intensity agricultural and aquaculture production areas. In effect, the coastal zone becomes an extension of the Kolkata megacity and extensive rural agriculture declines dramatically. The SBR is included in the sustainable urban development but suffers from increasing population pressure. Aquaculture is still extensive in the flooded areas where urbanisation is too expensive. There is increasing reliance on embankments and coastal defence/management infrastructure to protect the growing urban areas, minimising erosion. The population growth would be the highest of the four scenarios with both inward migration and less migration out of the area.