1. **BACKGROUND:**

With annual 167.2 million tonnes fish production fisheries and aquaculture became the potential contributors to food and nutrition security and livelihoods at global level (FAO, 2016). Almost 90 percent of aquaculture production takes place in Asia. In 2005, the estimated population living within 100 km of the coast reached about 452 million people, equivalent to about 79% of the region’s total population. One-third of the inhabitants i.e. more than 120 million people, particularly those living in coastal communities depend directly on local marine and coastal resources for their income, livelihoods, and food security. The coastal aquaculture is the most important fishery activity in Southeast Asia, with more than 30,000 households spread over 64,000 hectares earning a livelihood from shrimp farming (ADB 2016). Worldwide marine and freshwater species and habitats are at risk from climate change impacts (Allan *et al*., 2005; FAO, 2005), with higher vulnerability of tropical ecosystems (Portner *et al*., 2014), particularly South Asian Region. The drivers of climate change include warming of water bodies, sea-level rise, ocean acidification, weather pattern changes and extreme weather events (Cochrane, 2009) that severely impact coastal and marine resources, and the industries and activities that rely on them. These climate change impacts on costs involved in aquaculture and fishery, their productivity, and livelihoods and safety of fishing community (Daw *et al*., 2009; Badjeck *et al*., 2010). Fish feeding, migration and breeding behaviour are probably affected by the climate change (Brander, 2010). Rising temperatures also lead to a reduction in fish production, threatening the entire region’s fish and marine products production potential. Warmer temperatures lead to the loss of the normal healthy color of the corals, resulting the breakdown of the symbiotic relationship between corals and the algae that provide fish food. Climate change would also likely contribute to the gradual destruction of mangrove vegetation, coastal sea life, and degradation of prized tourism destinations, thus threatening major economic activities. Advancing sea levels and coastal erosion are causing mangrove forests to retreat in order to maintain their preferred environmental conditions. The IPCC (Intergovernmental panel on climate change) projected
that with a 1 meter rise in sea level about 2,500 square kilometers of mangroves in Asia are likely to be lost.

On the other hand some new opportunities and environments may be created with sea-level rise. New habitats may open up (Easterling et al., 2007), and flooded coastal agricultural land may provide new areas for mangroves and aquaculture opportunities. New fisheries may become available as fish populations shift geographic distributions, and some ocean areas may experience increased productivity, which could increase the catch potential of some fisheries.

2. OBJECTIVES:

- To identify the climate change impacts on costal fisheries and aquaculture and fishing communities in the SAARC region
- To identify the adaptation strategies to be pursued to mitigate negative impacts of climate change through research, capacity building, education and awareness building
- To identify issues that need to be addressed to integrate climate change adaptation measures into the planning and management process in the costal fisheries and aquaculture sectors

3. EXPECTED OUTCOME:

- Documentation of the information and experiences on climate change impacts on costal fisheries and aquaculture in the South Asian region
- The regional consultation meeting will increase the awareness among stakeholders regarding the possible climate change impacts and their adaptations strategies.
- The consultation meeting will create opportunity to integrate climate change adaptation measures into the planning and management process in the costal fisheries and aquaculture sectors in the member countries.
4. TARGET PARTICIPANTS
- SAARC member countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka)
- Bangladesh Fisheries Research Institute (BFRI)
- Faculty of Fisheries, Bangladesh Agricultural University (BAU)
- Department of Fisheries, Bangladesh
- BARC
- Private Institutions
- World Fish
- FAO

5. VENUE
The consultation meeting will be done through video conferencing. The meeting will be conducted at the video conference facility of SAARC Agriculture Centre, Dhaka with the participation of focal point experts from their respective institutions/organizations through video conference.

6. DATES
20 December 2016, Tuesday

7. MEETING AGENDA
Part I: Inauguration
Part II: Technical session (Country paper presentation through video conferencing)
Part IV: Presentation of recommendation

8. ORGANISED BY
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