

# Chapter Two Marine Economy

## Background Knowledge

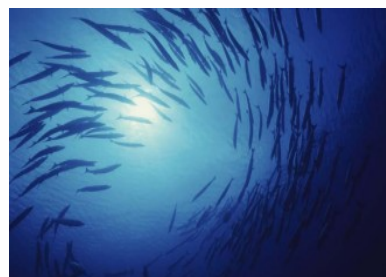
In the wake of the 2008 global financial crisis, the economies of the world are confronted with the arduous task of rebalancing and restructuring. The world is searching new and sustainable economic growth engines. That is why in this chapter we introduce the valuable experiences and good practices of Australia and Singapore, two important marine economies.

In the first case, a wide range of values of Australia's oceans, including ecosystem services, are discussed. Measures to cope with pressures such as over-fishing and depletion of fish stocks are proposed. Investment in marine protected areas to protect the full range of marine values, and provide more stable returns from Australia's natural assets is advocated. Smart, well designed and sustainable management of marine resources includes asset protection, rebuilding of fish stocks, better management of commercial fisheries, establishment of baseline data of marine ecosystems and support of marketing and business innovation for local fishing communities. In the case of Singapore, their focus is on nurturing a maritime industry cluster, featured by establishment and revitalization of the shipping and port related sectors; offshore engineering, shipbuilding and repair; and maritime services such as shipping finance, marine insurance and maritime legal and arbitration services. In addition, Singapore has spared no efforts in organizing maritime conferences, seminars and exhibitions such as Sea Asia and Maritime Week to enhance the vibrancy of Singapore's maritime industry.

China is no exception. Rich in marine resources, China's efforts to develop a marine economy is an important part of its 12th Five-Year Plan and its strategic reorientation away from a traditionally export-driven economy, which depends more on land resources. Developing the marine economy might be an effective way to solve problems such as the want of natural resources and environmental deterioration.

However, China needs to revamp its traditional development model for marine resources, which is characterized by extensive utilization of marine resources, irrational competition among coastal provinces over developing traditional marine industries, and the rampant establishment of container terminals. These challenges call for establishment of a "blue" economy that values sustainable management and conservation of marine resources. An example of China's latest efforts in developing the marine economy in a more planned and better managed manner is the Zhoushan Archipelago New Area of Zhejiang Province, which is studied in the second part of this chapter.

## Text



## Marine Economy in Australia

The Pacific Ocean is a major contributor to the world economy and particularly to those nations its waters directly touch. It provides low-cost sea transportation between East and West, extensive fishing grounds, offshore oil and gas fields, minerals, and sand and gravel for the construction industry. In 1996, over 60% of the world's fish catch came from the Pacific Ocean. Exploitation of offshore oil and gas reserves is playing an ever-increasing role in the energy supplies of the US, Australia, New Zealand, China, and Peru.

Australia's oceans provide a wide range of values, worth over \$69 billion per annum. Yet our economic accounts recognise only \$44 billion of this value. Ecosystem services – the non-market benefits we derive from nature – are worth at least a further \$25 billion per year. This report finds there are serious risks to Australia's oceans, and the people who depend on them.

Australia's oceans are not immune to global pressures. No ocean is an island. There is an urgent need to improve our ocean management policies, particularly given the risk of climate change and increasingly

## 澳大利亚的海洋经济

太平洋为世界经济，特别是与其水域直接相连的国家，做出了重大贡献。它为东西方之间提供低成本的海上运输、广阔的渔场、近海的油气田、矿藏以及建造业所需的沙石。1996 年，世界上 60% 以上的渔获量来自太平洋。近海油气资源的开采也在美国、澳大利亚、新西兰、中国和秘鲁的能源供应中发挥着越来越重要的作用。

澳大利亚海洋每年创造了超过 690 亿美元的各种价值。但我们的经济账本上却只承认了这些价值中的 440 亿美元。生态系统服务，即我们从大自然中得到的非市场效益，其价值每年至少有 250 亿美元。此报告发现澳大利亚海洋和依赖于它的人们正面临着严重风险。

澳大利亚海洋在全球压力下也不能幸免。没有一片海洋可以独善其身。考虑到特别是气候变化和日益极端的天气等风险，目前



volatile weather conditions.

We should invest in marine protected areas to protect our full range of marine values, and provide more stable returns from our natural assets. We should also rebuild fish stocks to improve long term yields, and insure against population crashes. Smart, well designed governance can align fishers' incentives with sustainable resource management, so that we no longer love our seafood to death. Better management of marine resources can improve livelihoods, and provide fairness for existing businesses and employees. Innovations in marketing can support thriving local economies.

To ensure a strong economy and a healthy marine environment, we should implement the following five simple measures to provide a buffer against risks, and a reserve to support long run opportunities. These would secure our marine resources for all Australians; support long-term jobs in commercial fishing and marine tourism; and provide better catches for recreational fishers. Official 2006 census estimates show direct employment of 9,736 people in the fishing industry across Australia. These figures include both State and Commonwealth fisheries, and aquaculture as well as wild-catch fisheries. They do not include an additional 6,203 people employed in fish wholesaling and seafood processing.

