

China to build undersea lab



China's deep-sea manned submersible Jiaolong conducts scientific exploration in the southwestern Indian Ocean in December.[Photo/Xinhua]

China will build an undersea lab that can contain dozens of people. "China's manned deep-sea submersible Jiaolong can hold a few people and stay under water for 12 hours. Our future deep-sea lab station can stay under the sea for half a month or even months," said Yan Kai, an NPC deputy and director of National Key Lab for Deep-Sea Manned Equipment.

Wan Gang, minister of Ministry of Science and Technology of China, said that deep-sea lab station was listed as a key project in China's Science and Technology Innovations 2030 Project during a national science and technology conference in January.

According to Yan Kai, the difficulty of building a deep-sea lab station is almost the same as building a space station. Yan said that scientists can cultivate and research deep-sea creatures, explore deep-sea mineral, oil and gas resources and research the genes of deep-sea creatures for medical use.

Yan said the deep-sea lab station will use fuel cell or nuclear power because it will stay under the sea for a long time.

The material used for the deep-sea lab station is a major technical problem. "The submarine pressure in 1,000 meters deep sea is 100 times than the pressure of the atmosphere, which means even a tiny nail will bear the

pressure of 100 kilograms," said Yan.

Therefore, special material with light weight and high pressure resistance will be a must if the deep-sea lab station needs to stay under 1,000 meters of water. Moreover, the problems of deep-sea navigation and communication, precise control and manipulation in lab station also need to be accounted for.