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## **SAFETY FOR FIRE PREVENTION AND FIGHTING FOR BUSINESS COMBINED HOUSING, MANUFACTURING IN VIETNAM**

**Abstract.** Houses combining business and production in Vietnam in general and other countries in the world in particular are diverse and complex types of housing, and the process of living and living always has many potential risks leading to fire, explosion occurs. The article approaches on the basis of analyzing and clarifying the theory and practice of fire prevention and fighting safety for houses in combination with business and production in Vietnam today; from there, propose oriented solutions, exchange experiences to ensure fire prevention and fighting safety for this type of housing.

**Keywords:** Fire prevention and fighting safety; housing combined with business and production; Vietnam.

### **1. Make a problem**

Houses combining business and production are a type of fire and explosion that often occur and always account for a high proportion in Vietnam. According to statistics of the Fire and Rescue Police Department – Ministry of Public Security of Vietnam, from April 15, 2021 to November 15, 2021, there were 1,218 fires nationwide, killing 46 people died, 58 people were injured, property damage was estimated at 120.66 billion VND. Of which, there were 467/1,218 fires in households and houses in combination with business and production (accounting for 38.34%), killing 38 people, injuring 14 people, causing property damage 43, 68 billion dong [1]. Faced with that situation, the Ministry of Public Security of Vietnam has advised the Party, State and Government to issue leadership documents, direct and implement solutions and measures to ensure fire prevention and safety. fire fighting for this type of housing. However, in terms of theory and practice, fire prevention and fighting

for houses in combination with business and production still have problems that need to be further researched, perfected and proposed solutions to contribute to improving the quality of life improve the efficiency of this work, meet the requirements of the new situation.

### **2. Results of theoretical research and practical survey**

#### **2.1. About the theoretical basis**

In Vietnam, housing combined with business and production, currently, there is no specific definition in the legal documents in Vietnam. On the basis of studying the actual operation of this type of housing, it can be generalized into the following concept: “House in combination with business and production is an available separate house that, in addition to the function of living, used as a place of production and business (commercial shops, office services, inns, hotels, small production establishments and other services) or ancillary works serving business and production (treasure, scrap collection...)”. In

which, “available house is a house that has been completed, built and put into use” as defined in Clause 18, Article 3 of the Law on Housing 2014 [8]. The main feature of housing in combination with business and production in Vietnam is that it is built freely, not according to planning, and distributed in densely populated residential areas, around markets, streets and owners. Trading in flammable materials such as clothing, shoes, votive paper, etc. Adjacent tubular building, no backup escape route, no smoke exhaust system. While, most of the indoor area is prioritized for business and living, so the aisles are narrow, not ensuring the distance between fire prevention and fighting. Besides, the majority of business and production household owners pay little attention to fire prevention and fighting; lack of knowledge and skills on fire prevention and fighting; not equipped or equipped with insufficient fire fighting equipment; violation of safety regulations in the use of electricity, poor quality electrical equipment; Business households arrange cooking stoves, places of worship near the goods storage area, while these are all flammable and explosive items. Fire prevention and fighting safety is a combination of organizational measures, technical and technological solutions in order to eliminate and limit the possibility of fire arising; creating favorable conditions for proactively saving people, saving properties, preventing fire spreading and fighting fire promptly and effectively when a fire occurs. In essence, fire prevention and fighting safety is the application of organizational measures, technical and technological solutions to prevent, limit and eliminate the possibility of fire arising as well as save lives, saving property and effectively extinguishing fires, contributing to minimizing damage caused by fire and explosion. With this approach,

it can be understood that “Fire prevention and fighting safety for houses in combination with business and production is a combination of organizational measures, technical and technological solutions in order to eliminate and limit the possibility of a fire; creating favorable conditions for proactively saving people, saving properties, preventing fire spreading and fighting fire promptly and effectively when a fire occurs”.