Protect the assets that underpin our marine estate – We must treat our marine estate as a portfolio of valuable ecological assets. We need to balance our investment portfolio across a well-managed commercial fishing estate, marine protected areas and highly protected areas. Highly protected areas within MPAs should cover a representative range of ecosystems along the coastal shelf – especially those which act as nurseries for fish

迫切需要改进海洋管理政策。

我们应该加大对海洋保护区的投入，保护我们整个海洋价值链，并且提供更稳定的自然资产回报。我们也应该恢复鱼群以提高长期收益，并确保不会出现鱼量锐减。充满智慧而又设计良好的治理方案能够将渔民激励与可持续资源管理结合起来，这样我们对海鲜的爱才不会导致其消亡。更好地管理海洋资源可以改善生计，并确保现有企业和员工获得公平。创新营销可以支持地方经济的蓬勃发展。

为了确保强劲的经济发展和健康的海洋环境，我们要落实以下五个简单措施，以提供风险缓冲和储备获取长期机会。这些措施将保障所有澳大利亚人的海洋资源，保障在商业捕鱼和海洋旅游领域的长期就业，并为休闲垂钓者提供更好的渔获。2006年官方人口普查统计表明在澳大利亚直接从事捕鱼业的有9736人。该数字既包括了州和联邦渔业，又包括了水产养殖和野生捕鱼。但不包括额外受雇于鱼和海产品批发加工的6203人。

保护我们的海洋产业赖以维系的资产：我们必须把海洋产业作为一个宝贵的生态资产组合来对待。我们的投资组合要在有序的商业捕鱼产业、海洋保护区和高度保护区之间取得平衡。海洋保护区内的高度保护区应包括

and other marine life. In particular, the South-West bioregion MPA should be adjusted to include areas of coastal shelf, seagrass and coral based on scientific recommendations. This could cover and protect an additional \$1.1 billion per year in ecosystem services value.

**Rebuild fish stocks –** We need to take better care of fish stocks to reduce the risk of collapse. While management measures for our Commonwealth fisheries provide a strong foundation for reducing over-fishing, 42 per cent of our fisheries remain in an over-fished or unknown state. The Australian Fisheries Management Authority (AFMA) should review current targets for sustainable harvest levels with a view to targeting higher levels of fish stocks. Total Allowable Catch limits should be tightened by a small percentage each year to provide a smooth transition for commercial fishers.

**Ensure all commercial fisheries are sustainably managed —** We need to adjust economic incentives to avoid poverty traps for commercial fishers and loss of resources for tourism and recreation. Around half of Commonwealth fisheries are currently struggling to cope with economic pressure from rising fuel prices, a high Australian dollar and increased competition. AFMA should review current subsidies for all fisheries. Subsidies that encourage over-fishing should be urgently redirected toward improving security of long-term income and employment by reducing excess fishing fleet or excess fishing quotas.

**Establish baseline data for recreational catch and biomass in undisturbed ecosystems—** We need better information to avoid sudden collapse of ecosystems.

沿海陆架上具有代表性的生态系统——尤其是那些鱼类和其他海洋生物的育苗区。特别是，西南生物区海洋保护区应在科学建议的基础上进行调整，覆盖沿海陆架、海草和珊瑚。这便能覆盖和保护每年额外的 11 亿美元的生态系统服务价值。

**恢复鱼群：**我们需要更好地照顾鱼类种群以减少灭绝的风险。虽然我们的联邦渔业管理措施，为减少过度捕捞打下了坚实基础，但是 42% 的捕鱼区仍处于过度捕捞或未知状态。澳大利亚渔业管理局(简称 AFMA)应审查当前目标，维持可持续捕捞水平，并将恢复更高水平的鱼群作为目标。应每年少量收紧总体允许渔获量的上限，确保商业渔民顺利过渡。

**确保所有商业渔业得到可持续管理：**我们需要调整经济激励政策，避免商业渔民陷入贫穷困境以及旅游和休闲资源损失。大约一半的联邦渔业目前正在努力应对燃料价格上涨、澳元升值和竞争加剧带来的经济压力。澳大利亚渔业管理局应审查目前所有的渔业补贴。鼓励过度捕捞的补贴应立即重新定向，补贴给能够提高长期收入和就业安全性的领域，减少过多的捕捞船队或过多的捕捞配额。

在人迹罕至的生态系统确定休闲捕捞和生物数量的基准数据：



While our knowledge of many commercial fisheries has improved, we don't have enough information on recreational catch and on how marine ecosystems function to manage multiple pressures well. The Federal Government should regularly review the effectiveness of protected areas in achieving both ecosystem and fishery management objectives.

Support local communities through marketing and business innovation — We need innovations in marketing and business models to help local economies find opportunities from changing market demand and resource availability. If implemented well, these recommendations could see Australia leading the world with thriving local fishing communities, a robust export market, and healthy and secure oceans for all Australians. If global over-fishing continues unabated, undermining long term production from existing overseas fisheries, the value of commercial fish production from sustainably managed Australian fisheries could increase by 42 per cent, to \$3.3 billion per year. Even if the risks to Australia's oceans prove to be less serious, implementing these recommendations will benefit the fishing and marine tourism industries and recreational fishers. There is growing evidence that MPAs produce larger fish and more stable catch levels for both commercial and recreational fishers. Incremental changes in Total Allowable Catch limits can be implemented for minimal cost, and offer higher returns to commercial fishers over the long term.

