

Analysis on the Status Quo and Construction Problems of Domestic Urban Civil Air Defense Engineering System

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- **Key words**: Urban civil air defense, engineering city, development city, people urban construction, functional departments
- Abstract: As the urbanization process in developing countries continues to accelerate, although my country has achieved significant results in planning and construction, there are still many problems. For example, the rate of urban green space decreases with the continuous increase of urban buildings. Therefore, the domestic urban underground civil air defense Engineering construction is in a very important position at this stage, and our development goals must be shifted from above ground to underground. This article analyzes the general situation of domestic civil air defense engineering system, expounds the current situation and existing problems of my country's urban civil air defense engineering system, which has an important influence on the development of my country's cities. Functional departments must take into account the various functions of civil air defense projects and put people's safety first. At the same time, firefighters should also improve their professionalism, leadership and organizational skills, and be able to evacuate people in time when encountering danger and arrange them to take refuge in designated locations. The technicians in the relevant departments in the city need to use scientific and technological means to mix the urban network system in series and parallel, so that the various structures of the urban network system are unified and interact with each other. When a disaster strikes, it can protect the safety of the people and reduce the economic loss of the city. Reduce to the lowest level to maximize benefits.

1. RESEARCH BACKGROUND AND MEANING

1.1 Research background

Since London, a developed country, built the world's first subway in 1863, the construction and development of underground space in foreign countries has continued; my country formulated the "long-term preparation and key construction" policy in 1954 and only considered the need for combat readiness; it was determined in 1990 The policy of "long-term adherence to peacetime and wartime integration, comprehensive planning, and key construction" is proposed, and "vigorously develop peacetime and wartime integration, and maximize social and economic benefits under the

premise of ensuring the benefits of combat readiness." With the continuous acceleration of social urbanization in developed and developing countries, the number of civil air defense projects in cities has also increased. Although it is in a peaceful age, relevant units of functional departments should also pay attention to and do a good job in urbanization. The preparations for the combat readiness of civil air defense projects, and the underground air defense design should also be closely linked to the lifeline of the city, and it should also be integrated and developed with urban infrastructure, transportation, and economic construction.

When the war comes, the underground civil air defense project will more effectively avoid the enemy's surprise attack, preserve combat power, and become an important guarantee for safeguarding the safety of people's lives and property, laying a good foundation for the entire city to proceed in a more orderly manner.

1.2 Research purpose and significance

With the continuous acceleration of social urbanization in developing countries, the number of civil air defense projects in cities is increasing. Although it is in a peaceful age, we must also pay attention to and prepare for civil air defense projects in cities. At the same time, underground The civil air defense design of China should also be closely connected with the lifeline of the city, and it should also be integrated and developed with urban infrastructure, transportation, and economic construction. Looking at the overall situation, although my country's urban civil air defense engineering construction has achieved significant results, there are still many problems in urban planning and construction, publicity, and civic awareness.

This research discusses the actual case study and social value of domestic urban civil air defense engineering system, expounds the shortcomings of domestic urban civil air defense system construction, and then comes up with an effective and feasible method to solve the Chinese urban civil air defense problems.

1.3 Research methods

When the war came, due to the fragility of the urban network system, the urban economic chain and power supply, water supply and heating systems were destroyed. Therefore, for the urban network system that affects the whole body, the technicians of the relevant departments in the city use scientific and technological means to merge the various serial systems in the city. Only by assuming their respective roles and connecting with each other can the damage to the city's interests be minimized in the war.

Smart civil air defense is not limited to the self-improvement of civil air defense systems, but must adapt to urban development, focus on the future, take information technology as the forerunner, use scientific and technological means to decompose intelligent civil air defense plans and project arrangements, and develop new ideas in specific project arrangements. Combining the old projects with corresponding adjustments and improvements, and combining them with new projects, intelligent air defense needs to stand firm, improve core functions, form a system of its own, and reduce dependence on the outside world.