## **2.2. Legal basis**

Up to now, the provisions of the law on fire prevention and fighting for houses in combination with business and production are gradually being supplemented and completed, creating a solid legal corridor in the work of the People’s Public Security force in general and the Police force for fire and rescue in particular.

First of all, the provisions of the Law on Fire Prevention and Fighting 2001 and the Law amending and supplementing a number of articles of the Law on Fire Prevention and Fighting 2013. Accordingly, stipulate principles and responsibilities for fire prevention and fighting, which specifies the responsibilities of the household in fire prevention and fighting: to urge and remind family members to comply with the provisions of the law on fire prevention and fighting; regularly check, detect and promptly remedy the risk of fire and explosion; coordinate with other agencies, organizations and households in ensuring safety conditions for fire prevention and fighting; strictly manage and safely use inflammable and explosive substances. Particularly for individuals who have the responsibility: to comply with regulations, rules and requirements on fire prevention and fighting of competent persons or agencies; comply with the law and master the necessary knowledge on fire prevention and fighting; know how to use common

fire prevention and fighting tools and means; ensure fire prevention and fighting safety in the process of using fire sources, heat sources, fire- and heat-generating equipment and tools, and in the storage and use of combustible substances; prevent direct danger of fire arising, violations of safety regulations on fire prevention and fighting; implement other regulations related to personal responsibility in the Law on Fire Prevention and Fighting. In particular, along with the above provisions, the Law on Fire Prevention and Fighting has clearly defined the requirements on fire prevention for households in Clause 1, Article 17: the house must have an electrical system, a cooking stove, safe place of worship; flammable and explosive substances must be kept away from fire and heat sources; prepare conditions and means to be ready for fire fighting [9]. Decree No.79/2014/ND-CP dated July 31, 2014 of the Government concretized the requirements into fire safety conditions for households in Article 9, specifically “Cooking places, places of worship, places where fire sources, heat sources, fire- and heat-generating equipment, systems and equipment using electricity must be ensured safety in terms of fire prevention and fighting; property, materials and inflammable substances must be arranged, arranged, preserved and used in accordance with regulations on fire prevention and fighting safety; having fire-fighting means suitable to the operation characteristics and conditions of each household”. However, Decree No.79/2014/ND-CP does not specifically regulate housing for households combining production and business and has not considered households combining production and trading of flammable goods and substances., explosion is an establishment under the management of fire prevention and fighting. In order to concret-

ize the provisions of the Law on Fire Prevention and Fighting, on November 24, 2020, the Government issued Decree No.136/2020/ND-CP detailing a number of articles and measures to implement the Law. Fire prevention and fighting and the Law amending and supplementing a number of articles of the Law on Fire Prevention and Fighting, in which there are specific provisions related to household houses combined with production and business, specifically: Article 7 has prescribed fire prevention and fighting safety conditions for households, according to which: Households must ensure fire prevention and fighting safety conditions as prescribed in Clause 1, Article 17. Law on Fire Prevention and Fighting. Particularly for households living in association with production and business, the following safety conditions for fire prevention and fighting must be ensured: Conditions specified in Clause 1, Article 7; have rules on fire prevention and fighting, on electricity use, use of fire and flammable and explosive substances in accordance with technical regulations and standards on fire prevention and fighting or regulations of the Ministry of Public Security; have solutions to escape, prevent fire from spreading, and prevent smoke between living areas and production and business areas. Fire prevention and fighting safety conditions specified in Clauses 1 and 2, Article 7 must be implemented and maintained by the household head during the operation. Households specified in Clause 2, Article 7 that have been granted business registration certificates must ensure fire prevention and fighting safety conditions corresponding to the type of establishment as prescribed in Article 5 of Decree No. 136. 2020/ND-CP.