我们需要更好的信息，以避免生态系统的突然崩溃。虽然我们对许多商业捕鱼的了解有所改善，但是还没有足够关于休闲捕鱼以及海洋生态系统是如何应对多方压力的信息。联邦政府应定期审查保护区在实现生态系统和渔业管理目标方面的有效性。通过市场营销和业务创新支持当地社区：我们需要创新的营销和商业模式，帮助当地经济在瞬息万变的市场需求和可用资源中寻找机遇。如果实施得好，这些建议可以使澳大利亚拥有世界上最繁荣的地方捕鱼社区、强劲的出口市场，以及所有澳大利亚人共有的、健康安全的海洋。如果全球过度捕捞继续有增无减，破坏现有海外渔业的长期产量的话，那么澳大利亚可持续管理渔业生产的商业价值就有可能增加 42 个百分点，达到每年 33 亿美元。即使澳大利亚海洋面临的风险被证明不太严重，实施这些建议也将有利于渔业、海洋旅游业和休闲垂钓者。有越来越多的证据表明，海洋保护区能使商业和休闲渔民获得更多的鱼和更稳定的捕捞量。实现可允许总渔获量限制的增加只需要很低的成本，并可为商业渔民提供更高的长期回报。

## Words & Phrases

- offshore oil and gas fields 近海油气田  
 Peru [pə'ru:] *n.* 秘鲁  
 per annum 每年  
 account [ə'kaʊnt] *n.* 账目; 报告  
 derive from 得自; 由来  
 be immune to 免于……的  
 volatile ['vɒlətaɪl] *adj.* 不稳定的; 反复无常的  
 yield [ji:ld] *n.* 生产量; 投资收益  
 incentive [ɪn'sentɪv] *n.* 激励; 刺激  
 align... with... 使……一致; 匹配  
 buffer ['bʌfə] *n.* 缓冲区  
 reserve [rɪ'zɜ:v] *n.* 储备, 储存  
 catch [kætʃ] *n.* 捕获物  
 aquaculture ['ækwəkʌltʃə] *n.* [水产] 水产养殖  
 wild-catch fishery 野生捕鱼(或传统渔业)  
 wholesaling and processing 批发与加工  
 nursery ['nɜ:səri] *n.* 育苗区  
 coral ['kɔ:rəl] *n.* 珊瑚  
 subsidy ['sʌbsɪdɪ] *n.* 补贴  
 quota ['kwəʊtə] *n.* 配额,  
 unabated ['ʌnə'beɪtɪd] *adj.* 不衰的  
 undermine [ˌʌndə'maɪn] *v.* 破坏  
 incremental [ɪnkrɪ'mentəl] *adj.* 递增的, 增量的

## Terms

**1. State and Commonwealth (州与联邦):** The Commonwealth of Australia is a country in the Southern Hemisphere comprising the mainland of the Australian continent, the island of Tasmania, and numerous smaller islands in the Indian and Pacific Oceans. It is the world's sixth-largest country by total area. Australia has six states—New South Wales, Queensland, South Australia, Tasmania, Victoria, and Western Australia—and two major mainland territories—the Northern Territory and the Australian Capital Territory (ACT).

澳大利亚联邦是一个南半球国家, 由澳大利亚大陆、塔斯马尼亚岛和许多太平洋和印度洋小岛屿组成。按面积计算, 它是世界第六大的国家。澳大利亚分为六个州和两个领地,



六个州分别是新南威尔士州、昆士兰州、南澳州、塔斯马尼亚州、维多利亚州和西澳州，两个领地是北领地和澳大利亚首都领地。

**2. ecosystem (生态系统):** An **ecosystem** is a biological environment consisting of all the organisms living in a particular area, as well as all the physical components of the environment, such as air, soil, water and sunlight. Ecosystem services are the benefits people obtain from ecosystems. These include provisioning services such as food and water; regulating services such as flood and disease control; cultural services such as spiritual, recreational, and cultural benefits; and supporting services such as nutrient cycling that maintains the conditions for life on Earth. 生态系统是由生活在一个特定区域的所有生物体组成的生态环境，还包括环境中所有的物理组成部分，如空气、土壤、水和阳光。生态系统服务指的是人从生态系统中获得的好处，包括：供给服务，如食物和水；调节服务，如洪水和疾病控制等；文化服务，如精神、娱乐和文化益处；以及配套服务，如维持地球上生命条件的养分循环等。

**3. coastal shelf (沿海陆架):** the extended perimeter of each continent and associated coastal plain.

沿海陆架指的是大陆的扩展周边及相连的沿海平原。

**4. investment portfolio (投资组合):** Pool of different investments by which an investor bets to make a profit while aiming to preserve the invested amount. These investments are chosen generally on the basis of different risk-reward combinations: from 'low risk, low yield' to 'high risk, high yield' (junk bonds) ones; or different types of income streams: steady but fixed, or variable but with a potential for growth.

由不同投资组成的资金池，投资者赚取利润，同时保护投资本金。这些投资一般根据不同的风险回报组合确定，例如“低风险，低收益”或“高风险，高收益”，或者根据不同类型的收入来源确定，如稳定但固定或不稳定但有增长潜力的收入来源。

## Notes

1. Australia's oceans are not immune to global pressures. No ocean is an island. 澳大利亚海洋在全球压力下也不能幸免。没有一片海洋可以独善其身。“No ocean is an island”模仿英语习语，“No man is an island”，后者意思是没有人是孤岛，可以独善其身，我们与周围社会的一切息息相关。
2. We should also rebuild fish stocks to improve long term yields, and insure against population crashes. Smart, well designed governance can align fishers' incentives with sustainable resource management, so that we no longer love our seafood to death. 我们也应该恢复鱼群以提高长期收益，并确保不会出现鱼量锐减。充满智慧而又设计良好的治理方案能够将渔民激励与可持续资源管理结合起来，这样我们对海鲜的爱才不会导致其消亡。align...with...意为“使……一致，匹配”。

3. Establish baseline data for recreational catch and biomass in undisturbed ecosystems. 在人迹罕至的生态系统确定休闲捕捞和生物数量的基准数据, baseline data 指的是基准数据, undisturbed 意为“未被扰乱的, 人迹罕至的”。
4. Incremental changes in Total Allowable Catch limits can be implemented for minimal cost, and offer higher returns to commercial fishers over the long term. 实现可允许总渔获量限制的增加只需要很低的成本, 并可为商业渔民提供更高的长期回报。Total Allowable Catch limits 意为“可允许总渔获量限制”。

