

Ecosystem Management Action

Problems identified in CCA	"Problem Issue"	Regional target (2020)	General action	Ideal Management Action			Analysis of Planned & On-going Management Actions			Feasible Management Actions by 2020			Technical Feasibility	Remark
				Technical	Institutional	Legislative	Technical	Institutional	Legislative	Technical	Institutional	Legislative		
Ecosystem changes (lower trophic level and benthos)		Provide relevant information to understand and predict ecosystem status	Assess and monitor the impact of N/P/Si change	harmonized and coherent monitoring methodologies	Establish cross-basin monitoring network	[note: noting needed???	countries have different sampling methods and seasons; regular survey only cover limited area; not designed to reveal basin-scale changes	no cross-basin monitoring due to lack of co-ordination among different agencies;[note: is this institutional????]		harmonized and coherent monitoring methodologies	Establish cross-basin monitoring network	[note: noting needed???] regional agreements for joint monitoring?		
			Assess and monitor the impact of climate change	harmonized and coherent monitoring methodologies	Establish cross-basin monitoring network	[note: noting needed???	ditto	lack of taxonomists [note: did not understand] seems misplaced for impact of climate change; move to technical? Unless it's a need for more funding to train taxonomists		harmonized and coherent monitoring methodologies	Establish cross-basin monitoring network	[note: noting needed???		
			Monitor the tranboundary impact of jellyfish blooms	develop monitoring methodologies	Establish monitoring network	[note: noting needed???	ditto			develop monitoring methodologies	Establish monitoring network	[note: noting needed???		
			Predict ecosystem change in the long run	develop models to predict ecosystem change and its impact on fisheries	establish regional science committee to do what?	incorporate the prediction into management policy	no activities [delete] keep, so reader knows no current efforts are in place	no activities [delete] keep, so reader knows no current efforts are in place		develop models to predict ecosystem change and its impact on fisheries	establish regional science committee to do what?	incorporate the prediction into management policy		
			Monitor the tranboundary impact of jellyfish blooms	develop nat'l and reg'l monitoring methodologies	Establish international monitoring network	[note: noting needed???	no co-ordinated monitoring	no international monitoring network		develop nat'l and reg'l monitoring methodologies	Establish international monitoring network	[note: noting needed???		combine with Line #22
			Monitor HAB occurrences	develop regional? monitoring methodologies	[mechanism for] capacity building in HAB monitoring, prediction and management	[note: noting needed???	monitoring programmes only at national level and scattered among responsible agencies	conduct periodic monitoring [is this Technical???		improve capability in HAB monitoring, prediction and mitigation	conduct periodic monitoring [is this Technical???	[note: noting needed???		
Increased frequency of HABs	See Nitrogen enrichment and eutrophication	< 5 events on each coast (HAB includes high biomass algal bloom)	See Nitrogen enrichment and eutrophication	control nutrients loading; environment friendly exploitation in coastal waters	[See; are you saying mechanism to check?] Nitrogen enrichment and eutrophication	establishing laws to meet the target regulations on HAB management and mitigation	See Nitrogen enrichment and eutrophication [note: can Technical, Institutional and Legislative same???	See Nitrogen enrichment and eutrophication [note: can Technical, Institutional and Legislative same???	See Nitrogen enrichment and eutrophication [note: can Technical, Institutional and Legislative same???	See Nitrogen enrichment and eutrophication [note: can Technical, Institutional and Legislative same???	See Nitrogen enrichment and eutrophication [note: can Technical, Institutional and Legislative same???		actions for N enrichment should lower HAB events. Combine with above monitoring to ensure target is met.	

Biodiversity Management Action

Problems identified in CCA	*Problem Issue*	Regional target (2020)	General action	Ideal Management Action			Analysis of Planned & On-going Management Actions			Feasible Management Actions by 2020					Technical Feasibility	Remark	
				Technical	Institutional	Legislative	Technical	Institutional	Legislative	Technical	Feasibility	Institutional	Feasibility	Legislative			Feasibility
				Changes in abundance and diversity of endemic and endangered spp.	Maintain and improve current populations/distributions and genetic diversity of endangered and endemic spp. (Reduce human impact, reduce bycatch of endangered spp)	Regional Conservation Plan for endemic and endangered (E&E) species.	Act. 1) Establish regional conservation plan	Create regional mechanism for cooperation and national mechanism for coordination	Regional conservation plan and National laws	PRC: ? ROK: regular monitoring on marine organisms including some mammals	PRC: ? ROK: National mechanism to coordinate between governments and Institute for mammals	PRC: ? ROK: National law and enforcement	Act. 1) Establish regional conservation plan	M			Create regional mechanism for cooperation and national mechanism for coordination
Act.2) Establish regular regional monitoring of populations/distributions and genetic diversities of E&E spp.	Create regional mechanism for cooperation and national mechanism for coordination	Regional conservation plan and National laws	Some on birds, PRC: limited monitoring, ROK: regular monitoring on marine organisms including some mammals	PRC: SOA & scattered in other agencies, ROK: National mechanism to coordinate between government and Institute for mammals	PRC: National legislation exists ROK: National law and enforcement	Establishing regular regional monitoring of populations/distributions and genetic diversities of E&E spp.	M: once minimum	Create regional mechanism for cooperation and national mechanism for coordination	M	Regional conservation plan and National laws	M						
Act. 3) Periodically evaluating the effectiveness of the Regional Conservation Plan	Create regional mechanism for cooperation and national mechanism for coordination	Regional conservation plan and National laws	Some on birds, PRC: N/A, ROK: regular evaluating the wet land including mammals	PRC: SOA & scattered in other agencies, ROK: National mechanism to coordinate between government and Institute for wet land and mammals	PRC: National legislation exists ROK: National law and enforcement in some cases	Periodically evaluating the effectiveness of the Regional Conservation Plan	M: once minimum	Create regional mechanism for cooperation and national mechanism for coordination	M	Regional conservation plan and National laws	M						
Act. 4) Habitat restoration (physically, chemically, biologically)	Create national mechanisms to coordinate between government agencies and stakeholders	develop any new regulation and enforcement based on existing laws or newly developed standards	PRC: preliminary cases, ROK: preliminary cases (Research project for establishing algae ground)	PRC: N/A ROK: National mechanism to coordinate among governments, Institute and stakeholders for algae ground	PRC: legislations on marine environment issues ROK: legislations on marine ecosystem conservation and management issues	Habitat restoration (physically, chemically, biologically)	L	Create national mechanisms to coordinate between government agencies and stakeholders	L	develop any new regulation and enforcement based on existing laws or newly developed standards	L						
Act. 5) Establishment of new nature reserve and MPAs (based on what? It is based on institutional action etc))	Create national mechanisms to coordinate between government agencies and stakeholders	develop any new regulation and enforcement based on existing laws or newly developed standards	PRC: comprehensive plan for new MPAs, ROK: comprehensive plan for new MPAs	PRC: SOA & scattered in other agencies, ROK: National mechanism to coordinate among governments, Institute and stakeholders including NGOs	PRC: national laws, ROK: national laws	Establishment of new nature reserve and MPAs.	H	Create national mechanisms to coordinate between government agencies and stakeholders	H	develop any new regulation and enforcement based on existing laws or newly developed standards	H						
Act. 6) Encourage and strengthen public involvement in the action plans, all sectors, including NGOs	Establish regional and national mechanism for environmental awareness and educational programs	Develop any enforcement to enhance public involvement	PRC: very limited, ROK: some involvement of NGOs with limited extent	Environmental awareness and educational programs exist	ROK: Comprehensive guidelines	Encourage and strengthen public involvement in the action plans: all sectors, including NGOs	H	Establish regional and national mechanism for environmental awareness and educational programs	H	Develop any enforcement to enhance public involvement	H						
Habitat loss and degradation	Maintain current habitats according to standards and regulations of 2007 (According to Chinese and Korean functional zoning plans)	Regional Guidelines for Coastal Habitat Management	Act. 1) Integrated management for critical habitats	Create regional mechanism for cooperation	Agreement on regional coastal habitat guideline	PRC: marine function zoning, ROK: only in specific areas	limited national coordination	PRC: several comprehensive, ROK: several comprehensive	Integrated management for critical habitats	H	Create regional mechanism for cooperation	H	Agreement on regional coastal habitat guideline	H			
Act. 2) Strictly limiting of new coastal reclamations	Create national mechanisms to coordinate between government agencies	national laws on coastal habitat management	PRC: a national plan in consideration, ROK: a national plan in consideration (I though ROK had agreed not to reclaim any more land- several relevant laws to minimize, but no legislation prevent ...)	PRC: SOA	(ROK - Has legislation prevent new land reclamation?) PRC: "Sea Area use Administration Law" ROK: Law of coastal area management and several relevant laws	Strictly limiting of new coastal reclamations	H	Create national mechanisms to coordinate between government agencies	H	national laws on coastal habitat management	H						