This research is conducted by consulting domestic journal articles, research reports, and related policies and cultures of provinces and cities on civil air defense and construction in China, sorting them, and summarizing them. And combined with related theories. Analyze the problems existing in the construction of civil air defense engineering systems in domestic cities, and propose corresponding solutions.

2. RESEARCH CONTENT

2.1 Research methods

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2.2 Domestic research trends

Since the 1950s, due to the unstable internal environment of the country, cities in our country have begun to build air defense projects. The vast majority of air defense projects are designed and built for combat readiness, so its function and value will appear to be relatively simple. At the same time, there is a disconnect between air defense projects and urban construction, and they have not been used to the maximum.

After 1978, the original air defense combat readiness function of my country's urban civil air defense engineering has been further expanded, and the concept of building a civil air defense engineering system that combines peacetime and warfare has been put forward. The value and commercial value of urban civil air defense projects in wars have also been further effectively utilized. The relevant data shows that the development goals of Qingdao's underground air defense projects are from the first stage to 2020, which is the short-term and long-term goals of this plan. It is to improve the efficiency of land use, expand the capacity of urban space, and establish an

urban safety guarantee system; the second phase to 2050 is the long-term vision of this plan. The goal is to fully realize the underground urban infrastructure and greatly improve the quality of urban life. There are also the Beijing Metro Line 2 platform, the underground parking lot of Shanghai People's Square, the underground shopping mall of Zhengzhou Railway Station Square, the underground city of Shenyang Beixin Passenger Station and Chengdu Xiyuheyan Street. The development of the commercial use value of these civil air defense projects has brought investors Economic costs have also brought social benefits to relevant functional units.

3. UNREASONABLE PLANNING OF URBAN CIVIL AIR DEFENSE ENGINEERING SYSTEM

China is now in an era of peace, the level of the city is constantly developing, the economic foundation is also very solid, and it has also had a very beneficial impact on the superstructure. People nowadays have increasingly blurred the concept of urban civil air defense engineering systems. Most people do not have the awareness of civil air defense at all. The relevant administrative agencies in some large cities and some small cities are relatively unfamiliar with the concept of urban civil air defense, so the emphasis on urban civil air defense is also very low. The theories developed by some urban civil air defense projects are out of line. In fact, it includes the phenomenon of unreasonable planning, insufficient funds for small-scale urban planning, and the inconsistent pace of civil air defense system planning and urban overall planning.3.2. Business operation capability issues

Village functions are relatively closed, businesses are showing signs of decline, business layout is dominated by low-end businesses, and timehonored brands lack effective promotion. At this stage, Cuiwei Village is facing the problem of demolition and reconstruction. Through interviews and investigations, it is found that the businesses along the street are still in operation, and the textile industry still exists, serving the people of Cuiwei Village. In the mid-term, with the continuous entry of businesses, shop rents have risen too fast. Most of the shops are service-oriented, including barber shops, restaurants, daily necessities, supermarkets, acupuncture clinics, dental clinics, etc., and there are many repeated shops. The phenomenon of homogeneity has appeared because the government did not screen the shops that settled in, and because merchants settled in for the urgent need for profit, there is a lot of plagiarism and competition, the characteristics of the shops are not obvious, and the cultural and creative industry is changing It is not obvious, and there is little room for growth, and there are no diversified business forms such as advertising companies and wedding photography companies entering Cuiwei Village.

3.1 Unreasonable planning of urban civil air defense engineering system

The civil air defense project in a city is a relatively large-scale project in the construction of urban infrastructure, because it involves a wide range of planning, small is closely connected with the lifeline of the city itself, and large is also closely connected with neighboring cities. Therefore, it is an important part of the urban planning infrastructure construction and maintenance that belongs to a branch of the entire urban planning and design.