In addition to the regulations on fire prevention and fighting prescribed in Decree

No.136/2020/ND-CP, Clause 2, Article 52 stipulates the responsibilities of the commune-level People's Committees, in which: The commune-level People's Committees, within the ambit of their tasks and powers, are responsible for performing the state management of fire prevention and fighting in their localities and have the following specific duties: direct, inspect and organize the implementation of the provisions of the law on fire prevention and fighting; inspect the safety of fire prevention and fighting for residential areas, households, households combining production and business and establishments under their management... [3].

At the same time, Decree No.136/2020/ND-CP stipulates in the list of establishments subject to fire prevention and fighting management (Appendix I), having houses for living in combination with goods production and trading, combustible substances, goods in flammable packages of households; the list of establishments managed by the police agency (Appendix III), whose establishments are residential houses in combination with the production and trading of goods, flammable substances, and goods in flammable packages of households has a total production and business area of 300 m<sup>2</sup> or more; in the list of establishments managed by the commune-level People's Committees (Appendix IV), having houses for living in combination with the production and trading of goods, flammable substances, and goods in flammable packages of households. has a total production and business area of less than 300 m<sup>2</sup> [3].

Thus, it can be seen that the provisions of the Law on Fire Prevention and Fighting and its guiding documents have provided a basic and complete legal basis for the work of ensuring fire prevention and fighting safety with household

housing combined with business and production. The main important issue at present is to organize the implementation and point out the inadequacies, obstacles and difficulties so that measures and solutions can be gradually overcome and effectively and effectively implemented. management, in order to ensure the safety of fire prevention and fighting, to minimize damage caused by fire and explosion.

### **2.3 Practical survey**

Being well aware of the complexity and potential fire and explosion risks for residential areas, households, houses in combination with production and business, the Fire and Rescue Police Department has advised the Ministry of Public Security to issue a Plan. No. 151/KH-BCA-C07 dated April 12, 2021 of the Ministry of Public Security on implementing the peak period of propaganda and safety inspection on fire prevention and fighting for residential areas, households, and houses. in combination with production and business, along with Official Letter No.1052/BCA-C07 dated April 9, 2021, Official Letter No. 1684/BCA-C07 dated June 1, 2021 requesting the Ministry of Information and Communications coordinate and support propaganda on fire prevention and fighting, direct telecommunications networks and related units to support sending messages alternately to transmit messages, recommend and instruct on fire safety. Fire and fire fighting for households by SMS messages to mobile subscribers for people to know and implement. At the same time, at the Police Department, local units have also seriously implemented this Plan, such as: Ho Chi Minh City Police has advised the People's Committee of the same level to issue Decision No. 16/2021/QD-UBND dated May 31, 2021 promulgating regulations on fire prevention and fighting safety

for individual houses and houses in combination with business and production in Ho Chi Minh City; Police of Hanoi, Lam Dong, Ninh Thuan advise the People's Committee of the same level to issue a Directive to strengthen the management of fire prevention and fighting for the type of establishments that are houses combined with production and business in the area.

In Vietnam, the actual area of houses combined with business and production is not large, often making the most of the floor area and indoor space to store goods; The items are spread out under the floor, occupying the aisle, even the stairs up and down are also used to store goods. Many business and production households arrange inappropriate places of worship, altars made of combustible materials. More dangerously, the goods left next to the cooking stove are the risks of fire and explosion. Moreover, the electrical wiring in the areas of business, production, and residence is mostly unqualified for loads, improperly installed and connected, without system maintenance or renovation. The electricity has been degraded and flammable substances such as clothing, paper, cloth, packaging, etc. are left near the electrical outlet.