Act. 3) Encourage and strengthen public involvement in the action plans, all sectors, including NGOs	Establish regional and national mechanisms for strengthen awareness and compliance by local government to the regional guideline	New policies to promote	PRC: very limited, ROK: some involvement of NGOs with limited extent	Environmental awareness and educational programs exist	ROK: Comprehensive guidelines	Encourage and strengthen public involvement in the action plans: all sectors, including NGOs	H	Establish regional and national mechanisms for strengthen awareness and compliance by local government to the regional guideline	H	New policies to promote	M						
Act. 4) Assess ecosystem services of well managed critical habitat, including economy losses and gains	Strengthen national mechanisms to coordinate between government agencies and stakeholders	Clear national and regional guidelines on assessment	PRC: preliminary cases, ROK: preliminary cases	Limited national coordination between agencies and stakeholders	ROK: Law on the prevention of marine pollution and several relevant laws	Assess ecosystem services of well managed critical habitat, including economy losses and gains	M	Strengthen national mechanisms to coordinate between government agencies and stakeholders	M	Clear national and regional guidelines on assessment	M						
Act. 5) Integrated management of different components to sustain social-economic development: demonstration project(s)	Establish mechanism to integrate and sharing of data among components, demonstration project(s)	Agreement on sharing data among components	PRC: plan in consideration, ROK: plan in consideration	ROK: Sharing data in limited components	ROK: Guidelines for sharing data	Integrated management of different components to sustain social-economic development: demonstration	H	Establish mechanism to integrate and sharing of data among components, demonstration project(s)	H	Agreement on sharing data among components	H						
Act. 1) Establishment of new nature reserves at national level	Create regional mechanism for cooperation	National law	PRC: comprehensive plan for new MPAs, ROK: comprehensive plan for new MPAs	PRC: SOA & scattered in other agencies ROK: National mechanism to coordinate among governments, Institute and stakeholders including NGOs	PRC: national laws, ROK: National laws	Establishment of new nature reserves [at the regional level?]	H	Create regional mechanism for cooperation	H	Agreement on regional plan for MPAs	H						
Act. 2) Better management of existing nature reserves (incl. capacity building sustained funding)	Create national mechanisms to coordinate between government agencies	national laws on nature reserves	PRC: UNDP Yanheng Project, ROK: UNDP Korea Wetland Project	ROK: National mechanism to coordinate among governments, Institute and stakeholders including NGOs in the limited area	PRC: national laws on nature reserves ROK: National laws	Better management of existing nature reserves	H	Create national mechanisms to coordinate between government agencies	H	national laws on MPAs	H						
Act. 3) Reduce pollution in and around critical habitats (Refer to Pollution Group)	Create mechanism for transboundary MPAs management	Refer to Pollution Group	Refer to Pollution Group	Refer to Pollution Group	Refer to Pollution Group	Reduce pollution in and around critical habitats (Refer to Pollution Group)	H	Create mechanism for transboundary MPAs management	L	Internationally accepted regulation(s) on transboundary MPAs [note: are you suggesting to introduce globally accepted regulations???	L						
Act. 4) Encourage and strengthen public involvement in the action plans, all sectors, including NGOs	Create mechanism on sustainable financing for MPAs	New policies to promote	PRC: very limited, ROK: involvement of NGOs with limited extent	Environmental awareness and educational programs exist	ROK: Comprehensive guidelines	Encourage and strengthen public involvement in the action plans: all sectors, including NGOs	H	Create mechanism on sustainable financing for MPAs	H	[don't need anything?]							
Act. 5) Identify priority habitats for MPAs	Establish regional and national co-operative mechanism to share information & data	Clear regional guidelines on identification	PRC: N/A ROK: Comprehensive plan for identification	PRC: N/A ROK: National mechanism to coordinate among governments, Institute and stakeholders for algae ground	PRC: N/A ROK: Comprehensive guidelines	Identify priority habitats for MPAs	H	Establish regional co-operative mechanism to share information & data	H	Clear regional guidelines on identification	H						
Act. 6) Assess effectiveness of MPAs on habitats and populations	Establish regional and national co-operative mechanism to share information & data	Clear regional guidelines on assessment	PRC: N/A ROK: N/A	PRC: N/A ROK: N/A	PRC: N/A ROK: N/A	Assess effectiveness of MPAs on habitats and populations	M	Establish regional co-operative mechanism to share information & data	M	Clear regional guidelines on assessment	M						
Reduce risk from invasive spp.	Ballast water control	Control and monitoring of ballast water treatment and discharge	Regional mechanism for cooperation and national mechanism for coordination	International/regional agreement and national legislations	PRC: yes, ROK: Yes	PRC: yes, ROK: Yes	International/regional agreement and national legislations	M	Regional mechanism for cooperation and national mechanism for coordination	H							
New spp. introduction control	Precautionary introduction and strict control of alien spp.	Mechanism to conduct risk assessment	Strengthen legislation on invasive spp. Issues	PRC: yes, ROK: Yes	PRC: in consideration, ROK: established	legislation on species introduction & quarantine	H	Mechanism to conduct risk assessment	H	Legislation on invasive spp. Controls	H						

