NGUYEN CHAN NAM

TRAINING HUMAN RESOURCES FOR FIRE FIGHTING PREVENTION AND RESCUE AND SALAGE: EXPERIENCES OF SOME COUNTRIES LESSONS FOR VIETNAM

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SUMMARY OF PHD THESIS
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Supervisor:
1: Assoc. Prof, Dr. Dinh Cong Tuan
2: Assoc. Prof, Dr. Do Ngoc Can

Reviewer 1: Assoc. Prof, Dr. Do Duc Binh
Reviewer 2: Assoc. Prof, Dr. Do Huong Lan
Reviewer 3: Assoc. Prof, Dr. Pham Thi Thanh Binh

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LIST OF THE WORKS OF THE AUTHOR

1. Nguyen Chan Nam, “Some issues on fire protection HR training in Russia Federation”, European Studies Journal No. 8(179)/2015.


INTRODUCTION

1. The necessity of the subject

The demand for training and developing human resources (HR) of any nations, sectors, socio-economic branches as well as in organizations is increasing day by day associated with the growing integration and international competition, rapid changes in sciences and technology and increasing socio-economic pressures. HR training is seen as a basic factor to meet strategic targets of any countries, sectors as well as of any organizations. The reality showed that investing in HR training can bring about an absolutely higher efficiency than investing in innovation of technical equipment and other factors of the production and business process. Thus, organizations as well as enterprises of and the biggest countries in the world such the U.S, Russia, China, etc. all attach importance to HR training and developing.

In the field of fire fighting prevention and rescue and salvage, in order to contribute in ensuring that stable growth of the economy in the context of increasing threats of fire and explosion, fire fighting prevention and rescue and salvage HR in the countries with developed economy are often trained in favorable conditions, based on the best methods and with modern fire fighting prevention equipment. The U.S is a leading well-known country in the world in term of education and training, and its fire fighting prevention and rescue and salvage HR is paid attention to be trained towards professional and practical orientation, and is equipped at the modernest level in the world. China is a country with a merging economy, rather close to Vietnam in term of geography, has many similarities with Vietnam in terms of economic, politic, social, thus China's experience, included that in fire fighting prevention HR training will have points (both successful and in successful) worth being referred. Finally, Russian Federation has a long years development history in the field of fire fighting prevention and rescue and salvage whose professional force is trained at famous fire fighting prevention and rescue and salvage HR training institutions.
worldwide, and the fire fighting prevention and rescue and salvage HR training system of Vietnam is inherently affected by that of Former Soviet Union. Whereas, the fire fighting prevention HR training in Vietnam currently exists many issues in different aspects, which affect the quality of fire fighting prevention fighting HR training, then efficiency of the fire fighting prevention force and work of Vietnam. What to do in order to improve the quality of the fire fighting prevention HR training of Vietnam in the context of international economic integration. Through the research on the actual state of HR and HR training for fire fighting prevention sector in three countries of the U.S, China and Russian Federation and comparison with the reality of fire fighting prevention HR training of Vietnam, on one hand, the Thesis can indicate the issues Vietnam has successfully done as well as outstanding issues in fire fighting prevention HR training. On the other hand, thereby, the Thesis will draw specific experience lessons and find out appropriate orientation for innovation of the fire fighting prevention HR training in Vietnam in the context of more and more intensively international economic integration in the coming time.

Simultaneously, as a lecturer and scientific researcher in the the field of fire fighting prevention and rescue and salvage, the research student would like to profoundly research the reality and experience in fire fighting prevention HR training of other countries, which are a ground for drawing orientations for completing the research work and fire fighting prevention HR training of myself, of Official Fire Fighting Prevention University - where I am working in particular as well as the fire fighting prevention HR training of Vietnam in general in the context of international economic integration.

For the said above reasons, the Research Student chooses the subject "Fire fighting prevention & rescue and salvage human resources training: Experience of some countries and lessons for Vietnam” as the subject of my Doctoral Thesis in Economics. It is expect that after completing, this Thesis is meaningful not only in the aspect of theory but
also in the practice of the fire fighting prevention & rescue and salvage HR training in Vietnam as well as of Official Fire Fighting Prevention University and myself.

2. