

## Twelfth Five-Year Plan for National Fisheries Development (2011-2015)

The 12th Five-Year Plan period is a crucial time for China to build a well-off society in an all-round way, a critical stage to deepen the reform and opening up policy and to quicken the pace of transforming the modes of economic development, and a strategic opportunity to accelerate the development of modern fisheries. For the purpose of clarifying the development ideas, strategic objectives, and main tasks of fisheries development and ensuring the sound and fast growth of the fishery economy, in accordance with the Outline of the *12th Five-Year Plan for National Economic and Social Development* and the *12th Five-Year Plan for the Development of China's Agriculture and Economy in Rural Areas*, the *12th Five-Year Plan for National Fisheries Development* is formulated.

### I. Major Achievements of Fisheries Development Made in the 11th Five-Year Plan Period

In the period of the 11th Five-Year Plan, the Communist Party of China Central Committee and the State Council have placed the “Three Rurals” on the top of the agenda, continuously reinforced the policies of strengthening agriculture and benefiting farmers, and increased investment into the “Three Rurals”, which created favorable conditions for the steady development of China's fishery economy. Over the past five years, China's fishery industry adhered to the guidance of the Scientific Outlook of Development so that the construction of modern fishery has been advanced, and completed the objectives of “Two Ensures and Two Promotes.” Fisheries make contributions in many aspects, such as guaranteeing food safety, increasing the income of farmers, promoting eco-civilization, protecting maritime rights and interests, and building a new socialist countryside, and plays an active part in the practice of exploring the paths suitable for China to develop modernized agriculture.

**(1) The steady growth of the fishery economy plays a role in maintaining the momentum of the agricultural and rural economy.** Over the past five years, the fishery industry overcame many unfavorable conditions, such as severe natural disasters, shocks of the international financial crisis, and capricious and complicated situations for economic development in China, kept a steady growth, and has become the pivotal industry and a money-making industry in the development of the agricultural and rural economy. In 2010, aquatic products amounted to 53,730,000 tons and increased at the average rate of 4.1% per year. The total output of the fishery economy reached 1290 billion yuan and the fishing industry accounted for 675.18 billion yuan; average annual increase rates were 11.0% and 10.6% respectively. The export value of aquatic products reached 13.8 billion dollars, ranking first in domestic bulk agri-products for 11 years in succession. The levels of quality and safety have been steadily improved. Qualified products in random inspections accounted for more than 96% in a row over the past five years, aquatic products were sufficiently supplied to the markets, prices increased at an average rate of 4.9%, and aquatic products diversified the “shopping basket” of urban and rural residents and played a key role in stabilizing the prices of agricultural products. The net per capita income of fishermen was 8,963 yuan, increasing at a rate of 9.8% per year.

**(2) The industrial structure of fisheries has been further optimized.** The development speed of fisheries and industrial competitiveness has been remarkably improved. At the end of “11th Five-Year Plan” period, the ratio of fish-farming to fish-catching in the total output of aquatic products has risen from 67:33 to 71:29; secondary and tertiary industries of fisheries accounted for 48% of the total output; processing of aquatic products steadily developed, and scales of enterprises have grown larger. Processing capacity improved by 30%. Paces of transforming the development modes of fisheries have been quickened. The geographical layout of aquaculture has been formed, represented by “Two Zones and One Area” [two favorable export zones of agriculture, one along the Yellow River and the Bohai Sea and the other along the southeast China, and the advantageous area of fish-farming along the middle and lower reaches of the Yangtze River]. Healthy fish-farming has been boosted overall. More than 10 million mu [1 mu = 0.0667 hectare] of fish-farming ponds have been transformed into standardized ones, and over 1,700 ponds have been established as demonstration ponds for standardized healthy fish-farming. Intensive fish-farming modes have developed by leaps and bounds, such as industrialized modes of fish-farming by recirculating water and stormproof modes of fish-farming by net cages in deep waters. The domestic fish-catching industry has developed stably and the

operation patterns of fish-catching vessels have been improved. The fishery structures of distant fishing continued to be optimized. As for oceanic fishery in high seas, the fishery proportions have increased from 46% to 58%, projects of developing biological resources in the Antarctic have been successfully implemented, and the boom of leisure fishery has become a new bright spot to increase the income of fishermen.

**(3) The resource conservation industry has entered a new stage, and historic breakthroughs have been made by means of proliferating fish and releasing cultured fish into waters.** In 2006, the State Council promulgated the *China Aquatic Biological Resources Conservation Action Plan* and conservation of aquatic biological resources has taken priority in the construction of national ecological security. Central and local departments of finance sharply increased the investment for proliferating fish and releasing cultured fish. The volume of national investment totaled 2.1 billion yuan, and 109 billion young fish were released into waters. The practice of proliferation and release has been developed from a regional scale to a nationwide one, and from small scales of protection to large scales of conservation, which created a government-directed, walks-of-life-supported, and general-public-involved atmosphere. Up to now, 220 national reserves of aquatic germplasm resources have been established and the national natural reserves of aquatic biological resources have reached 16. Similarly, the construction of artificial fish reefs and marine ranches developed at a rapid speed. The sound monitoring system of the fishery eco-environment has been progressively refined. Ecological compensation systems for fishery engineering have been initiated, and the volume of compensation funds added up to 3.7 billion yuan. Actions have been taken to reinforce and perfect the regulations of summer fishing moratorium in seas and the regulations of close season in the Yangtze River. The regulations of close season in the Pearl River were verified and ratified by the State Council; the State Council approved targets for marine fish-catching vessels from the year of 2003 to 2010 have been basically achieved.

**(4) Policies of strengthening fisheries and benefiting fishery producers have been gradually reinforced.** Industrial bases and the capability of protecting livelihoods have been consistently enhanced. Over the past five years, financial departments at each administrative level have increased investments into the fishery industry. The investment of central finance amounted to 37 billion yuan, increasing by nearly seven times, compared with that in the period of 10th Five-Year Plan. The infrastructure of fisheries have been remarkably improved. Around 700 million yuan was allotted to initiate the construction of scientific research projects in the agricultural industry and the development of modern agricultural technology. Scientific and technological breakthroughs have been made in innovation in the major fields of fisheries, and there are marked effects in expanding the application range of key technologies, 22 national awards have been won in total, and 382 standard items have been set by the state and industrial sectors. Technologies of aquaculture have spread to the grassroots level and the capabilities of public services have been enhanced. Promulgation of the *Registration Measures of Issuing Permits to Fish Farming in Waters and Tidal Flats* has on an institutional level reinforced the protection of the rights of fishery producers. Pilot policies of insurances has begun in the field of fisheries. During the five years, 3.23 million fishermen and 250 thousand fishing vessels purchased insurance. Measures have been taken to provide minimum allowances for poor fishermen and to assist fishermen who lived in “vessel-houses” to settle themselves on land. Preferential policies have been effectively carried out, diesel subsidies were allocated to fishing vessels, and fishermen at coastal areas were encouraged to try their hands at other industries or jobs.

**(5) Growth of the capabilities of comprehensive administration highlights the functions and roles of defending the marine rights and protecting the fishing industry.** The functions of fishery authorities have been extended and strengthened, and the capabilities of administration, direction, and emergency management have been gradually improved. Efforts were made to put forward plans for fishing operations in waters and tidal flats and the release of fish farming permits. Laws were enforced to inspect the quality and safety of aquatic products and rigorously protect the interests of fishery farmers and the room for the development of fisheries. The informational management has been conducted to intensify the statistic work of fishing operations, create systems to collect information on fishery and establish and widely utilize the system for administrating and commanding

China's fisheries and the secure communication network for the national marine fishing. The State Council issued the *Notice of Reinforcing the Safety in Fish Production*, and under this guidance of "secure fishery," fish production has been advanced and has successfully overcome many natural disasters such as earthquakes, freezing rain and snow, and typhoons, which demonstrated the increased capabilities of disaster prevention and mitigation; 4,683 fishing vessels and 22,232 fishermen in distress were rescued; an economic loss worth nearly 1.39 billion yuan was saved, and there was a trend of a "double decline" in the accident incidents of fishing vessels and in the death toll of fishermen. The equipment levels and administrative capacities of fishery law enforcement teams became increasingly sophisticated, and the administration mechanism concerning foreign affairs was improved with the cooperation with departments involved in diplomatic affairs and border defense. China's Fishery Administration plays an irreplaceable role in protecting national sovereignty, marine rights and interests, and lives and property of fishery farmers.