After implementing the Plan No.151/KH-BCA-C07 dated April 12, 2021 of the Ministry of Public Security, the Police force of Fire and Rescue implemented and obtained the following results: Coordinated with the News Department of Vietnam Television (VTV1), Voice of Vietnam (VOV), VCT Digital Television (VTC14 channel), Dien Newspaper The Fatherland Front, the People's Public Security Newspaper, the Dan Tri Newspaper, ... built and broadcast 20 news reports with the content: "Warning of deadly fire and explosion in hot season", "Ministry of Public Security recommended after a series of reports"

fire and explosion incidents", "Hidden fire and explosion hazards when using gas cylinders in the hot season",... Work closely to develop and publish news and articles on People's Public Security Newspaper, broadcast Alo News 114 on ANTV channel, in which, Ho Chi Minh City, Hanoi, Can Tho, Binh Phuoc ... have actively and effectively carried out extensive and extensive propaganda to the people [1].

In addition, houses in combination with business and production are often built freely, not according to planning, distributed in inner-city areas, around markets, streets and mainly for business and production. combustible materials such as clothes, shoes, fabrics, blankets, groceries ... The adjacent tubular building has no back-up escape route, no solution to prevent smoke accumulation. When there is a fire for houses and businesses, one of the most difficult problems is that there is no smoke exhaust system, and there are many obstacles to accessing the scene to rescue people and property. Fire fighting vehicles are also hindered because of the narrow traffic, most of the structures are adjacent houses, so the demolition of the works is difficult, the fire fighting water source in urban areas in Vietnam has not met the needs bridge. Specifically: (1) The consultation for the People's Committee of the same level to issue documents directing and deploying the implementation of Electricity No. 106/DK: HT, Plan No. 151/KH-BCA-C07 of the Ministry of Public Security and direct the commune-level People's Committees to perform the state management of fire prevention and fighting according to the provisions of Decree No. 136/2020/ND-CP which has not yet met the required time; (2) the direction of the police of the units and localities under it to carry out propaganda, guidance and inspection still

accounts for a low percentage compared to the total number of households nationwide and has not met the requirements on fire prevention and fighting in residential areas, households, residential houses in combination with production and business under the direction of the leadership of the Ministry of Public Security; (3) there were also many fires and explosions in households, houses combined with production and business, causing serious damage to people, for example: the fire killed 08 people on May 7, 2021. in Ho Chi Minh City; The fire killed 4 people in Quang Ngai province on June 4, 2021 and most recently, the fire that killed 6 people in Nghe An province on June 15, 2021; ... [1].

Through the investigation of fires and explosions in the type of housing combined with business and production, the Vietnam Fire Prevention and Fighting Police agency found that there are four main groups of causes fires and explosions in houses in combination with business and production, which are: 1) The owners of business and production establishments' awareness of compliance with fire safety regulations are limited; 2) Workers at these houses also underestimate their own safety in the process of working and working; 3) Due to violation of regulations on fire prevention and fighting safety in using electricity, using poor quality electrical equipment; 4) Due to violation of regulations on fire prevention and fighting safety in using fire sources, heat sources, equipment and tools that generate fire and generate heat in the process of business and production.

### **3. Research results on orientations**

#### **3.1. Continue to improve the legal basis**

– Fire and Rescue Police Department – Ministry of Public Security shall assume the prime responsibility for, and coordinate with functional

agencies of the Ministry of Construction and the Ministry of Industry and Trade in, elaborating national standards or national technical regulations experts on fire prevention and fighting for this target group. Based on the practice as well as the provisions of the current law to unify the contents to be developed, avoiding the overlapping of regulations leading to difficulties in application in practice;

– For the Police force of fire and rescue of local police units, while there are no standards and technical regulations on fire prevention and fighting for objects of combined housing, business, production should actively advise, propose and coordinate with the Department of Construction, Department of Industry and Trade ... to propose the Provincial People's Committee to promulgate regulations on fire prevention and fighting safety for housing. households combine production and business, in which, focus on key contents such as: escape routes; safety in using electricity, using fire; a safe distance in the arrangement and arrangement of goods; in coordination of fire prevention and fighting; ... Along with that, it is to coordinate with local authorities, especially at the commune level in deploying and organizing the effective implementation of fire prevention and fighting measures, in which especially Pay special attention to the propagation and instruction of knowledge and skills on fire prevention and fighting, the manipulation of the use of fire prevention and fighting equipment, the initial handling in case of fire and explosion. In addition, it is necessary to pay more attention to the organization of personnel, to add enough officers to do fire prevention and fighting at the commune level, to constantly improve capacity, qualifications and capabilities adapt to the current conditions and situations;

