Shrimp Value Chain Analysis -

Process	Resource/Harvesting	Fishing Vessel	Fishing Piers to auction hall Auction hall to processing plants	Processing	Export
Measure	•**1120 km coastline** •**50,270km** Continental shelf area •**15** Commercial prawn species •**88000 mt** Shrimp Biomass •**20000 mt** Maximum Sustainable Yield MSY •**22000 mt /year** Present catch • Production status= overexploited ; constant decline in last 13 years (from **29,638 mt** in1997 to **22,000 mt in 2010**) • Shrimp harvesting legislation on close season not properly framed •Increase in export demand projection (10% /annum) and domestic demand (2.8%/annum) •**385,000 ha** Indus river delta suitable for shrimp aquaculture not utilized at all. • Mangrove forest breeding ground reduced (**from 60000 ha- 30000 ha**) in last 20 years	•Semi Industrial Fleet (Trawlers Gill netters =15209, Trawlers 1810; mechanized small boats 9000; sailor boats 21576)) •**90%** Artisanal shrimp fishing •**85%** boats use low gear technology •**100%** shrimp placed on deck/below deck /wicker basket on board in artisanal boats •Same day returning boats don't use ice • Majority Vessels without cool chain/other facilities as per EU standards • catch per boat average contain 83% trash fish;9% shrimp; about 7 % commercial fish. • No beheading /peeling/done on board •**28 %** of total shrimp catch degraded due to post harvest losses on deck/board •Export- triggered benefits at the cost of ecological sustainability	•Over 2000 trawlers occupy the Karachi fish harbor as against a capacity of 700 •Crowding delays off loading/spoilage • Beside Karachi harbor ,13 other landing sites ; all underdeveloped and poorly equipped as per SPS standards •Korang harbor handle large boat landing •Transaction from landing site to auction hall unhygienic & costly •Only 1 auction hall modified as per EU standards but not *par excellence* • Mole system of financing with buy back guarantee of catch at exploitable rates • Karachi harbor poorly managed due to multi-organizational support & regulation • CA's failure in regulatory functions •Inadequate technical knowhow on landing mechanics to arrest 7% waste at this point	•Pakistan has a fish and seafood industry worth US$1.2 billion •60 processing plants registered with Pakistan seafood exporters association . Of which ; 27 do frozen packaging; 2 canning; and 8 fish meal plants • Before EU ban 11 were EU approved and all were delisted in 2007 . •5 reportedly ready for EU inspection •6 HACCP approved & 3 ISO certified •25 % of total capacity utilization at processing plant level (total capacity=600 mt /day) • Only de-heading and peeling or freezing with head-on •A Korangi harbor processing plant FDA USA, approved without a business park • shrimp peeling is a vendor industry in which about 3000 women works under most pathetic conditions. • No Peeling shed no potable water and toilets available at peeling sites	•22% of fishery production exported :12% is from shrimp • EU was major & lucrative market (40 % of total shrimp market; UK 24.6% &Germany 6.4%) before EU ban • shrimp export value 130 m U& $ • . Alternate export markets explored ;7 new export destiny now •Non compliance ; a potential threat to exports to non EU countries • 49% export is of small kiddi shrimp •VC analysis show relative cost of raw material much higher than competing countries but correspondingly lower packaging, labour & management cost; • ocean freight to EU constitutes about 70% of the export cost. • Least value addition initiatives to meet the importer demand • Decreasing size of available shrimp for export causing low return
Analyze	•Causes of shrimp resource depletion : loss of mangrove natural breeding grounds ;illegal fishing by ban nets; on observance of close season; pollution; and reducing delta; • No management system (MCS); •No stock assessment in 20 years •No stock replenishment Program • No restriction on new boat entry •Poor legislation & enforcement • Lack of shrimp aquaculture to substantiate shrimp production • Very Low export supplementation from inland sources	•Boats not in accordance with EU standards • Poor cool chain maintenance at board. •Poor legislation/enforcement and poor code of conduct ;policy failure • Poor technology;; high spoilage%; low return • No MCS and no SPS and management • Poor traceability	•Injection of informal credit (mole) system with its plus & minuses •High transport cost/losses •lack of SPS management /control •Poor /crowded landing sites /n hall facilities and management led to EU ban • New landing sites needed with development of small jetties at Korangi	•Inefficient shrimp processing ; long cooling times& high electricity inputs • low capacity utilization leads to forgoing of needed scale economies •Imposed supply chain constraints •No business Park at Korangi •Non Compliance leading to non competitiveness	•EU ban deprives competitiveness capabilities • Port clearance procedures time consuming and expensive •Large price difference due to differential average export value and production cost
Improvement	•Environmental sustainability through MCS based shrimp production & capacity building for its implementation • Legislation to restrict new trawler / boat access to sea & close season • Development of code of practice • Revising laws & authority on illegal nets and netting .thereof •Fisheries Dev Board capacity building to play strategic role in fishery sector •Initiate shrimp restocking programme • Assess opportunities for developing Mangla fishery to supplement export •Stoppage of usage of illegal nets •Develop Baluchistan Coastal fishery	• Development of SPS laws and management and to train and provide technical assistance in SPS system •Development of Food safety laws and mechanics for its implementation •Train and provide technical assistance to reduce by-catch & landing management •Inculcate traceability along supply chain •Developing conformity infrastructure •Prioritize corresponding TRTA II critical interventions by creating working group • Development of Fishery sector CBS (competitiveness benchmarking system) , its pilot implementation and training	• Development of Food safety laws • Assist developing new landing jetties at BabaBhit & Korangi harbor to check Karachi harbor landing congestion. •Ascertain & analyze guarantees provided by CA to implement action plan to lift EU export ban • Identify level of preparedness, existing gaps & technical assistance to fill the void • To assess current & potential alternate fish exploitation & market finance /credit system •Increase awareness through newsletters /website	• Increasing training of staff in SPS, and food safety standards . •Development of a peeling shed with civic amenities • Addressing Gender issues by eliminating inhumane working conditions in women-oriented peeling of shrimp . • Resolving logistic issues • Capacity building for model development of Value added product • Measures to ensure quality and regular supplies • Promoting viable shrimp aquaculture	•Economics engineering based studies for its application on fishing industry benchmarking •Facilitate removal of EU Ban •Development of business park at Korangi harbor & supporting vendor assurance initiatives •value addition and cool chain development to enhance export • Availing existing /future global market opportunities by appropriate compliance / competitiveness. • Unofficial landing sites be also developed as per SPS standards
Control	• Close monitoring of shrimp management and code of practices • Strict enforcement of laws/penalties on usage of illegal nets • Control on Close season catching • Control for responsible aquaculture	• Regular check on hygiene, sanitation and cool chain maintenance at boat level • Regular training programs held and quality controlled • Laws formed; enforcement visible	• Regular Inspection needed which is not there • Regular Inspection and strict control by law enforcement agencies • Hygiene, Pest Control, SOPs required & need to be checked regularly	• Regular Inspection of processing units by CA • Labour laws implemented for working women/proper enforcement • Control over processing steps and materials used in processing	• Export development oriented organizations moved to play promotional role •Regular SPS/MCS monitoring • EU ban Lifted •

Establishment of a functional MCS system and food safety and animal health control system (SPS) from "farm to fork" for all the produce