#### Targets Met in the 11th Five-Year Plan Period

Targets	2005	11th Five-Year Plan Objectives	2010	Completion Rate (%)
Total output of fishery (billion yuan)	4181	5700	6751.8	118.5
Added value of fishery (billion yuan)	221.53	3200	3790.09	118.4
Total output of aquatic products (million tons)	4420	5200	5373	103.3
Total output of agriculture (million tons)	2944	3950	3828.84	96.9
Export volume of aquatic products (million tons)	2.57	400	333.88	83.5
Export value of aquatic products (billion USD)	7.88	120	138.28	115.2
Processing volume of aquatic products (million tons)	11.95	1700	1633.25	96.1
Value of processing aquatic products (billion yuan)	132.1	2200	2358.60	107.2
Annual net income (yuan/person) of fishery farmers	5869	7200	8963	124.5
Marine motor vessels for fish-catching under the administration of "double controls" (thousands)	23.1	20.8	20.1	130.4
Power of marine motor vessels for fish-catching under the administration of "double controls" (million kilowatts)	1390	12.96	1237	162.8

## II. Situation Faced in Fishery Development in the 12th Five-Year Plan Period

### (1) Favorable Conditions

**Agriculture's foundational role in the economy is further manifested.** At present, China has entered the stage of perfecting the long-term mechanism of "industry promotes agriculture, city leads countryside." It is also the critical period of quickening the pace to transform the development modes of traditional agriculture and taking the route suitable for China to develop modern agriculture with Chinese characteristics. The central government has placed emphasis on the "Three Rurals" and put forward that agricultural modernization in rural areas are to be advanced in the course of industrialization and urbanization within the period of the 12th Five-Year Plan. The strategic goals of "industrialization, urbanization and agricultural modernization" will reinforce and strengthen the

position of agriculture as the foundation of the economy, attract more support in the settlement of the issues related to agriculture, farmers and rural areas, build sound mechanisms and powerful safeguard systems, and create favorable conditions to accelerate the development of modern fisheries.

**Functions of stimulating domestic demand is more marked.** By the end of the 12th Five-Year Plan period, China's population will reach 1.39 billion and the rate of urbanization will increase to 51.5%. The population in urban areas will surpass that in rural areas. People's prosperity will be generally better, their quality of life will be remarkably improved, and the structure of food consumption will be optimized. As the major source of high quality animal protein, aquatic products will be in greater consumption demand in China. At the same time, the pattern of international markets of aquatic products being dependent on the supplies of aquaculture products will be reinforced, which still represents much potential for China to export aquatic products. The increasing demands at home and abroad for aquatic products will become the impetus for the development of modern fisheries.

**Space expanding capacities are more favorable.** The fishery industry has the characteristic of "not competing for grains against human beings, not competing for lands against grains," high transformation efficiency of fodder, and considerable comparative efficiency. At present, there are more than 3 million square kilometers of sea area, and over 1 billion mu of saline-alkali land remaining untapped though proved to be suitable for fishing. The foundation for the development of emerging industries such as proliferation and leisure fishery has been properly laid. Available land resources are increasingly limited, and under situation, the "exploration both in lands and in waters" pattern is imperative for building the system of food security in China and the development of modern fisheries still has a large space to expand.

**Industry development has more solid foundations.** After years of development, China has become the leading country in the fishery industry, trade of aquatic products, and distant fishing, and this leading position has become more solid with relatively large industrial scales and favorable foundations. In China, supplies of aquatic products are sufficient, prices are stable, and incomes of fishermen are continuously increasing, and substantial experience in fishery production, management and technology has been gained. Industrial accumulation has laid solid foundations for quickening the pace to transform the development mode and furthering modern fishery.

**New opportunities becoming apparent.** New concepts of the low carbon economy, green economy and blue agriculture are recommended and practiced, which will deeply affect the industrial structure and development mode, and the biological carbon credits functions and environmental purification functions of fishery production will further stand out. Meanwhile, the development of the ocean is economy more emphasized during the 12th Five-Year Plan period, as the quickened construction of modern fishery is becoming an important part of modern industrial systems development.

## (2) Constraints

**Rigid constraints from resource and environment are more marked.** Water-related engineering greatly occupies fishery waters and beaches, and damages the habitat of aquatic organisms, shrinking the space of traditional fisheries. Excessive fishing and industrial pollution, as well as domestic sewage, severely sabotage the ecological safety and biodiversity of fishery waters. Depletion of fishery resources and accelerated exacerbation of the water environment reinforce the constraints of water resource shortages, thus encroaching upon the resource and environment base supporting industrial development, and efforts to speed up modern fishery development amidst rigid resource and environmental constraints are more pronounced.

**Mechanisms offering support and guarantees will become even more overstretched.** Compared with demands for more vigorous endeavors to promote modern fishery building, current fishery laws and regulations and management systems still lag behind; infrastructure such as fishery administration, fishery ports, standardized cultivation ponds, and new types of fishing boats remains weak, and disaster prevention and relief capability is not strong; public services including the

quarantine of aquatic animals, surveillance of aquatic product quality and security, and promotion of aquatic technologies remain unsatisfactory, and the social services system is incomplete; scientific and technological support is not solid and the transformation of research achievements is relatively slow due to the poor linkage between science and technology and industry. It is of great urgency to expedite the building of the capacities of support and guarantees for modern fisheries.

**Need for industrial upgrade and expansion is more pressing.** Generally speaking, China's degree of large-scale, intensive, and organized production of fishery as well as the quality of practitioners is still rather lagging behind, which restricts the optimization and upgrading of traditional industries such as cultivation, fishing, and manufacturing, and brings enormous challenges to the regulation of aquatic product quality and safety, fishery ecological security, and safe fishery production. At the same time, hindered by policy, technologies, and inputs, the potential of emerging industries such as proliferation fishery and leisure fishery have not been fully unleashed, and industrial scale and contribution are still limited. It is an arduous task to transform and improve traditional industries and accelerate the development of emerging industries.

**Protection of the rights and benefits of fishermen will become more arduous.** Since the systems protecting fishery rights have not been effectively established, the safeguards for the rights and benefits of fishermen remain vulnerable. The protection of the rights of fishermen to lawfully use waters and beaches for cultivation and fishing is insufficient, construction of damage compensation and compensation for appropriation system lags far behind, and "deprivation of ocean and water area" from fishermen as a result of massive land reclamation and acquisition of aquaculture waters becomes more worrying. Against the backdrop of inadequate social security for the livelihood of fishermen and absent long-term mechanism to increase incomes of fishermen, pressures to promote sustainable and rapid increase of fisherman's incomes are snowballing.

**International and neighboring fishery circumstances are more complex.** Along with the more rapid decline of worldwide fishery resources and continually higher degree of globalization, fishery development in China faces ever more complicated international and neighboring circumstances. More intense vying for resources and conflict of interests in international fisheries, and execution of new systems such as crackdowns on illegal fishing via market measures and stricter management system of fishery quota over distant seas, pose ever higher requirements for production, operations, and management of fisheries in China. At the same time, neighboring foreign-related fishery disputes will exist for a long time within the near future, and the task to maintain good fishery production practices at neighboring waters becomes more arduous.