## Exercises

I. Comprehension: Choose the best answer for each of the following according to the text.

1. What is the worth of the ecosystem services that Australia's oceans provide per annum ?  
 A. \$69 billion                      B. \$25 billion                      C. \$44 billion                      D. None of the above
2. What does MPA stand for?  
 A. Marine Protected Area                      B. Marine Protection Area  
 C. Most Protected Area                      D. Most Protection Area
3. How many measures do the authors propose to ensure a strong economy and a healthy marine environment in Australia's fishing communities?  
 A. Two                      B. Three                      C. Four                      D. Five
4. How many people are directly and indirectly employed in the fishing industry in Australia, including wholesaling and seafood processing?  
 A. 9,736                      B. 6,203                      C. 15,939                      D. None of the above
5. Total Allowable Catch limits should be \_\_\_\_\_ each year to provide a smooth transition for commercial fishers.  
 A. relaxed by a small percentage                      B. relaxed by a large percentage  
 C. tightened by a large percentage                      D. tightened by a small percentage

II. Translate the following Chinese phrases into English.

1. 海洋旅游业
2. 休闲垂钓者
3. 过度捕捞
4. 有增无减
5. 捕捞配额





6. 渔业补贴
7. 可持续管理
8. 高度保护区
9. 育苗区
10. 澳大利亚渔业管理局

### III. Translate the following English Sentences into Chinese.

1. Exploitation of offshore oil and gas reserves is playing an ever-increasing role in the energy supplies of the US, Australia, New Zealand, China, and Peru.
2. While our knowledge of many commercial fisheries has improved, we don't have enough information on recreational catch and on how marine ecosystems function to manage multiple pressures well.
3. We need to balance our investment portfolio across a well-managed commercial fishing estate; marine protected areas and highly protected areas.
4. Around half of Commonwealth fisheries are currently struggling to cope with economic pressure from rising fuel prices, a high Australian dollar and increased competition.
5. If implemented well, these recommendations could see Australia leading the world with thriving local fishing communities, a robust export market, and healthy and secure oceans for all Australians.

## Case Study

### Passage A

The Growth of Singapore's Maritime Cluster	新加坡海洋产业群的发展
As the world increasingly looks towards Asia for trade, Singapore has been quick to capitalise on her strategic position to further develop the maritime industry that supports world trade. The Singapore Maritime Industry has seen significant growth over the last 40 years, evolving from a small regional ship repair and building centre into a world-class industry that serves international clientele. Globally renowned for its reliable and convenient range of comprehensive marine services, Singapore is a one-stop marine centre for	随着世界贸易越来越依赖亚洲，新加坡也在加紧利用其战略地位进一步发展海洋产业，支持世界贸易。新加坡海洋产业在过去的 40 年有了显著增长，从一个小的地区船舶修理和建造中心变成了世界级的、服务国际客户的产业。新加坡各种可靠和方便的海洋综合服务享誉全球，是一个为世界各地的船东、管理人员和代理商提供一站

shipowners, managers and agents around the world.

The Singapore maritime industry is an important part of the Singapore economy contributing approximately 7% of Singapore's GDP and employing over 96,000 people. The cluster comprises more than 5,000 maritime establishments in the following sectors: (a) Shipping and Port related sectors; (b) Offshore, Shipbuilding and Repair; and (c) Maritime Services such as shipping finance, marine insurance and maritime legal and arbitration services.

### Shipping and Port Related Sectors

The port of Singapore remains the world's busiest in terms of shipping tonnage and container throughput. In 2006, total vessel arrivals in terms of shipping tonnage stood at 1.4 billion gross tonnes (GTs) and container throughput was a record 27.9 million TEUs. In the same year, Singapore sold 31.5 million tonnes of bunkers and remains the top bunkering port in the world in terms of bunker sales.

According to the *"Review of Maritime Transport, 2007"*, a report by the United Nations Conference on Trade and Development (UNCTAD), Singapore is the 10th most important maritime country. The Singapore Registry of Ships (SRS) has also continued to grow and the Singapore flag is carried in excess of 39 million GT in 2007.

The growth in the number of major shipping companies establishing operating bases in Singapore has been encouraging. Major reputable international shipping groups from leading maritime countries have made Singapore their shipping hub for Asia.

### Offshore, Shipbuilding and Repair

The offshore and marine engineering (OME) sector has also undergone tremendous transformation over

式海洋服务的中心。

新加坡的海洋产业是新加坡经济的重要部分, 占新加坡国内生产总值约 7%, 雇用了 96 000 多名工人。这个产业群包括超过 5000 个海事机构, 分布在以下部门: ①船舶及港口相关部门; ②近海、船舶制造及修理部门; ③海事服务如航运金融、保险和海事法律及仲裁服务等部门。

### 航运和港口相关部门

从船舶吨位和集装箱吞吐量来看, 新加坡港一直是世界上最繁忙的港口。2006 年, 其总船只抵港船舶吨位达到了 14 亿个总吨位(GT), 集装箱吞吐量达到了创纪录的 2790 万标箱(TEU)。在同一年, 新加坡销量了 3150 万吨的油槽船, 在油槽船销售方面仍然是世界第一的加油港。

根据联合国贸易和发展会议(简称“贸发会议”)编写的《2007 年海运审查报告》, 新加坡是排名第十的重要海运国家。新加坡船舶注册局(简称“SRS”)的注册量也持续增长, 新加坡国旗已经飘扬在超过 3900 万总吨位的船舶上。

在新加坡建立运营基地的大型船舶公司数量的增长也让人备受鼓舞。主要海运国家的大型国际知名航运集团也将新加坡作为其亚洲航运枢纽。

### 近海、船舶制造及修理

近海与海洋工程(简称 OME)部门在过去 40 年也发生了巨大变化。



the past 40 years. Today, with 70% of the global market share of Floating Production Storage Offloading (FPSO) vessel conversion, 70% of world market share for jack-up rig building and 20% of world market share for ship repair, Singapore boasts a comprehensive offering of repair services, conversions and new constructions for an international clientele. Today, Singapore is one of the world's premier ship repair and ship conversion centers as well as a global leader in the building of jack-up rigs and the conversion of FPSO (Floating Production Storage and Offloading) units. It is also a niche player in the construction of customised and specialised vessels.

