Current Situation and Development of the Housing Construction in China

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Housing, is a crucial social issue that any country of the world has to face up to. Therefore, "Adequate shelter for all" has been raised up as a strategic target at the second UN Conference on Human Settlements (Habitat II). As the most populous country in the world, China has always made great efforts in improving Chinese residential environment and increasing people's residential standards.

I Current Situation of the Housing Construction in China

Since new China was founded in 1949, especially since China adopted the "reform and opening up" policy in 1978, great changes have taken place in China. The national economy has been developed by leaps and bounds, and people's living standard has been increased rapidly as well. Chinese government has taken a series of reform measures in the housing sector, which has strongly promoted the development of housing construction and has achieved an unprecedented success in the construction of the urban and rural housing in China. For the time being, the total amount of the annual urban and rural housing has reached 1 billion square meters, while investment on housing construction takes 26.6% of which on the total social fixed assets. During the period of 19 years (from 1979 to 1997), up to 15 billion square meters of urban and rural housing have been built nation wide, where 3.15 billion of urban housing, nearly half of residents have moved to their new housing. The urban residential floor area per capita gets up to 8.8 square meters by the end of 1997 compared with 3.5 square meters in 1978 and the usable floor area per capita reaches 12.3 square meters in 1997. The ratio of units goes up from 24% in 1985 to 55% in 1995. Along with the increasing of residential areas, the level of housing planning and design, the quality of housing construction, the construction of public facilities, as well as the standard of residential environment and property management have also been enhanced.

Even though considerable achievements have been made in the sector of housing construction, housing standard in China, no matter from usable floor area per capita, quality of residential environment or standard of housing industrialization is rather low, comparing with the developed countries in the world. The housing construction in China still lags behind at an extensive developing stage.

II Necessity and Feasibility of the Housing Development in China

1 Necessity of the housing development in China

Statistics shows that for the worldwide the economical development period during which per capita GNP gets to 300~500 US\$, is also the time when housing industry expands rapidly, so as to upgrade the whole national economy structure, and constitute the pillar industry of the national economy. Year 1997 just locates in that period due to its 5700 RMB, i.e. 690 US\$ or per capita GNP.

Housing construction had played an important role during the process of modernization and the period featuring the accelerated economy development experienced by developed countries. According to the UN statistics collected from more than 70 countries, fixed assets formed by investment on housing construction take $20 \sim 30\%$ of the total social fixed assets, while $30 \sim 50\%$ of fixed assets of infrastructure constructions. During the economy take-off period in developed countries, the proportion of investment on housing and real estate to that total on social economy are : 42% in UK, 47.6% in German, 42% in France, while only 26.6% in 1996's China.

2 Feasibility of the housing development in China

On July 3, 1998, the State Council issued a document titled "Further deepening the reform of the urban and rural housing systems and speeding up the housing construction". Depending on that document, house will no longer be granted as a welfare but a merchandise. This not only ends up the history of housing welfare followed by urban employees for several ten years, but also will definitely promote the development of the housing industrialization. House finally breaks into this society as costly and durable merchandise.

- Large potential demands on housing and promising future of marketing
 China is the country with the largest population in the world, and people's demand for housing is
 enormous. After solving the food and clothing problems, house becomes the most costly and prominent
 merchandise for the Chinese people.
- Policies on housing reforms issued by the state has created a favorable condition for speeding up urban housing construction.

By selling the state-owned houses and building up commercial houses such as "the affordable housing", more and more people will be able to have their own houses, personal purchase will become the main body of the housing market.

Incentive effect out of housing construction

Based on the mathematical model provided by the World Bank, incentive effect out of housing construction in China may preliminarily estimated as follows: 1470~220 RMB of demands for related industries is created by injecting every 100 RMB housing fund, 130~150 RMB of sales of other products is activated by selling every 100 RMB housing, Further more, the proportion that annual consumption of construction material used for urban and rural housing takes from the national total are: 14% of steel; 20% of limber, 47% of cement, and 40% of glass.

• Financing, efficient support to the housing development

The People's Bank of China together with some departments of the State Council have taken a series of effective measures in order to suit the development of the housing construction, to further improve the housing mortgage system, to actively support the housing construction and consumption, and to promote the system reforms on urban and rural housing.

IIIObjectives of the Housing Construction in China

According to the spirit of "The principle of the 9th five-year plan and long-term objectives in 2010 for national economy and social development of the P.R. China", the objectives of the urban and rural housing construction in China are as following:

	The 8th Five-year Plan	The 9 th Five-year Plan	Objectives of Year 2000 of MOC	Long term Objectives of Year 2000-2010		
Total Housing Construction Area (billion sq. m.)	1.03	1.2	1.5	3.35		
Housing Construction Area per year (million sq. m.)	210	240	300	330		
Ratio of Units (%)	55	70	80	85		

Presently, the Chinese people pay more attention not only to the space of the house, but also to its quality. After issuing the new policy on housing reforms, the ordinary people have an increasing demand for the housing quality. It is very important to transfer the housing development method from an extensive way to an intensive one. The most effective way that can significantly improve the housing quality is to introduce advanced science and technology into the housing industry.