All in all, fishery development during the "12th Five-Year Plan" shall **prioritize security** with unswerving efforts to **safeguard security, adjust structure, transform methods, advance development, and increase incomes** with more attention channeled to the security of industrial development, aquatic product quality and safety and ecological security, resource saving and environmental friendliness, livelihoods of fishermen, technological innovation and application promotion, and expansion of fishery function and space so as to enhance international competitiveness and achieve modern fishery development.

### **III. Guiding Concepts, Basic Principles and Goals of Fishery Development during the "12th Five-Year Plan"**

#### **(1) Guiding concepts**

Under the guidance of Deng Xiaoping Theory and the important thought of the "Three Represents", [we shall] deepen the implementation of the Scientific Outlook on Development and stick to the road of agricultural modernization with Chinese characteristics. In line with the requirements of synchronous promotion of agricultural modernization during the in-depth industrialization and urbanization, take the accelerated building of modern fishery as the major direction, make expedited transformation of fishery development methods as the main line, and define as main focuses the

consolidation of aquatic product quality and safety, fishery ecological security, and safe production. Continuously ensure the effective supply of aquatic products and the rapid and sustained increase of fishermen incomes as priorities, while taking the deepening of reform and opening up and boosting of scientific and technological innovation as the basic driving force. Unremittingly improve policies, systems, and mechanisms related to modern fishery development. Make more investments to strengthen comprehensive fishery production capacities, anti-risk capacities, market competitiveness, and sustainability to coordinate the balanced development of various industries and regions. Work harder to build a modern fishery industrial system, supporting and security system for better and faster development of fishery economy, therefore laying solid foundations for the comprehensive realization of fishery modernization.

## (2) Basic principles

----**Pay equal attention to guaranteeing supply and improving quality.** It is the basic task of fishery development to guarantee aquatic product supply to meet increasing consumption demands of the aquatic products by urban and rural citizens. Aquatic product quality and safety concern the health of urban and rural citizens as well as the successful development of the industry. Therefore, on the basis of ensuring effective supplies, give product safety more prominence and strive to transform fishery production from mainly focusing on quantity to focusing on quantity and quality equally.

----**Attach equal emphasis on production development and ecological conservation.** Since sound ecological environment provides the conditions and bases for the sustainable development of fishery, place more attention on ecological conservation, and in the meantime develop production to coordinate the advancement of production and ecological conservation. Actively explore and execute the development concept of “blue agriculture,” reasonably explore and exploit fishery resources, promote resource-saving and environmental-friendly production methods, and enhance the comprehensive production capacity of fishery. Proactively harness the ecological service functions of fisheries and scale up the cause of aquatic biological resource conservation to promote national ecological civilization construction.

----**Place development of fisheries and fishermen on equal footing.** High-quality fishermen provide strong safeguards for healthy industrial development. Not only speed up modern fishery development, but also pay more attention to the concept of “Taking People as the Foremost” to constantly enhance the protection of the legal rights and benefits of fishermen, accelerate formulation of long-term mechanism to increase incomes of fishermen, and vigorously promote the setup of fishery economic cooperation organizations. Place more efforts on the cultivation of leaders and practical talents to develop modern fisherman teams that are educated, skilled, and excellent in management and operation, and offer talents to support modern fishery construction.

----**Coordinate structural optimization and foundation building.** Industrial optimization and upgrade are critical to the modern fishery construction which shall be built on a solid foundation. Make efforts to further adjust the industrial structure, bolster the standardization, industrialization and information application level, and broaden the multi-functionality of fishery to stimulate industrial optimization and upgrading. For weak links in fishery development, channel endeavors to consolidate infrastructure and equipment building to enhance the support of technology, improve fishery public service systems, and promote the overall quality of the fishery industry.

----**Coordinate domestic development and overseas expansion.** Reasonably develop and utilize domestic fishery resources, actively guide domestic market consumption, expand domestic demand for aquatic products, and reinforce the intrinsic forces for fishery economic growth. At the same time, accelerate the pace of “going global” of fisheries and press ahead the development of global resources and markets. Bolster our capability to use “domestic and global resources as well as domestic and global markets” and lift the international competitiveness of our fishery industry to expedite the transformation from a large fishery country to a strong fishery country.

---**Coordinate industrial progress and overall development.** The building of modern fishery involves various fields including economic development, ecological conservation, food safety, social stability, and so on. Under the macro background of fishery internationalization, fishery development is also closely related with the safeguarding of national ocean rights and benefits and stable neighboring diplomacy. Place modern fishery construction in the overall picture of national agricultural modernization, ecological civilization construction and national oceanic strategy, and work out plans and deployment with strategic thinking and international vision by taking into account the whole picture.

### (3) Development goals

By the end of the “12th Five-Year Plan”, the fishery economy will sustain steady and healthy development. Aquatic product supplies are ample and aquatic product quality and safety and fishery safe production are improved based on relatively high levels. Manufacturing areas are more reasonably distributed and industrial structure is further optimized. The cause of aquatic biological resource conservation is deepened and advanced comprehensively. Incomes of fishermen maintain continuous and rapidly increasing. Measures to develop the fishery industry and benefit fishermen are consolidated. The industry system and support and security system of modern fishery are built preliminarily. New patterns of modern fishery development are realized featuring production growth, product safety, increased incomes of fishermen, ecological civilization, security and harmony. Some regions with developed fisheries will achieve fishery modernization. Specific goals are:

---**Capacity for safe production of fishery is further upgraded.** Obvious improvement of fishery disaster prevention and relief capability as well as security facilities and equipment associated with fishing boat communication, collision prevention, and navigation markings. More than 200 fishing ports are classified as or over Class I, accommodating 70% fishing boats to take shelter from the wind or stay during the fishing moratorium. Casualties of accidents related to fishing boat production to be controlled below 300.

---**Effective and safe supply of aquatic products is further enhanced.** The overall yield of aquatic products to exceed 60 million tons, among which cultivation products account for over 75%. Aquaculture area to be steady over 100 million mu, and 20 million-mu ponds with moderate and low yields to undergo standardized transformation. Aquatic product quality and safety levels to be elevated continuously, and conformity rates of production areas to be maintained at over 98% by random examinations.

---**Fishery economy and industrial structure is further refined.** The gross output of the fishery economy is to reach RMB 2100 billion yuan, and the added value is to reach RMB 990 billion yuan. The output of fishery is to reach RMB 1000 billion yuan, and the added value is to reach RMB 64 billion yuan. The output of secondary and tertiary industry of fishery is to make up 53%. The processing rate of aquatic products is to be 40%. Significant progress is attained for emerging industries such as proliferation fishery and leisure fishery.

---**Security for the livelihood of fishermen is further strengthened.** The net income per fisherman increases at an annual rate of over 8%, which matches the pace of the income increase of urban citizens. A cumulative 20 million fishermen are organized for training, and the quality of fishermen is improved. Policies and systems protecting fishery rights are improved, and policies benefiting the fishermen are more favorable. About 1.8 million fishermen are entitled to fishery insurance subsidies funded by central finance each year. Efforts to settle the fishermen living in “vessel-houses” on land have reaped notable progress.

---**Aquatic biological resource conservation is further promoted.** The total number and power of motor fishing vessels for oceanic fishing are controlled at the level at the end of “11th Five-Year” period. A cumulative of 150 billion various fingerlings are liberated and over 5 million hectares of oceanic farms are constructed, with maritime desertification further reined in. Build 23 national-

level aquatic natural reserves and 300 national-level aquatic genetic resource conservation areas.

---**Scientific and technological support is further strengthened.** Scientific and technologic contribution rate for fishery attains 58%, both aquatic stock and good breeding coverage reaches 60%, and aquatic genetic modification rate amounts to 35%. The system for aquatic technology promotion becomes more sound and public service capacity is bolstered. Fishery energy saving and emissions reduction have made new strides, and energy utilization and water resource utilization levels are improved to some extent.