### **Shorebased Maritime Services**

The growth in Singapore's shorebased maritime services, critical in supporting the expansion of the pool of shipping companies, has been evident in various sectors such as shipping finance and marine insurance.

A plethora of shipping finance-related companies has established offices in Singapore. These include banks, boutique shipping investment banks, private equity arrangers, shipping finance advisers, shipping finance conference organizers and publishers of maritime finance transactional information. In the marine insurance market, Singapore has witnessed good growth between 2006 and 2007 in the number of Lloyd's Syndicates in Singapore that undertake marine insurance. The launch of the SGX AsiaClear, the first clearing facility for freight and energy derivatives in Asia, in May 2006 has created opportunities for Singapore to leverage on her position as a key hub port for oil and maritime commerce to serve the Asian energy and Forward Freight Agreements (FFA) market.

今天,新加坡拥有 70%的浮式生产储卸油(FPSO)船舶改装全球市场份额, 70%的自升式钻井平台世界市场份额和 20%的船舶修理世界市场份额,新加坡能为国际客户提供全面的维修、改装和新船制造服务。今天,新加坡是世界上首屈一指的船舶修理和船舶改装中心以及全球领先的自升式钻井平台和浮式生产储卸油装置改装中心。它也在定制和专用船只建造方面有其特色优势。

### **岸上海事服务**

新加坡的岸上海事服务的增长是支持扩大航运企业集群的关键,这样的增长在航运金融和保险等各行业已很明显。

已经有太多的航运金融相关企业在新加坡设立了办事处,其中包括银行、精品航运投资银行、私募股权基金、航运金融顾问、航运金融会议组织者和海事金融交易信息的发布者。在海事保险市场,2006和2007年在新加坡购买海事保险的劳埃德辛迪加数量出现了良好的增长。新交所亚洲结算行作为亚洲的第一家货物和能源衍生品交易结算行,在2006年5月,给新加坡创造了机会,使其更好地利用作为重要的油料和海上商贸枢纽港口的地位,服务于亚洲能源和远期运费协议(FFA)市场。

**Maritime Vibrancy, Maritime Buzz**

Flagship events such as Sea Asia and Maritime Week have served to enhance the vibrancy of Singapore's maritime industry. A biennial maritime conference-cum-exhibition, the inaugural Sea Asia was launched in Apr. 2007 in Singapore and attracted over 7,000 participants from 42 countries. Maritime Week, which comprises week-long maritime conferences, seminars and networking events, was another event which reflects the successful collaboration between the government and the industry.

**Medium term outlook**

Singapore has been considerably successful in recent years in growing our base of shipowners and operators through various programmes geared towards facilitating the operations of maritime enterprises in Singapore. We expect to witness further growth not only in our pool of shipowner-operators, but also in Singapore's maritime services including shipping finance, marine insurance and maritime legal and arbitration services in the next few years.

Similarly, the growth for shipbroking and chartering is expected to remain strong and the outlook for the offshore and marine engineering sector positive as demand for oil and gas exploration and production remains robust, especially in Asia.

In the medium term, we expect the contribution of the Singapore Maritime Cluster to Singapore's GDP to register steady growth. Employment in the Singapore Maritime Cluster is also likely to keep pace with the cluster's growth, especially in sectors such as shipping and port related sectors, offshore and shipbuilding & repair sectors.

**海洋活力，海洋喧嚣**

“亚洲海事展览会”和“海事周”等旗舰活动有助提高新加坡海运业的活力。两年一次的海洋产业会议暨展览，即首届亚洲海事展览会于2007年4月在新加坡举行，吸引了来自42个国家超过7000名与会者。海事周则包括了为期一周的海事会议、研讨会及交流活动，它再一次反映了政府和行业之间的成功合作。

**中期展望**

在最近几年，新加坡通过各种着眼于促进海洋企业发展的方案已成功地扩大了船舶所有人和经营人基数。在未来的几年期望看到进一步增长，不仅在船舶所有人和经营人数量上，而且在新加坡的海运服务方面，包括航运金融、保险、海事法律及仲裁服务，都有所增长。

同样，我们也期待船舶经纪和租赁的强势增长，而且随着油气开发和生产的强势需求(尤其在亚洲)，近海和海洋工程部门的前景也保持乐观。

在中期，我们期待新加坡海洋产业集群对新加坡国内生产总值的贡献稳步增长。新加坡海洋产业集群带来的就业也有望与产业集群一起增长，特别是在船舶及港口相关产业、近海、造船及修船部门。



## Passage B



## Pearl of the New Marine Economy

The Zhoushan Archipelago in east China's Zhejiang Province, which consists of 1,390 islands, won approval to build a state-level new area and develop the marine economy.

The new area is China's fourth development area to receive state-level policy support to allocate resources and attract investment, next to the Pudong New Area of Shanghai, Binhai New Area of Tianjin and Liangjiang New Area of Chongqing.

But it is China's first state-level development area oriented toward the marine economy, said Lu Zushan, Governor of Zhejiang Province.