Housing industry used to be characterized with welfare distribution and planning economy. Different departments such as the housing design, construction, materials, products, and management have been separated for a long period. After 10 years of reforming, however, certain systems on planning, designing, and managing have come into being. Since 1987, a lot of experiences have been accumulated from hundreds of pilot & demonstration projects, which has constituted a solid foundation for the housing industry in China. This period is considered as the first stage of the housing industry.

With the two crucial transfer of the national economy, the Chinese housing industry moved upto the second stage. The dominated characters are that houses become a merchandize instead of a welfare and housing industry will play a more and more important role in the economic stage of China. Therefore, under this new situation, we should adopt our thinking and planning method to meet the requirement of the international housing tide, and consequently drag all related industries to promote the sustainable development on housing and improve people's living standards of China.

IV The Year 2000 Scientific and Technological Industrial Project for the Affordable Housing in Urban and Rural Area (the Affordable Housing Project)

In order to establish the Chinese housing industry which is suitable for the national economic and social development at the beginning of the 21 century, to promote the development of the national economy, to lead to realize the residential standards at the beginning of the 21 century, and largely improve the residential environment and living quality of the urban and rural residents, the Affordable Housing Project was first carried out in March 1995 initiated by the State Science and Technology Committee, the Ministry of

Construction, and other ministries and bureaus concerned. The project was the unique double-key project in the state "9th Five-year Plan", namely one of the Key of the Priority Projects as well as one of the State Key Scientific and Technological Industrial Projects in China. The Affordable Housing Project has manifested to be a systematic project which aims at taking the science and technology as the guidance, promoting the integrity of the housing science & technology with the housing construction, and to motivate the housing industrialization in China.

A Implementation plan

1 Guideline

- Utilizing the science and technology as its support, constructing the affordable residential zones to provide the demonstration for the residential houses in the 21st century;
- Strengthening the serialized development, intensified production, commercialized supply and the socialized service of the housing products and components;
- Promoting the housing industrialization process in China.

2 General objectives

- aspects, 24 items specific key technologies (including planning and design, structure systems energy efficiency, environmental friendship and intelligent housing unites)
- groups, 38 varieties new building materials and products
- demonstration zones with total construction areas of 6-10 million square meters.

3 Main contents

- Key technologies research and development
- Products development and industrialization
- Industrialization policies
- Residential demonstration zones

4 Characteristics

- Future oriented
- Science and technology oriented
- The whole process oriented
- Practice oriented
- Market oriented

B Implementation Process

1 Planning and design

Great efforts have been made to explore the new planning and design idea and methods for residential housing according to the rapid social and economic development.

- To put forward the idea of "Cilized Residential Environment" for the future residential
 zones
 and pay more attention to the community construction.
- Implementing the principle of "Sustainable Development"
- Stress on property management from the beginning stage of planning and design

2 Products development and industrialization

Since October 1994, 4 technical evaluation and recommendation on housing products and components have been organized. 1211 kinds of housing products from 932 enterprises have applied for evaluation and recommendation, and 708 kinds of products were recommended accounting for 58% of the total products. The products and components cover 9 fields: kitchen equipment and products, sanitary equipment and products, door & window, wall materials, pipelines, heating & conditioning, electric equipment, water-proof and thermal insulation building material as well as decoration materials.

3 Residential demonstration zones

During the past three years, 78 Affordable Residential Demonstration Zones have been approved by the Ministry of Construction, including 62 demonstration zones in urban area and 16 in rural area. 59 designing plans of the demonstration zones are excellent accounting for 75.6% and 19 designing plans demonstration zones are passed, accounting for 24.4%. At present, 35 demonstration zones have started construction with 2.46 million square meters. 11 demonstration zones have formed large scales and the construction area have reached 1.56 million square meters. 17 demonstration zones have begun selling houses and the future market is promising.

4 Industrialization polices

The program of the Trans-century Housing Industrialization Policy on China has finished the framework at the end of 1996, which has raised up the developing objectives and the overall guidelines of the housing industrialization in China, and has offered some key proposals emphasizing on housing construction field, housing market, housing pricing, housing financing, housing technologies, housing quality, property management, housing restructuring as well as the housing industrialization organization.

The implementation of the Affordable Housing Project have played a favorable role in promoting the housing industrialization, improving the housing function and quality, guiding housing consumption, and fulfill people's increasing demands for housing. Consequently, in the nationwide this project will further enhance the efficiency and benefit of the housing industry, foster new economic growth rate and promote the national economy and social development.

A State Housing Demonstration Project will be initiated soon. Guided by the advanced science and technology, this project is based on certain housing demonstration areas to integrate the main systems of the housing industry. Many pillar enterprises and groups will be invited to participate this project to accelerate the development of the housing industry in China.

China government is looking forward to chancing the mutual understanding and the international cooperation to improve our national housing construction level in the fields of the housing planning & design, the licensing system on housing products and components, the evaluation system on housing natures and functions, the technology services as well as the joint investment on housing construction.

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