---**Fishery administration and law enforcement capabilities are further improved.** Prefecture-level plans for waters and beaches are enacted and aquaculture licenses are issued, the rates of which approach 100%. See an increasing involvement of fishery administrative and law enforcement institutions reform in a steady and solid way according to the principle of function-based reform of public institutions. Fishery administration becomes more modernized and information-based, and the capacity to safeguard rights and protect fisheries is bolstered significantly.

---**Expand export-oriented fisheries are further expanded.** The “go global” strategy of fishery is advanced steadily. Exports of aquatic products reach \$18 billion and the quality of exported products is lifted. International recognition and influence of Chinese brands are elevated significantly. Overseas operation capacities of enterprises are continually increasing. Offshore fishery is under steady expansion, with output amounting to 1.3 million tons.

**Main Indicators for Fishery Development during the “12th Five-Year Plan”**

Category	Indicator	2010	2015	Average annual increase (%)	Properties
Fishery safe production	Number of fishing ports classified as or over Class I	111	200	12.5	<b>Expected</b>
	Percentage of fishing boats that seek adjacent shelter and stay in fishing moratoriums (%)	33	70	[37]	<b>Expected</b>
	Casualty of accidents related to fishery boat production (person)	319	300	-1.2	<b>Binding</b>
Fishery economic structure	Total output of fishery economy (RMB 1000 billion yuan)	1.29	2.10	10.2	<b>Expected</b>
	Added value of fishery economy (RMB 100 million yuan)	5904	9900	10.9	<b>Expected</b>
	Output of fishery (RMB 1000 billion yuan)	0.67	1	8.3	<b>Expected</b>
	Added value of fishery (RMB 100 million yuan)	0.38	0.64	11.0	<b>Expected</b>
	Percentage of output of fishery secondary and tertiary industry (%)	47	53	[6]	<b>Expected</b>
	Processing rate of aquatic products (%)	35	40	[5]	<b>Expected</b>
Aquatic product supply capacity	Aquatic product yield (10 thousand tons)	5373	≥ 6000	≥ 2.2	<b>Expected</b>
	Aquaculture product percentage (%)	71	75	[4]	<b>Expected</b>



	Area of transformation of ponds with medium and low yields (10 thousand mu)	1000	2000	14.9	<b>Expected</b>
	Conformity rate of sampling test of place of origin (%)	97.9	> 98	[0.1]	<b>Expected</b>
Livelihood security of fishermen	Net income per fisherman (RMB)	8963	13170	8	<b>Expected</b>
	Number of fishermen trained (10 thousand)	300	[2000]	-	<b>Expected</b>
	Number of fishermen entitled to fishery insurance subsidy funded by central finance (10 thousand)	2.1	180	143.6	<b>Expected</b>
Aquatic biological resource preservation	Number of fingerlings liberated for proliferation (100 million)	289.4	[1500]	-	<b>Expected</b>
	Area of maritime farms (10 thousand hectares)	236	500	16.2	<b>Expected</b>
	Number of national aquatic natural reserves	16	23	7.5	<b>Expected</b>
	Number of national genetic resource preservation areas	220	300	6.4	<b>Expected</b>
Scientific and technological support	Scientific and technological contribution rate (%)	55	58	[3]	<b>Expected</b>
	Original breeding coverage rate (%)	55	60	[5]	<b>Expected</b>
	Genetic modification rate (%)	25	35	[10]	<b>Expected</b>
Fishery administration	Rate of promulgation of prefecture-level plans for waters and beaches (%)	39	100	[61]	<b>Expected</b>
	Rate of issuance of aquaculture licenses (%)	68	100	[32]	<b>Expected</b>
Export-oriented fishery	Export volume of aquatic products (100 million dollars)	138.28	180	5.4	<b>Expected</b>
	Yield of distant sea fishery (10 thousand tons)	110	130	3.4	<b>Expected</b>
	Number of distant sea fishing boats	1991	2300	2.9	<b>Expected</b>

[ ] Represents the accumulated number for the period of five years

#### IV. Priority Tasks

Give priority to security and concentrate on cultivation. While enhancing traditional industry, strive to expand emerging industries such as proliferation fishery and leisure fishery. Commit to building the “five industrial systems” encompassing aquaculture, proliferation fishery, fishing industry, processing industry, and leisure fishery, and to constructing the “five supporting systems” covering facility and equipment, scientific and technological innovation, resource and environment protection, fishery security, and fishery administration and management.

## **(1) Vigorously develop the ecological-friendly aquaculture industry**

---**Accelerate the implementation of standardized healthy aquaculture.** Speed up aquaculture standardization and promote applications of healthy aquaculture standards and models. Develop the modern fingerling industry that supports aquaculture, boosts breeding of aquatic new varieties, and increases aquatic stock and improved variety coverage and genetic modification rate. Continuously adjust and optimize variety structure and regional distribution. Actively promote the use of safe and effective synthetic formula feeds. Steer aquaculture towards intensive, standardized, and sustainable development based on good varieties, facilities, and information technologies.

---**Adjust and exploit cultivation spaces in a scientific and reasonable way.** Make efforts to explore and craft measures for the preservation of cultivation waters, and facilitate the formulation of compensation system for the appropriation of fishery waters and beaches. Reasonably control and scientifically plan the cultivation capacities of large- and medium-sized waters, including coastal waters, rivers, lakes, and reservoirs. Sustain pond cultivation areas and further unleash the potential of pond cultivation. Vigorously scale up marine offshore cultivation, such as deep-water large cages and pop up industrial circulating water cultivation. Intensify efforts to develop resources favorable to fishing, such as low-lying saline and alkaline lands and croplands.

---**Strengthen disease prevention and safety surveillance.** Accelerate the building of aquatic animal disease prevention and control systems, reinforce essential aquatic animal disease monitoring, actively advance quarantine at the places of origin of aquatic fingerlings, explore the construction of aquaculture farms free of prescribed diseases, carry out the fishery veterinarian registration system in the countryside, and carry on the building of fishery practicing veterinarian and official veterinarian teams. Adamantly remedy aquatic product quality and safety and build long-term mechanisms, reinforce monitoring and random examination, intensify coordinated inspection and crackdowns, propel aquatic product quality and safety traceable systems, country of origin exit and market access systems, and launch aquatic product quality and safety risk evaluations.

## **(2) Proactively develop environmentally friendly proliferation of the fishery industry**

---**Actively carry out the release of fisheries growth.** Execute the *National Overall Plan for Proliferation and Release of Aquatic Organisms (2011- 2015)* and, according to the ecological environment, resource conditions, and preservation requirements of waters, reasonably define the functions of proliferation and release and scientifically identify the varieties and scale to be proliferated and released. Steadily carry out the proliferation of lake and reservoir filter feeders and herbivorous and omnivorous fish, and improve the ecological environment of waters and drive up production capacity of the waters. Launch the release of rare and valuable aquatic organisms. Improve technique standards for proliferation and release, enhance the quality of fingerlings for proliferation and release, and strengthen release monitoring and evaluation.

---**Promote maritime farm construction.** Invest solid efforts in fundamental work such as planning and design, site and type selection, and effects evaluation of maritime farms and artificial reefs, and establish and refine maritime farm construction and management and protection systems. Build various types of artificial reefs, such as reefs for breeding, ecological reefs, resource protection reefs, and recreational fishing leisure reefs. Promote the construction of maritime farms closely with resource preservation measures, such as proliferation and release to restore seafloor vegetation and improve marine ecological environment. Increase financial inputs at various levels for maritime farm construction, actively attract social funds to maritime farm construction, and give impetus to the development of distinctive proliferation fishery.