The problem facing our country now is that many cities generally lack experience in the construction and maintenance of urban infrastructure and planners have not considered the important impact of future urban development on the urban civil air defense engineering system. The urban civil air defense projects that have been built are repaired and repaired, but there is no planning and design for long-term maintenance programs. There are even some cities that do not combine theory with reality in the planning of civil air defense infrastructure construction, resulting in unreasonable phenomena in the planning of civil air defense projects in some cities. Civil air defense projects between adjacent cities appear to be mutually opposed, contradictory and inconsistent. The phenomenon caused by the new urban civil air defense engineering system pipeline conflicts with the old urban air defense engineering system pipeline, and ultimately requires re-planning and design, wasting a lot of manpower, material and financial resources. In the process of urban planning, some cities did not carry out peace and war unification, combined peace and war, and the ground and underground passages were not connected, or there was a development trend of independent government, resulting in serious disconnection. This is also due to the relevant urban planning departments. There were unreasonable phenomena in the planning, which were not resolved at the time. The responsible persons of some construction units were negligent in the review stage, and did not further think about the civil air defense plan planned by the planning company, and directly submitted for approval, which eventually led to the construction. Lots of questions.

3.2 Lack of funds for the construction of urban civil air defense engineering systems

Due to the very wide construction scope, huge amount of construction, and very long time-consuming construction of civil air defense projects in cities, the cost recovery period of the construction is very long, which makes investors feel that they have not benefited in a short period of time. Some investors are unwilling to invest in the construction of urban civil air defense projects. As a result, there are a lot of difficulties in raising funds for the construction. In our country, the fundraising of urban civil air defense construction is led and undertaken by functional units. Funds are allocated for construction. For large cities, their overall development speed is fast, urbanization is also proceeding early, and the economic growth rate is much faster than that of ordinary cities. Therefore, the pressure on urban civil air defense engineering construction investment is relatively small.

But for small cities, because the process of urbanization is relatively late, compared with large cities, the economic growth rate is also slower, and there are many problems in raising funds, even infrastructure. Raising the cost of repairs and maintenance has also caused great difficulties, not to mention the long-term planning of the city. Looking for relevant design companies and planning institutes to plan the plans for the future urban air defense facilities also requires a sum of funds. Different cities in the same country are out of sync, unbalanced, and inconsistent due to the speed of development. As a result, the construction of civil air defense engineering systems in different cities is unsynchronized, ununified due to the shortage of funds, and the development is uneven situation.

3.3 Functional units are not fully aware of the construction of urban civil air defense projects, and more and more people are not aware of it

Some cities lack the awareness of the construction and maintenance of the urban civil air defense engineering system, and the relevant departments do not have a comprehensive understanding. They believe that we are now in a peaceful age, and there will be neither war nor natural disasters. The maintenance and construction of the system and the planning of the impact of urban development on civil air defense in the next few decades, and the subsequent review and approval of the design plan also require a large amount of funds. Therefore, functional departments in some small cities feel that there is no need to do so. Waste of funds In these aspects, maintenance and construction also require a lot of time, manpower, material resources and financial resources. These cities do not need to build and maintain civil air defense projects, and even some cities do not feel that civil air defense projects have any positive impact on the city.

With the acceleration of my country's urbanization process, the density of buildings on the ground has gradually increased. They have not considered that the ground and the underground are equally important. They try to save the space on the ground to develop green space and vigorously develop the underground space, even if it is a small city. With the passage of time, when the population of big cities becomes saturated, the pressure of transportation and social economy will gradually increase, and people related to big cities will also move to small cities for development, which will have an impact on small cities. That is, the population of small cities will gradually increase, so administrative departments must also consider the future development of small cities, and make better use of civil air defense projects to solve many difficult problems in the future.

In addition, more and more people in the city have a low awareness of being attributed to the urban air defense system. Most people living in this city do not know where the city's air defense system is or which facilities belong to the city's air defense system. They are in underground passages. Littering, urinating and urinating at will, and found that some underground infrastructures are aging and have not been reported to relevant departments. It is not a matter of hanging up high. Some want to reflect but don't know what channels to report through, and even reflect that relevant departments do not have this. Consciousness to pay attention.