– Police force for fire and rescue should actively coordinate with the University of Fire Prevention and Fighting to study and develop guiding documents on safety conditions safety and techniques, fire and rescue tactics for household houses, residential houses in combination with production and business so that the Police of the provinces and cities directly under the Central Government can advise the People’s Committee of the province. People of the same level shall promulgate local regulations, standards and technical regulations for household houses, houses in combination with production and business, suitable to the characteristics and actual conditions of each locality. At the same time, continue to coordinate with functional units of the Ministry of Construction and the Ministry of Industry and Trade to research and advise on the promulgation of regulations on fire safety for separate houses, houses in combination with production and business; regulations on ensuring safety in the management and use of electricity at households, establishments, ... ; to guide and coordinate with the commune-level People’s Committees to effectively and efficiently perform their state management responsibilities; organize professional training courses for commune-level police in order to improve their roles and responsibilities in advising and organizing the implementation of propaganda, guidance, management, inspection and handling of violations of regulations of law. the law on fire prevention and fighting for residential areas, households and establishments under decentralized management [4].

### ***3.2. Owners of business and production households and individuals in the work of ensuring safety in fire prevention and fighting***

– Actively learn legal regulations, knowledge and basic skills on fire prevention and fighting

and rescue; take the initiative in contacting and coordinating with the Fire Prevention, Fighting and Rescue Police to receive guidance and organize the implementation of conditions on fire prevention and fighting safety as prescribed by law; actively participate in propaganda and training sessions on fire prevention and fighting organized by local and local fire prevention and fighting police agencies; participate in the movement of all people for fire prevention and fighting and rescue in the locality;

– Regularly self-inspect to promptly detect and immediately remedy the causes and risks of fire and explosion within the scope of their management; assume the situation, how to handle when there is a fire or explosion incident, and disseminate it to family members and people working at the facility to proactively handle when situations arise; equip themselves with means of fire prevention and fighting and rescue and rescue on the spot, perform well the inspection, preservation and maintenance work to ensure that these means are always in good working order; must be proficient in the use of equipped fire prevention and fighting equipment and means of rescue;

– Disseminate, urge and remind family members, employees and people around to comply with the provisions of the law on fire prevention and fighting and rescue;

– Implement safety conditions on fire prevention and fighting according to the provisions of the Law on Fire Prevention and Fighting and the Law amending and supplementing a number of articles of the Law on Fire Prevention and Fighting, Article 7 of Decree No.136/2020 / ND-CP dated November 24, 2020 of the Government detailing a number of articles and measures to implement the Law on Fire Prevention and Fighting and the Law amending and supple-

menting a number of articles of the Law on Fire Prevention and Fighting [3].

### **3.3. Technical solutions to ensure fire prevention and fighting safety in houses in combination with business and production**

– *Regulations on escape routes:*

- Clearance width of emergency exit is at least 0.8 m, clearance height is at least 1.9 m.
- For a house with only one emergency exit, a second escape route must be arranged by the stairs outside the house or the ladder connecting the floors or emergency exits such as the exit through the balcony, the loggia, the entrance to the yard roof or roof to have the ability to escape to adjacent houses or safe areas.
- Houses with terrace floors must be well ventilated and have access from the lower floors through fixed ladders; At the door to the roof, if there is a door lock, it must be designed so that it can be easily opened from the inside.
- Do not block the attic so as not to affect the natural smoke escape. For houses without floor vents or glazed, it is necessary to design, install natural smoke exit holes in the house through the roof or release smoke directly to the outside space at floors.
- The main door of the escape house must use hinged doors. Houses with balconies and loggias must ensure ventilation, not cover balconies, loggias form rooms, do not install iron cages, iron nets that obstruct escape and rescue people when fires and explosions occur. . In case the owner of the establishment, the owner of the business household still wants to