## **(3) Develop a sustainable fishing industry in a coordinated way**

---**Strictly control the intensity of the fishing industry.** Continue to exercise the “double-control” system on both the number and power of ocean fishing boats, accelerate the formulation of

inland water fishing boat control systems, refine fishing boat management and fishing permit systems, and practically bolster the management of fishing boat manufacturing and standardize fishing boat examination, registration, and circulation management. Forge ahead the standardization of fishing boats, fishing machines, and fishing gear, and reasonably adjust the fishing structure and scale of fishing boats and fishing gear. Speed up the formulation of the Catalogue of Permitted Fishing Gear, establish and improve fishing tool standards and minimal catchable standards of important economic fish, and lay down sizes of smallest meshes and stipulate measures to limit the use of various fishing gear. Continue to practice policies concerning the switching of the coastal fishermen to other industries and businesses. Explore new resource management systems and measures such as fishing tools, method of access, and fishery resource grid management.

---**Support and consolidate distant sea fisheries.** Deepen multilateral and bilateral cooperation and exchanges of fishery, actively participate in international institutional systems for fishery resource management, and expand development space of distant sea fishery. Reinforce and improve distant water fishery, explore new cooperation methods to develop oceanic fishery at open seas and intensify the fishing, development, and utilization of new resource and new fishing farms. Proactively build overseas bases, bolster processing, trade and service capabilities, and extend distant sea fishery industrial chains. Upgrade deep sea fishery equipment and enterprise management and nurture an array of distant sea fishery enterprises and modern distant sea fishery fleets with international competitiveness.

#### **(4) Vigorously develop advanced aquatic product processing and circulation industries**

---**Promote the optimization and upgrade of processing.** Through resource endowment, location advantages, and centered around indigenous innovation and brand building, strive to foster a batch of leading enterprises for aquatic product processing that have advanced equipment, first-rate management, and a strong driving force, and actively facilitate the construction of aquatic product processing parks to stimulate the clustered development of the aquatic processing industry. Actively develop fine processing and achieve high-value exploitation and utilization of low-value aquatic products and side products to increase the added value of products. Encourage the extension of processing to marine pharmaceuticals, functional food, and the marine chemical industry.

---**Advance the building of a modern logistics system.** Speed up the construction of the aquatic product whole-sale market and cold chain system and realize effective linkage of markets and cold chain logistics between place of origin and place of sales. Intensify information services for aquatic product market, proactively build a large aquatic online trade platform to guide development of aquatic product e-commerce, driving marketing to transform from a single traditional modality to diversified modern marketing modalities. Accelerate the building of a place of origin exit and market access system.

---**Expand foreign and domestic market space.** Fully capitalize on the “domestic and global resources as well as domestic and global markets”, strengthen enterprise brand building and consciousness of market exploitation, expand market promotion, broaden brand promotion, and vigorously develop consumption-guided processing industry and endeavor to lead and drive up domestic aquatic product consumption. Actively participate in international trade negotiations and formulation of international trade conventions, pursue initiatives in aquatic product international trade, enhance capabilities against various trade barriers, and maintain the stable and coordinated development of international aquatic products trade.

#### **(5) Encourage culturally diversified leisure fisheries**

---**Enrich leisure fishery development modalities.** Revolve around urban-rural integration and modern rural construction and make use of fishery facilities such as cultivation bases, fishery ports, and maritime farms as well as fishery activities such as proliferation and release. Energetically develop diversified and exquisite modern leisure fisheries characterized by culture and entertainment,

metropolitan touring, competitive sports, sightseeing, exhibition, and education. Unremittingly explore, inherit, promote, and innovate the sightseeing, cuisine, and folk customs culture associated with fisheries in the form of ornamental fish competitions, fishing competitions, fishery cuisine festivals, fish release festivals, fishing festivals, and dissemination of science and fine arts and photography of fishery.

---**Enlarge the industrial scale of leisure fisheries.** According to the requirements concerning adaption to local conditions, reasonable planning, formation of characteristics and model-driven development, and being market-oriented, bolster the integration of leisure fishery resources, gear up the building of renowned leisure fishery brands, and forge modern leisure fishery clusters featuring standardized production, intensive services, and diverse functions. Enlarge the scale of the ornamental fish industry by accelerating exhibition and trade market construction, increasing investments and support for charity facilities of leisure fishery, enhancing the management and support of leisure fishery cooperative organizations and industrial associations as well as strengthening the leisure fishery technological service system.

## **(6) Speed up the building of the fishery facility and equipment system**

---**Reinforce the building of cultivation facilities and equipment.** Strengthen building facilities and equipment of aquatic stock and improved variety breeding, aquatic animal quarantine and aquatic product quality and safety surveillance. Expedite the standardized modification of cultivation ponds and intensify construction of equipment and fishery facilities such as circulatory water industrial cultivation and cage cultivation. Propel the mechanization and automation of aquaculture and gear up to lift the aquaculture equipment level.

---**Bolster the building of fishing boat and port facilities and equipment.** Channel more efforts to achieve the standardization of fishing boats, fishing machines, and fishing gear, and upgrade fishing boat and equipment step by step in line with plans to augment the overall equipment level of fishing boats. Increase construction standards of fishing ports classified at or above Class I by reasonably increasing the distribution density and equipping sets of navigation marks, port surveillance system and other facilities and equipment; initiate the construction of fishing ports classified as Class II and shelter anchorages, and enhance fishing port modernization and security.

---**Enhance information applications in fishery administration.** Accelerate the upgrading and modification of the national fishery administration and guidance system, build and comprehensively launch a national marine fishing boat dynamic management system, and expedite the building of information-based management systems including fishing boat position monitoring, automatic identification, and electronic ID identification. Press ahead the routinization of fishery information collecting step by step, promote data and information integration and sharing, and increase applications of modern information technologies in fishery management such as satellite remote sensing, mobile internet, and the Internet of Things, and continuously improve informatization management levels in fishery management.

## **(7) Continually improve the modern fishery scientific and technological support system**

---**Speed up fishery scientific and technological innovation.** Strengthen scientific and technological leading talents and backbone talents; build interdisciplinary and inter-field scientific and technological innovation platforms for variety breeding, disease prevention and control, feed nutrition, quality and safety, resource conservation, and energy saving and emission reduction; jointly tackle key problems and carry out technological integration surrounding critical links such as aquatic product processing and comprehensive development and utilization of waters suitable to fishery; and accelerate the transformation and application of research results. Strive to formulate national and industrial standards that are urgently necessary for industrial development and scale up the implementation of such standards.

---**Enhance technology promotion services.** Focus on the reform and construction of local aquatic technology promotion systems and vigorously popularize accountability systems related to fishing technology. Make more efforts to set up an aquatic technology promotion and service system with the national aquatic technology promotion institute as the main body and the wide participation of the fishery industry, universities, and research institutes, typical of “one main body and multiple participants.” Begin projects on personnel training and knowledge updates for aquatic technology promotion, enhance the training of leaders of rural fishery practical talents, and strengthen public service capabilities related to aquatic technology popularization, aquatic animal disease prevention and control, aquatic product quality surveillance, and public information.

---**Press ahead on fishery energy saving and emissions reduction.** Gradually achieve fishing boat standardization, study and design energy-saving and environmental-friendly fishing boats, develop glass fiber reinforced plastic (GFRP) fishing boats, replace and weed out energy-intensive fishing boats, and disseminate new technologies, new devices, and new products for energy saving and emission reduction of fishing boats. Vigorously lead the popularization and application of water-saving, energy-saving and emission-reduction aquaculture technologies and models, and energetically promote circulating water cultivation, effective formula feeds, water quality adjustment and control technologies, and environmental-friendly equipment.