The Zhoushan Archipelago, located at the juncture of China's eastern coastline, has an ideal location, marine resources and industrial strengths working to its advantage.

The Zhoushan new area is expected to inject new steam into Zhejiang, one of China's major manufacturing powerhouses in the Yangtze River Delta, while assisting development of China's marine economy and deploying its overall strategies for regional development, Lu said.

## 新海洋经济的明珠

舟山群岛位于中国东部的浙江省，由1390个岛屿组成，获批建立一个发展海洋经济的国家级新区。

该新区是中国第四个在资源分配和吸引投资方面享受国家级政策扶持的开发区，之前三个是上海浦东新区、天津滨海新区和重庆两江新区。

浙江省省长吕祖善。称它为中国第一个面向海洋经济的国家级开发区。

位于中国东部海岸线连接点的舟山群岛拥有理想的位置、有利的海洋资源和产业优势。

吕省长指出，舟山新区将为浙江——中国长三角最重要的制造业引擎之一——注入新活力，同时助力中国海洋经济发展和区域发展总体战略的部署。

### National importance

The blueprint for the Zhoushan new area got approval from the State Council in less than 18 months, while the previous one, the Liangjiang New Area, took two years. The contrast reflects the imperative need for China to shift focus from its populous land to the sea for future growth, said Yi Peng, a researcher on China's regional economy at Peking University, in an article for *China Business Journal*.

China now has only 280,000 square km available for future industrial development, or 3 percent of its total land area, said a development plan of national major functional regions released by the State Council in June 2011. In contrast, China has a vast sea of abundance that stands at more than 3 million square km.

The State Council on March 1, 2011 approved the development plan of Zhejiang Marine Economic Zone, of which the Zhoushan new area is a key component. Previous to that, it approved a similar plan on the Shandong Peninsula on the north coast on January 4, 2011 and will have a third one in Guangdong Province on the south coast.

"By then, China will rely on the three demonstration zones to implement its national strategy of building up a competent marine economy," Yi said.

Industrial output of Zhejiang's marine sector stood at 280.9 billion yuan (\$43.2 billion) in 2009. The demonstration zone is expected to yield 700 billion yuan (\$107.7 billion) by 2015, accounting for 16 percent of Zhejiang's GDP and 15 percent of national marine industrial output, according to the blueprint.

And Guangdong, China's manufacturing hub, is also

### 国家级重要性

舟山新区发展蓝图在不到 18 个月的时间就获得了国务院批准，而在这之前的两江新区的获批则花了两年的时间。这样的对比反映了中国的未来增长迫切需要将重点从人口稠密的陆地转向海洋，这是北京大学中国区域经济学研究员易鹏在《中国商业杂志》的一篇文章中指出的。

根据 2011 年 6 月国务院公布的国家主体功能区的一份开发计划，中国可用于未来工业开发的土地只剩 28 万平方千米，相当于国土总面积的 3%。相比之下，中国拥有超过 300 万平方千米的广阔海洋。

2011 年 3 月 1 日国务院批准了浙江海洋经济区的开发计划，其中舟山新区是其关键组成部分。在这之前，在 2011 年 1 月 4 日，国家在山东半岛的北部海岸批准了一个类似的计划，并且在未来还将在南部沿海的广东省批准设立第三个类似的开发区。

易鹏说：“届时，中国将依靠三个示范区实施其建立强大海洋经济国家的战略。”

根据蓝图，浙江的海洋工业产值在 2009 年达到 2809 亿元(432 亿美元)。预计示范区的产值到 2015 年将达到 7000 亿元(1077 亿美元)，占浙江国内生产总值的 16%，占全国海洋工业总产值的 15%。国家发展和改革委员会主管地区



eyeing at a similar project to push forward its efforts of economic restructuring. At present, the marine sector contributes to nearly 20 percent of Guangzhou's GDP, said Fan Hengshan, Director of the Regional Economy Division under the National Development and Reform Commission.

### **The winner**

Zhoushan sets itself apart from competitors as it strives to achieve the national title of marine economy demonstration area, said Lu. With a population of 1 million, Zhoushan is China's only county-level administrative city established on a series of islands. With a land area of 1,440 square km, it covers 20,800 square km of inland sea.

"Location is the archipelago's unique advantage when it comes to developing the marine economy, because it marks the shortest route to the ocean within China's territory," Lu said.

As to its rich marine resources, the archipelago boasts a 280-km-long deep water coastline, taking up 18.4 percent of the country's total. Of the total, more than 100 km run deeper than 20 meters, which is ideal for Zhejiang to forge a large port comparable to Shanghai. In addition, Zhejiang has nearly 3,000 islands, which account for 40 percent of China's total.

The third advantage lies with Zhoushan's full-dimension marine industry supported by port logistics, coastal industries, marine tourism and fisheries, which stands at 68 percent of its GDP, Lu said.

Zhoushan is China's largest fishery production and processing base and largest fishing product exporter. And the merger between the ports at Zhoushan and Ningbo of Zhejiang turned Ningbo-Zhoushan Port into

经济司司长范恒山指出，作为中国制造业中心的广东，也在计划一个类似的项目，以努力推进其经济体制改革。目前，海洋产业占了广州国内生产总值的近20%。

### **竞争优势**

吕省长说，舟山在努力建设国家级海洋经济示范区的过程中拥有区别于竞争对手的特色。拥有一百万人口的舟山是中国唯一建造在一系列岛屿上的县级市。它占地面积为1440平方千米，内陆海面积达到20800平方千米。

吕省长说：“谈到发展海洋经济，位置是舟山群岛的独特优势，因为它是中国境内入海的最短的路线。”

在丰富的海洋资源方面，舟山群岛拥有280千米长的深水海岸线，占全国总量的18.4%。其中，超过100千米海岸线的深度超过了20米，这提供了在浙江建立像上海那样的大型港口的理想条件。此外，浙江拥有近3000个岛屿，占中国总岛屿数的40%。

吕省长指出，第三个优势在于舟山海洋产业的全方位支持，包括港口物流、沿海工业、海洋旅游业和渔业，占了其国内生产总值的68%。

吕省长说，舟山是中国最大的渔业生产加工基地和最大的渔产品出口基地。浙江在舟山和宁波两个港口合并之后，宁波—舟山港

one of the world's largest in terms of throughput, which reached 630 million tons last year, said Lu.