equip rolling doors, sliding doors, iron nets, etc. to protect the property, they must commit to take responsibility for fire prevention and fighting, and at the same time, the rolling doors need to use the type of rolling shutters. Doors with self-collecting, quick-opening mechanism, electric motor-operated doors must have a UPS and mechanically open quickly in case of power failure or motor failure.

- Rooms for storing flammable goods and materials or using fire or heat sources must be separated from emergency exits on floors by non-combustible or inflammable materials. In case the first floor (ground floor) is used for production and business, the emergency exit from the upper floors down through the stairs on the first floor must have a safe passage separated from the production and business areas. business with fire-blocking walls, fire-blocking partitions, the width of the aisles is not less than 0.8 m.

– *Safety regulations in electrical installation and use:*

- The design, new construction or renovation and repair of electrical systems in houses must comply with regulations QCVN12:2014/BXD – National technical regulation on electrical systems of houses and public houses [7].
- The electrical system must be designed separately between areas; There must be overload protection devices (fuses, aptomats...) for the common electrical system of the building, each floor, each branch and each large-capacity power consuming device (air conditioner,



electric stove, oven... ); when installing additional power consuming devices, it must be calculated so as not to overload the power system.

- When storing, trading or producing flammable goods inside the house, electric tools and electrical equipment must be used that are fire and explosion safe; Electricity consuming equipment installed in the warehouse must be controlled by automatic switching devices and placed outside the warehouse.
- Do not install power lines and power-consuming equipment on walls, walls, ceilings, floors made of flammable materials; Installation of lighting bulbs must be attached to specialized hangers, not directly by wires.
- Do not use combustible materials such as paper, cloth, nylon... to cover the electric shade; do not place flammable substances close to electrical appliances and appliances such as light bulbs, irons, electric stoves, electrical outlets, electrical panels...; do not plug the power cord directly into the outlet; When connecting wires, they must be staggered and wrapped with insulating tape, do not expose electrical wire connections, do not use nylon to cover the connections.
  - *Safety regulations in management and use of fire and heat sources:*
    - Do not arrange cooking and worshiping places in production and business areas containing flammable substances and goods. The area for burning incense and worshiping must ensure: walls and ceiling must be made of non-combustible and inflammable materials, and a heat-reflecting

plate must be placed above the ceiling; When lit, oil lamps, incense and candles must be placed firmly on non-combustible or difficult-to-burn materials. The cooking area must be kept away from flammable materials at least 0.7 m, if there is a fire-proof insulation board, it is allowed to be closer, but not less than 0.2 m. In case LPG consuming equipment is used in the house (gas stove): all electrical equipment in the house must be installed at least 1.5 m away from the LPG bottle; install gas leak warning device in the area where the gas tank and gas stove are located.

- When business and production conditions use fire sources, heat sources, fire and heat-generating equipment, it is necessary to arrange ways of combustible materials, vehicles and tools containing petrol, oil and flammable liquids. cars, motorbikes... ) at least 0.7 m, if there are insulation panels to prevent fire, they are allowed to be closer, but not less than 0.2 m; When business and production conditions need to store gasoline, oil and flammable liquids, they must be stored in a well-ventilated place, away from sources of fire and heat, away from direct sunlight and not on the exits.
  - *Safety regulations in cargo arrangement:*
    - Sorting and preserving goods according to each type, having the same properties and characteristics, arranged goods must be placed on shelves, shelves firmly, neat, tidy, not obstructing the passageway, emergency exit, especially the lobby, the exit at the 1st floor.
    - Combustible goods must be located at least 0.7 m away from electrical equip-

ment capable of generating heat such as light bulbs, sockets, circuit breakers, etc.