## **(8) Establish and improve the resource and environment protection and management system**

---**Comprehensively reinforce the fishing moratorium and closure system.** Adhere to and continuously improve the system governing oceanic summer fishing moratorium and the Yangtze River fishing closure period, initiate the implementation of Pearl River fishing closure period system, explore the formulation of fishing closure measures for other major fishery waters, and set up a comprehensive system of oceanic and inland water fishing moratorium and closure regulations. Include fishermen with difficulties into the local minimum life security coverage or give them necessary subsidies to create conditions for the smooth execution of fishing moratorium and closure system.

---**Place efforts into strengthening the protection of aquatic organism species.** Strengthen aquatic biological resource investigation and evaluation and clarify total resource volume and available volume. Construct aquatic natural reserves, rapidly build aquatic genetic resource preservation areas, reinforce capabilities of protection and saving of endangered species, boost protection and management of spawning grounds, feeding grounds, overwintering grounds, and migration routes for aquatic genetic resources. Draft and improve laws and regulations associated with the management of aquatic organism preservation areas and facilitate standardized and scientific management of reserves.

---**Accelerate the establishment of fishery ecological compensation mechanisms.** Speed up the standardization of fishery ecological compensation management, establish and improve fishery-related project ecological evaluations and ecological compensation mechanisms, define compensation contents and standards, and carry out compensation measures. Bolster the prevention of pollution at fishery waters, set up pollution damage assessment technological systems, and strengthen capabilities concerning pollution accident investigations and emergency responses.

## **(9) Vigorously promote the fishery safety guarantee system**

---**Make solid progress in “safe fishery”.** Enhance the modernization of fishing ports and boat management, reinforce fishing boat inspection and fishing port surveillance, facilitate the building of infrastructure and equipment related to fishery safety including fishing boat communication, collision avoidance system, and fishery navigation marks, and bolster the guarantee for safety communication. Intensify the management of fishery sailor training, examination and certification, and strictly implement the system of work with certificates. Further materialize the fishery safe production accountability system, consolidate fishery safety law enforcement and training

and safety accident investigation and disposal, and practically improve the safe production. Deeply carry out activities to build safe fishery including “Safe Fishery Demonstration Prefectures” and “Civilized Fishing Ports.”

---**Practically heighten disaster prevention and relief capabilities.** Institute and improve fishery disaster prevention and relief coordination and cooperation mechanisms among meteorological, marine, and transport departments; make disaster warning, predictions, and accident assistance more timely, accurate, and effective. Enhance the training of safe production skills and increase the consciousness of fishermen about disaster prevention and relief as well as their capabilities to save themselves and others. Address both prevention and control and endeavor to realize scientific disaster prevention, active disaster avoidance, and effective disaster response. Improve emergency on-duty shift, disaster dispatch and salvage, further refine emergency contingency plans, and enhance emergency response capabilities.

---**Build a policy-based fishery mutual insurance system.** Place more efforts to build fishery mutual insurance systems and teams, and expand the range and coverage of fishery mutual insurance services. Continue to launch central financial premium subsidies pilot units for fishery mutual insurance, initiate aquaculture mutual insurance premium pilot units, and strive to incorporate fishery to the range of the national policy-based agricultural insurance to press ahead the establishment of policy-based fishery mutual insurance system. Explore the setting up of fishery insurance catastrophe risk prevention system, and elevate the guarantee capacities against risks of the whole fishery industry.

#### **(10) Vigorously strengthen the safeguard system for the law enforcement of modern fishery administration**

---**Consolidate fishery administration, rights protection, and fishery protection.** Centering on modern fishery construction and “ecological safety, production safety and product safety” in fishery, improve capabilities of fishery administration development, serving local areas and serving fishermen. Consolidate and strengthen the management of fishing moratoriums, closures, fishing boats, resource preservation, aquaculture, and quality and safety of law enforcement, practically enhance the fishery administration and management of the exclusive economic zone spanning 200 nautical miles and border rivers and lakes, and further expand the fishery law enforcement at open seas. Reinforce the regular fishery administrative cruise as well as right and fishery protection at sensitive waters; properly address the relationship between right protection and stability maintenance; increase cooperation with relevant marine departments such as foreign affairs, public security, border defense, and maritime army; further optimize the coordination and cooperation mechanism between departments and joint fishery surveillance mechanisms of key waters.

---**Boost fishing administrative team building.** Set up and consolidate fishing administrative authorities, accelerate the management of fishery administrative staff subject to or with reference to the Civil Servant Law, and comprehensively implement the “separation between revenue and expenditure.” Establish high-quality and high-standard window units of fishery civilized law enforcement. Strengthen fishery administrative supervision and moral culture construction; implement standards and requirements on fishing administrative team building to raise the capabilities and qualities of law enforcement personnel and boost administration in line with laws. Strive to build a high-quality and professional fishery administrative law enforcement team.

---**Increase the modernization level of fishing administrative equipment.** Strengthen the construction of fishing administrative equipment and facilities, particularly those undertaking responsibilities for central government affairs; further increase the distribution rate and technological level of law enforcement equipment; ameliorate fishing administrative law enforcement conditions and reinforce capabilities of safety surveillance and emergency contingency responses. Give prominence to build fishing administrative law enforcement vessels and vehicles, law enforcement port bases, fishing boat examination equipment, and fishery navigation marks.

## V. Geographic Distribution

In accordance with resource endowments, industrial bases, and economic levels of various regions and in line with the overall requirements of “prominent main functions, optimized structure of distribution and coordinated development”, [we shall] steadily promote the construction of modern fishery production leading areas, ecological building areas and functional expansion areas to accelerate the transformation of fishermen development mode and broaden fishery functions.

### (1) Production leading areas

**Key regions:** Areas with advantages of aquatic product exports including the Yellow River and Bohai sea, southeastern coastal areas and the “Two Zones and One Area” along the Yangtze river; Middle and low stream of the Yangtze river, south China, southwestern China and the “Three Norths” [northwest China, north China, and northeast China] with advantages of bulk freshwater fish and high-quality aquatic products.

**Positioning of function:** These areas have relatively advanced fishery economy, fine resource conditions, relatively large industrial scale and production basis, and are home to over 90% national cultivations and aquatic product yields. These areas are mainly positioned to play a strategic central role in guaranteeing safe and effective supplies of aquatic products and increasing incomes of fishermen.

**Specialized directions:** (1) Increase effective supplies of aquatic products. Aim to improve the system related to fishery rights, safeguard the rights and benefits of fishermen and their production activity. Strive to vigorously promote standardized healthy cultivation by giving prominence to enhance essential projects such as breeding of aquatic good species, standardized modification of cultivation ponds, building of aquatic animal quarantine system and aquatic product quality safety; actively carry out harmless, green and organic aquatic product production and construct “vegetable basket” product manufacturing bases at the periphery of large and medium cities. Stabilize and reasonably control fishing and production. (2) Elevate industrialization. Continue to enhance the construction of export aquatic product, bulk freshwater fish and characteristic and stock variety cultivation advantageous areas, effectively link with fishery manufacturing, processing, circulation and service industries, and support and nurture leading enterprises, expand scale operations and elevate industrial concentration. Work to increase investments in scientific and technological innovation; improve and strengthen fishery social service system; gradually realize intensive production, formation of industrial clusters, and modernization of facilities and high efficiency of output; increase incomes of fishermen and competitiveness of fisheries. (3) Improve sustainable development. Under the guide of sustainable economy concept, popularize and disseminate healthy cultivation modes and advanced fishery machines and gear, develop new processes and areas of manufacturing, and promote efficient fishery featuring water saving, land saving, crop saving, oil saving, and electricity saving. Facilitate energy saving and emissions reduction, enhance resource output rate and labor production rate and achieve efficient, clean, safe and sustainable development. (4) Increase safe production guarantee capacities. Comprehensively implement the spirit of the State Council *Notice on Enhancing Fishery Safe Production*, accelerate the construction of fishery disaster prevention and relief projects including fishery administration, fishery ports and safety communication, and lift capabilities of fishery disaster prevention, relief, and emergency contingency responses.