### The blueprint

With these advantages, the new area will be fostered into a trade center for storing, transporting and processing bulk commodities. It will become an important gateway on the eastern seaboard, a comprehensive demonstration zone for island protection and development, a modern ocean industrial base, and a pilot region for integrating land and sea resources, according to the development plan.

将成为世界上吞吐量最大的港口, 去年其吞吐量达到了 6.3 亿吨。

### 蓝图

有了这些优势, 新区将被打造成一个储存、运输和加工大宗商品的贸易中心。根据开发计划, 它将成为东部沿海地区的重要门户、海岛保护与发展的综合示范区、现代海洋产业基地和海陆资源综合利用试点区域。

## Words & Phrases

maritime *adj.* 海洋的, 海事的

cluster ['klʌstə] *n.* (产业) 集群

capitalise on 利用

clientele [kli:'nɛl] *n.* 客户

finance [faɪ'næns] *n.* 金融

insurance [in'sʊərəns] *n.* 保险

legal ['li:gəl] *adj.* 法律的

arbitration [ˌɑ:brɪ'treɪʃən] *n.* 仲裁

shipping tonnage 船舶吨位

container throughput 集装箱吞吐量

gross tonnes (GTs) 总吨位

TEU 标箱, 标准集装箱 (abbr. twenty-foot equivalent unit)

bunker ['bʌŋkə] *n.* 油槽船

bunkering port 加油港

The Singapore Registry of Ships (SRS) 新加坡船舶注册局

in excess of 超过

hub [hʌb] *n.* 枢纽

Floating Production Storage and Offloading (FPSO) units, 浮式生产储卸油 (FPSO) 装置

vessel conversion 船舶改装

jack-up rig 自升式钻井平台

premier ['premiə] *adj.* 首屈一指的





freight and energy derivative 货物和能源衍生品

clearing facility] 结算行

biennial [baɪˈɛniəl] *adj.* 两年一次的 (注: biannual [baɪˈænjʊəl] *adj.* 一年两次的)

shipbroking ['ʃɪpbroʊkɪŋ] *n.* 船舶经纪

chartering ['tʃɑ:tərɪŋ] *n.* 租赁

archipelago [ˌɑ:kɪˈpeləɡəʊ] *n.* 群岛

peninsula [prɪˈnɪnsjələ] *n.* 半岛

## Terms

**1. United Nations Conference on Trade and Development (UNCTAD)** [联合国贸易和发展会议(简称“贸发会议”)]：It was established in 1964 as a permanent intergovernmental body. It is the principal organ of the United Nations General Assembly dealing with trade, investment, and development issues. The organization's goals are to maximize the trade, investment and development opportunities of developing countries and assist them in their efforts to integrate into the world economy on an equitable basis.

它是成立于1964年的常设政府间机构，是联合国大会处理贸易、投资和发展问题的主要机构。该组织的目标是最大限度地为发展中国家提供贸易、投资和发展机会，协助它们在公平的基础上融入世界经济。

**2. FPSO (Floating Production Storage and Offloading)**[浮式生产储卸油装置(FPSO)]: The FPSO is a floating, production, storage and offloading ship-shaped vessel. Production facilities are mounted on raised supports above the vessel deck. Reservoir fluids pass from subsea production wells, via flowlines and risers, up into the turret and then to the production facilities. Produced oil is stored in the vessel cargo tanks and periodically offloaded onto a shuttle tanker via a loading hose.

该系统是一个浮动的生产、储存和卸载油的船形装置。生产设备安装在船只甲板上升起的支架上。储层流体从海底生产井流出，经过油管和水管上升到炮塔，最后到生产设施。产出的石油储存在船的货舱并定期输油软管输送到穿梭油轮。

**3. Private Equity Arrangers**(私募股权基金): Private Equity is equity capital that is not quoted on a public exchange. Private equity consists of investors and funds that make investments directly into private companies or conduct buyouts of public companies that result in a delisting of public equity. Capital for private equity is raised from retail and institutional investors, and can be used to fund new technologies, expand working capital within an owned company, make acquisitions, or to strengthen a balance sheet.

私募股权资本不在公众交易所报价。私募股权基金的投资者和资金直接投资于私人企业或对市场企业进行收购，迫使公众股权退市。私募股权的资本筹措主要是通过零售和机

构投资者，可用于投资新技术、扩大自有企业的营运资本、收购或者强化资产负债表。

**4. Lloyd's Syndicates**(劳埃德辛迪加): Lloyd's is the world's specialist insurance market. Unlike many other insurance brands, Lloyd's is not a company; it's a market where members join together as syndicates to insure risks. Much of Lloyd's business works by subscription, where more than one syndicate takes a share of the same risk. Business is conducted face-to-face between brokers and underwriters in the Underwriting Room.