- Combustible or combustible goods should be arranged in separate areas and rooms, not mixed with other goods and meet the requirements to prevent fire spread, not arranged under the stairs.
- Exclude conditions that can lead to spontaneous combustion due to heat generation, chemical reactions between substances.
- Failing to gather and arrange goods and business materials on roads that obstruct traffic and may affect the deployment of firefighting, rescue and firefighting forces, vehicles and equipment. each house.
- The installation of signs and billboards into existing houses must comply with the law on advertising, comply with the National Technical Regulation on construction and installation of outdoor advertising means QCVN17:2018/BXD [6].

– *Regulations on equipment for fire prevention and fighting equipment:*

- For business and production areas, the number of fire extinguishers must be equipped to ensure the protection area as prescribed in Section 5 of National Standard TCVN3890:2009 Means of fire prevention and fighting for houses and works – equip, arrange, check and maintain [5]. The maximum travel distance to the fire extinguisher is not more than 20 m.
- Equip and install local fire alarm equipment, means of rescue and rescue (toxic filter masks, self-rescue ropes, rope ladders, common demolition tools, sheep

blankets, water containers just in service activities, both serving fire fighting, ... ) in accordance with the scale, nature, characteristics and purposes of use.

- Fire prevention and fighting means must be stamped with inspection stamps and periodically checked and maintained according to regulations.

#### **3.4. Local authorities, police at all levels in the management of housing combined with business and production in the area under their management**

– *For the People’s Committees of districts and communes:*

- Perform state management of fire prevention and fighting according to the provisions of Article 52 of Decree No. 136/2020/ND-CP dated November 24, 2020 of the Government detailing a number of articles and implementation measures. implementation of the Law on Fire Prevention and Fighting and the Law amending and supplementing a number of articles of the Law on Fire Prevention and Fighting [3].
- Propagating, disseminating and guiding the implementation of fire prevention and fighting safety work to households, business households, organizations and individuals concerned within the scope of management responsibilities.
- Inspect fire prevention and fighting safety conditions for houses in combination with business and production in the area under their management (except for houses in combination with business and production in Appendix III to this Decree). No.136/2020/ND-CP); handle violations of the law on fire pre-

vention and fighting according to their competence.

– *For the Police and departments and branches:*

- To assume the prime responsibility for, and coordinate with relevant units in, guiding, deploying and inspecting the implementation of legal provisions, standards, technical regulations and leading and directing documents on the protection ensure fire safety for housing combined with business and production of the local government; the implementation process, synthesize difficulties and obstacles to propose the competent authorities to amend and supplement regulations accordingly.
- Perform the function of state management of fire prevention and fighting according to assignment and decentralization; inspect the fire prevention and fighting safety conditions for houses in combination with business and production in Appendix III of Decree No. 136/2020/ND-CP in the locality; handle violations of the law on fire prevention and fighting according to their competence.
- Coordinating with departments, agencies, branches and People's Committees at all levels in their respective manage-

ment areas to organize propaganda and guide the heads of households, business households, organizations and individuals to strictly observe regulations on safety and security. complete fire prevention and fighting for houses in combination with business and production.

- Departments, branches and Electricity Company: According to their functions and tasks, actively perform their responsibilities and at the same time coordinate closely with the Public Security and People's Committees at all levels to organize the implementation. implement regulations on ensuring fire prevention and fighting safety for houses in combination with business and production.

### **5. Conclusion of research problem**

The type of housing in combination with business and production in countries around the world in general and in Vietnam in particular will develop strongly according to the trend of the exchange market, buying and selling goods and the needs of the people. Accordingly, the organization, management, and strengthening of fire prevention and fighting safety, especially the strict implementation of the above solutions will contribute to ensuring the sustainable development for this type of establishment.

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