### (2) Ecological building areas

**Key regions:** Aquatic natural reserves approved or planned by people’s governments and fishery administrative competent departments at or above prefecture level; aquatic genetic resource preservation areas and marine farm construction areas.

**Positioning of function:** These regions are mainly located around peripheral seas, rivers and lakes characterized by diverse types of waters and prominent ecological functions. They play important roles in the preservation and restoration of aquatic organisms and resources, remediation of the ecological environment of waters, and building of aquatic ecological civilizations to lay solid resource foundations for modern fisheries.

**Specialized directions:** (1) Improve resource preservation. Concentrate on scientific planning and energetic implementation of aquatic biological resource proliferation and release, initiation of aquatic biological resource preservation projects, and faster construction of aquatic natural reserves, aquatic genetic resource preservation areas and marine farms. (2) Increase ecological compensation. Speed up the establishment and improvement of fishery ecological compensation systems, explore setting up market-oriented ecologic compensation mechanisms, promote the execution of ecological compensation measures; enhance environmental monitoring of key waters as well as elevate capabilities to investigate and tackle pollution accidents at fishery waters. (3) Consolidate the proliferation fishery. Channel great efforts to develop proliferation fisheries that can restore the ecology of waters, and actively use aquatic plants and filter feeder animals to improve and remediate the ecological environment of waters so as to propel coordinated development of fishery ecology and production.

### **(3) Functional expansion areas**

**Key regions:** Municipalities under the direct governance of central government, provincial capital cities, cities with independent planning status, other large- and medium-sized cities and adjacent regions; deep waters beyond 15m isobaths contours; open seas and seas under the governance of other countries; cultivation areas at northeast, middle and lower stream of the Yangtze river, southeastern coastal areas and southwestern croplands; and low-lying saline and alkaline areas along the Yellow River.

**Positioning of function:** These regions commonly have potentials of resource development, function expansion, and comprehensive use, and the main focus is to unleash their potential in expanding fishery functions and space to enrich and consummate forms of modern fishery and contribute to the formation of new points of growth.

**Specialized directions:** (1) Improve the levels of development of resources favorable to fishery. Properly develop and fully utilize resources favorable to fisheries; increase research, development and promotion of critical technologies; study and formulate relevant support policies; vigorously develop deep water anti-wave cage cultivation, cropland cultivation, and saline and alkaline-resistant cultivation; support and strengthen distant sea fishery; and further diversify new channels of aquatic product supplies to increase aquatic product supplies. (2) Improve levels of leisure fisheries. Areas in and around big cities to fully harness current fishery facilities and take into account the demands of urban citizens for cultural education, leisure, and entertainment and traveling to proactively advance the modern leisure fishery.



## List of Distribution of Modern Fishery Regions during the “12th Five-Year” Period

Name	Scope of distribution	Positioning of function	Specialized directions
Production leading areas	<p>Areas with advantages of aquatic product export including the Yellow River and Bohai sea, southeastern coastal areas and the “Two Zones and One Area” along the Yangtze river</p> <p>Middle and low stream of the Yangtze river, south China, southwestern China and the “Three Norths” with advantages of bulk freshwater fish and high-quality aquatic product</p>	Ensuring safe and effective supplies of aquatic products	Elevating aquatic product effective supplies, industrial development, sustainable development and safe production guarantees
Ecological building areas	Aquatic natural reserves approved or planned by peoples’ governments and fishery administrative competent departments at or above prefecture level; aquatic genetic resource preservation areas and marine farm construction areas	Preserving aquatic organisms and resources and remediating the ecological environment of waters	Enhancing resource preservation, ecological compensation, and proliferation fishery development
Functional expansion areas	<p>Municipalities, provincial capital cities, municipalities with independent planning status, other large and medium-sized cities and adjacent regions;</p> <p>Deep waters beyond 15m isobaths contour;</p> <p>Open seas and seas under the governance of other countries;</p> <p>Cultivation areas at northeast, middle and lower stream of the Yangtze river, southeastern coastal areas and southwestern croplands;</p> <p>Low-lying saline and alkaline areas along the Yellow River</p>	Expanding fishery functions and space	Elevating the development of resources favorable to fishing and the level of leisure fishery development

### VI. Priority Projects

In accordance with the concept of “consolidating bases, improving capabilities, and safeguarding development” and surrounding the major tasks and distribution of regions of modern fishery development, [we shall] energetically organize and conduct priority modern fishery projects to continuously solidify the bases for modern fishery development.

#### (1) Fishery administration and fishing port construction projects

Centered around the task of protection of rights and fishery activities at oceans and fishery administration at inland key waters and border waters, aim to build a batch of large vessels for fishery administration predominated by vessels with 3,000 dead weight tonnages and supporting facilities and devices such as helicopters, fishery administration bases, medium- and small-sized law-enforcement boats, and enhance the mobility and deterrence of fishery administration and law enforcement. Strengthen the construction of lifesaving, communication, collision avoidance and surveillance systems, fishery navigation marks of fishing vessels and training bases; accelerate the application of information technologies in fishery management and safe production. In line with the concept of building “information-based, digital and disaster- prevention” modern fishing ports focus on the construction of coastal disaster-prevention ports, improve the planning and distribution of large and medium-sized fishing ports, properly increase the concentration of fishing ports classified as or above Class I and raise construction standards, initiate construction of coastal fishing ports classified as Class II and shelter anchorages, and improve relevant fishing boat and fishing port surveillance devices. Continue to promote the construction of key fishing ports at inland large rivers and lakes and border waters.

## **(2) Projects for promotion of improved aquatic varieties**

Disseminate modern breeding technologies, enhance key programs of joint breeding with bulk species and advantageous export species as main focus, speed up the establishment of aquatic genetic breeding center, increase genetic improvement rate of aquaculture species to provide good and new varieties for modern aquaculture. Improve modern fishery aquatic stock and improved variety system, consolidate construction of aquatic stock variety farms and improved variety farms, and increase the coverage of aquatic stock and improved varieties and the quality of fingerlings.

## **(3) Projects for standardized modification of cultivation ponds**

Improve the aquaculture standardization and ameliorating the environment of cultivation waters, use central financial inputs to gain the support of local finances at various levels and fundraising and labor investment of manufactures, and give impetus to the standardized modification of ponds with low and medium yields. With the driving force of demonstration, strive to popularize efficient and ecological aquaculture methods, and make cultivation more professional, standardized, intensive, and larger in scale.

## **(4) Aquatic animal quarantine projects**

Speed up the improvement of aquatic animal quarantine system, concentrate on the construction of national, provincial and key prefecture-level aquatic animal quarantine infrastructure and disease reference laboratories as well as key laboratories, strengthen the mechanism of relevant work step by step such as aquatic animal disease monitoring and aquatic fingerling place of origin quarantine, and establish and refine aquatic animal disease prevention and control warning and prediction system as well as technological system for safe use of fishery drugs. Reinforce the regulation of practices of fishery rural veterinarians, certified veterinarians and aquatic animal diagnosis and treatment institutes. Speed up the industrial production of aquatic animal vaccines and disseminate distant diagnosis aid systems.

## **(5) Aquatic product quality safety projects**

Strengthen aquatic product quality and safety sample inspection and law enforcement capabilities; establish national, provincial and ministerial- level quality examination centers and professional quality examination centers; press ahead the building of city and prefecture-level quality examination systems in key regions; and improve the mechanism of relevant work as schedules. Promote research and applications of devices for fast testing, and offer technical support for aquatic product quality and safety law enforcement and implementation of place of origin exit and market access systems.