劳埃德是世界一流的专业保险市场。与许多其他的保险品牌不同，劳埃德不是一个公司，而是一个成员以辛迪加的身份加入共同担保风险的市场。劳埃德的很多业务都是以认购的方式操作，由多个辛迪加共担同一风险。业务在承销室由经纪人和保险商面谈商议决定。

**5. the SGX AsiaClear**(新交所亚洲结算行): Singapore Exchange Limited(SGX) was inaugurated on 1 December 1999, following the merger of two established and well-respected financial institutions — the Stock Exchange of Singapore (SES) and the Singapore International Monetary Exchange (SIMEX). The SGX AsiaClear Facility, Asia's first and only OTC (Over the Counter) clearing platform, provides immediate 20-hour central counterparty clearing for OTC oil swaps and forward freight agreements.

新加坡交易所有限公司成立于1999年12月1日，由两家有着良好声誉的金融机构——新加坡证券交易所(SES)和新加坡国际金融交易所(SIMEX)合并后建立。新交所亚洲结算行是亚洲第一个也是唯一一个场外交易(OTC)结算平台，为场外石油掉期和远期运费协议提供即时20小时中央对手方结算。

**6. Forward Freight Agreements (FFA)** [远期运费协议(FFA)]: A forward freight agreement (FFA) is a financial forward contract that allows ship owners, charterers and speculators to hedge against the volatility of freight rates. It gives the contract owner the right to buy and sell the price of freight for future dates. FFAs are built on an index composed of a shipping route for tanker or a basket of routes for dry bulk. Contracts are traded “over the counter” on a principal-to-principal basis and can be cleared through a clearing house.

远期运费协议是一种金融远期合约，允许船舶所有人、承租人和投机者对冲运价波动率。它给予合同所有人购买和出售未来日期的运价的权利。远期运费协议是基于一个油轮运输路线或一篮子干散货路线组成的指标之上，合约由买卖双方直接进行场外交易，在结算所进行结算。

## Notes

1. The port of Singapore remains the world's busiest in terms of shipping tonnage and container throughput. In 2006, total vessel arrivals in terms of shipping tonnage stood at 1.4 billion gross tonnes (GTs) and container throughput was a record 27.9 million TEUs.



从船舶吨位和集装箱吞吐量来看,新加坡港一直是世界上最繁忙的港口。2006年,其总船只抵港船舶吨位达到了14亿个总吨位(GT),集装箱吞吐量达到了创纪录的2790万标箱(TEU)。“in terms of”意为“依据;按照;在……方面”。

2. The Zhoushan Archipelago, located at the juncture of China's eastern coastline, has an ideal location, marine resources and industrial strengths working to its advantage. 位于中国东部海岸线连接点的舟山群岛拥有理想的位置、有利的海洋资源和产业优势。“at the juncture of”意为“在……的连接点、结合点”;“working to its advantage”意为“有力的,加强优势的”。
3. As to its rich marine resources, the archipelago boasts a 280-km-long deep water coastline, taking up 18.4 percent of the country's total. Of the total, more than 100 km run deeper than 20 meters, which is ideal for Zhejiang to forge a large port comparable to Shanghai. 在丰富的海洋资源方面,舟山群岛拥有280千米长的深水海岸线,占全国总量的18.4%。其中,超过100千米海岸线的深度超过了20米,这提供了在浙江建立像上海那样的大型港口的理想条件。“as to”意为“在……方面”,“take up”意为“占去”,“comparable to”意为“比得上,犹如,和……相当”。

## Exercises

I. Comprehension: Choose the best answer for each of the following according to the text.

1. \_\_\_\_\_ is China's fourth development area to receive state-level policy support to allocate resources and attract investment.  
A. The Zhoushan Archipelago New Area of Zhejiang  
B. The Pudong New Area of Shanghai  
C. The Binhai New Area of Tianjin  
D. The Liangjiang New Area of Chongqing
2. The blueprint for the Zhoushan new area got approval from the State Council in less than \_\_\_\_\_ months, while the previous one, the Liangjiang New Area, took two years.  
A. 12                      B. 18                      C. 20                      D. 10
3. How much sea area is available in China for future industrial development?  
A. 280,000 square km                      B. 2 million square km  
C. 1 million square km                      D. 3 million square km
4. \_\_\_\_\_ is the archipelago's unique advantage when it comes to developing the marine economy  
A. Location              B. Industry              C. Transportation              D. Population

5. According to the article, \_\_\_\_\_ is China's largest fishery production and processing base and largest fishing product exporter.

- A. Guangzhou      B. Qingdao      C. Ningbo      D. Zhoushan

II. Translate the following Chinese phrases into English.

1. 海洋经济
2. 区域发展
3. 渔业生产加工基地
4. 港口物流
5. 大宗商品
6. 海岛保护与发展
7. 运营基地
8. 亚洲航运枢纽
9. 岸上海事服务
10. 精品航运

III. Translate the following English Sentences into Chinese.

1. Globally renowned for its reliable and convenient range of comprehensive marine services, Singapore is a one-stop marine centre for shipowners, managers and agents around the world.

2. The cluster comprises more than 5,000 maritime establishments in the following sectors: (a) Shipping and Port related sectors; (b) Offshore, Shipbuilding and Repair; and (c) Maritime Services such as shipping finance, marine insurance and maritime legal and arbitration services.

3. Flagship events such as Sea Asia and Maritime Week have served to enhance the vibrancy of Singapore's maritime industry. A biennial maritime conference-cum-exhibition, the inaugural Sea Asia was launched in Apr 2007 in Singapore and attracted over 7,000 participants from 42 countries.

4. It will become an important gateway on the eastern seaboard, a comprehensive demonstration zone for island protection and development, a modern ocean industrial base, and a pilot region for integrating land and sea resources.

5. As to its rich marine resources, the archipelago boasts a 280-km-long deep water coastline, taking up 18.4 percent of the country's total.