4. COUNTERMEASURES TO THE CIVIL AIR DEFENSE PROBLEMS IN DOMESTIC CITIES

4.1 Reasonably design and plan the design of urban civil air defense projects

The relevant areas of our country should rationally design and plan the construction plan of the urban civil air defense project. First, the air defense basement is assessed as unqualified. The construction unit should make rectification according to the opinions of the civil air defense department, and then report to the civil air defense department for re-inspection. Until qualified. Otherwise, the entire project may not be rated as an excellent project, may not be delivered for use, and may not apply for a real estate certificate.

Secondly, for future urban planning, corresponding planning plans should be formulated, and city research should be fully done to prevent conflicts between the urban civil air defense project and the neighboring city civil air defense project planning, and the theory should be combined with reality, and the urban civil air defense system planning should strive for Coordinate with the overall development pace of the city planning. Then the relevant staff in the urban civil air defense system planning must be strictly trained, and the designed construction drawings must be reviewed by professionals. During the review process, they must not be careless. The drawings must be accurately reviewed without a trace. During the verification process, the problematic drawings must be strictly returned and re-corrected. Unreasonable points found during the construction process must be corrected and perfected in a timely manner. When necessary, they must be reported to the relevant supervision unit for verification to ensure that there is nothing wrong.

4.2 Establish a commercial financing development system to attract more investment from developers, and at the same time achieve peace and war

Urban civil air defense engineering system planning must properly solve the problem of insufficient funds. In addition to government funding for large-scale confidential urban air defense projects, commercial financing systems should be established for other cities. In addition to modern civil air defense projects, attention must be paid to combat readiness. In addition to functions that can come in handy during a war, we must also pay attention to the use of the commercial value it brings to attract more investors to invest and strive for higher benefits.

For second- and third-tier cities that have a gap in the development status of first-tier cities or even cities that are not ranked, they can be appropriately reported to the provincial level, so that the provincial level can plan and deploy, and the problem of insufficient funds can also be applied to the higher level for investment. Developed cities can also give appropriate economic investment to second- and third-tier cities to promote the future development of second- and third-tier cities and some more backward cities.

At the same time, cities whose development status is not optimistic can also seek help from neighboring cities, do related trade exchanges, and strive to get closer to first-tier cities, so as to achieve a balanced, unified and synchronized development as soon as possible. Relevant cities are also working hard to make the civil air defense system in the city have the function of combining peace and war. Combination of peace and war refers to the software and hardware facilities of all aspects of civil air defense construction, which can be used in society during peacetime without affecting the ability of air defense. It can directly become a part of urban construction and economic construction, and produce good social and economic benefits. This kind of behavior based on combat readiness, focusing on peacetime, serving the society and benefiting the people, can only inspire the investment enthusiasm of people in the society if the civil air defense project is unified between peace and war. Ensure the unity of urban air defense and urban construction.

4.3 Strengthen the concept of urban air defense construction and encourage citizens to participate in urban air defense construction

For the lack of understanding of the urban civil air defense engineering system, we must first strengthen the concept of urban civil air defense construction. Only by strengthening the concept of urban civil air defense construction can the masses and officials of relevant agencies understand the importance of building and improving urban civil air defense.

The provincial party committee should also regularly convene relevant meetings on the construction of urban civil air defense, and lead the citylevel party members and cadres to realize the necessity of urban civil air defense construction and repair, so that the work of civil air defense construction can be promoted more effectively. Make a speech, let the leaders of the agency understand the ideas of the party members through the speech, and then convey to them the study guidance recommendations issued by the provincial party committee.

At the same time, let the personnel of the agencies and units increase the publicity of the civil air defense in the city, visit the citizens on the spot, and let the citizens better understand the role of the civil air defense in the war. Encourage them to report to the relevant departments in time when they find that the civil air defense system is damaged. The civil air defense department should not only conduct important publicity through newspapers and media and other social networking sites, but also publicize through public accounts, Weibo, etc., to spread the construction of urban civil air defense to various units and schools, and regularly communicate to the staff and the staff of the unit. The school's students are trained to strengthen their ideological awareness, and can also spread the urban civil air defense to various communities, train the residents of the community, and hold prize-winning questions and answers, so that people can gain knowledge of civil air defense at the same time.

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