## **(6) Distant sea expansion projects**

Consolidate and expand distant water fisheries, vigorously develop oceanic fisheries, and in combination with national foreign aid construction programs, actively build multifunctional overseas bases for comprehensive development to form overseas terrestrial logistic bases integrating production, processing, sales and logistics supplies. Increase the subsidies for building distant sea fishing vessels, propel the upgrade and modification of distant sea vessels and lift the overall level of equipment. Build properly-sized boats for survey of open sea and oceanic resources; increase support for investigation, exploratory catch and development of distant sea fishery resources; broaden investigation and exploratory catch of Antarctic marine organisms and resources; and reinforce research and development of processing and utilization of Antarctic krill and market exploitation.

## **(7) Aquatic biological resource preservation projects**

Advance ecological restoration campaigns, mainly in the form of proliferation and release and construction of marine farms, and drive the progress of leisure fishery and other industries. Place more efforts to construct aquatic natural reserves, aquatic genetic resource preservation areas and marine ecological restoration demonstration areas to provide effective protections for 60% national key aquatic wild animals and a batch of important aquatic genetic resources, typical wetlands and ecological systems of waters. Focus on important sea areas and basins and strengthen systems for monitoring of aquatic biological resources and the ecological environment of waters, and provide support for contingency responses to pollution accidents and major ecological disasters in fishery waters.

## **(8) Scientific and technological innovation and application competence building projects**

Carry out various national, industrial and provincial-level research plans around urgent and crucial technologies for fishery development. Establish a modern agricultural technological system in the field of fishery, and formulate and refine a modern fishery technological system. Foster special programs for major aquatic technological promotion and quicken the setup of fishery demonstration prefectures for reform and construction of basic-level agricultural technological promotion systems. Fishery standard system to be formulated and improved and fishery standardized production will be advanced. Guide the wider applications of water-saving, energy-saving and emissions reduction fishing boats, machines, and gear as well as cultivation and manufacturing facilities; facilitate the modification of fishing boat energy-saving technologies and experimentally promote the glass fiber reinforced plastic boats.

## **VII. Safeguard Measures**

### **(1) Strengthening law and regulation**

Establish and refine fishery waters and beach planning and protection systems to practically preserve the fishery functions of important fishery waters and beaches and protect the development space of fishery. Direct efforts to accelerate the formulation of cultivation waters and beach appropriation compensation system and fishing licensing system compatible with property law, and perfect the relocation system of fishery waters and beach appropriation compensation so as to protect the legal rights and benefits of fishermen. Stipulate emission reduction and up-to-stand emission system, strengthen the environmental impact evaluation system for fishery-related projects and resource ecological compensation mechanism, and bolster the pollution prevention and remediation of waters and restoration of ecological environment. Reinforce law enforcement during the process of cultivation and aquatic product quality testing and draft long-term aquatic product quality and safety surveillance systems. Fishery administration and law enforcement team building and monitoring to be solidified to effectively prevent and crackdown on various illegal acts that damage fishery resources and disrupt the fishery production orders. Increase communication and coordination with

legislative authorities and relevant developments to speed up the formulation and revision of regulations and rules relevant to fishery, therefore consummating fishery legal system and bolstering legal safeguards for management of fishery development.

## **(2) Improving policies supporting the industry**

Drive up financial support for modern fishery development and strive to realize the increase of financial inputs in fishery no less than that in agriculture. Mobilize the public to participate in fishery activities, increase support for fishery microfinance, explore mortgage, pledge and circulation method of cultivation right and fishing license, and enhance credit support for fishery producers and operators so as to realize diversified and multi-channeled fishery investment and funding. Broaden the categories of products entitled to fishing machine subsidies. Strive to include fishery insurance into the coverage of national policy-based agricultural insurance and establish a stable fishery risk control mechanism as soon as possible. Optimize the fishery safe production management system and actively press ahead the incorporation of fishery disaster prevention and relief into the national overall deployment against natural disaster prevention and treatment. Explore putting into place a mechanism conducive to accelerate fishery energy saving and emission reduction and fully exploit the carbon storage function of fishery. Facilitate the fishery entitled to agricultural preferential policies including tax and water, electricity and land use, include construction of fishery infrastructure into agricultural and rural development overall plan and projects such as national land remediation and farm land water conservancy facility modification for high-quality and effective farm product bases for the purpose of coordinated progress. Proactively press ahead the settlement of fishermen living in boats on land and subsidies for disadvantaged fishermen during the fishing moratorium and closure period, therefore contributing to the progress of social causes in the field of fishery.

## **(3) Promoting the innovation of operational mechanisms**

Support the development of leading enterprises and fully play their key roles in the technological innovation, gear up production base construction and encourage enterprises to participate in standardized building activities. Encourage and support qualified fishing producers and operators to pioneer cooperative operations, accelerate the training of enterprise managerial personnel, professional cooperative organization leaders and fishery agents urgently needed in fishery industrial development. Nurture and grow various types of fisherman professional cooperative agencies and industrial associations, boost standardized building of cooperative organizations and support eligible cooperative organizations to undertake national fishery-related programs. Disseminate various effective fishery production, operation and organization modes and endeavor to make fishermen more organized. Invest efforts to promote the agglomeration of aquatic product production industry, speed up the construction of a batch of modern fishery demonstration areas and form new advantages for regional economic development. Energetically develop social service organizations to offer fishermen convenient, efficient, high-quality, and cost-effective professional services; vigorously promote the “linkage between farmers and supermarkets” and brand operation, reduce logistic costs, increase market consumption and further elevate production efficiency and operational benefits.

## **(4) Speed up the building of talent teams**

Consolidate the strategic status of talent building in the overall development of modern fishery. Proactively materialize stimulus policies, innovate talent training models, and explore and establish talent working mechanisms typical of multi-channel training, diversified evaluation, multilevel use, multi-modal encouragement, and multi-faceted services. Direct targeted efforts to nurture backbone talents and build talent teams of fishery management, science and technology, production and operation closely based on the requirements of modern fishery development. Enhance the building of disciplines of higher education schools by improving the traditional disciplines and offering new disciplines. Deepen the cooperation with professional schools, training institutions and

administrative authorities and enterprises to gradually form a talent nurturing and training system for such fishery as characterized by standard operation, reasonable distribution and comprehensive coverage. Reinforce fishery industrial skill certifications and broaden the coverage of professional skill certifications. Augment the training of skilled professionals, including boat inspectors, professional sailors, certified veterinarians, rural veterinarians and aquatic agents. Fully utilize the Sunshine Project [free career skills training funded by central finance for farmers], new farmer training and other training channels and focused on the consolidation of local training, strengthen training of practical talents and leaders, and bolster the innovativeness and employable skills of fishermen to improve the quality of fishery workers in a comprehensive way.

#### **(5) Deepen foreign exchange and cooperation**

Construct a sound fishery foreign affairs mechanism with integration and positive interaction among administrative authorities, research institutes, and large enterprises. Build a team of fishery foreign affairs professionals that master fishery professional knowledge, laws and regulations, and foreign languages. Make more efforts to research international fishery management rules and fishery management systems of other related countries to offer experience for fishery development and management in China. Channel more endeavors to enhance cooperation with relevant international organizations and countries and actively participate in multilateral and bilateral negotiations and consultations, formulation of relevant rules, and to create a favorable international development environment. Actively participate in relevant negotiations on fishery subsidies under the framework of the WTO, reinforce aquatic product warning, fully harness trade remedial measures permitted by WTO rules, and properly settle international trade disputes and protect the legal rights and benefits of enterprises. Incorporate distant sea fishery base construction into the national foreign aid plan, stabilize and expand partnership with relevant countries in fishery, augment the momentum of distant sea fishery development, and stabilize and elevate capabilities of international resource use. Conscientiously honor bilateral fishery agreements with Japan, Korea, Vietnam, Russia, etc. and relevant international fishery treaties, launch in-depth joint fishery law enforcement with other countries, reinforce the management of peripheral sea areas and sensitive waters, and maintain the orders of marine fishery production.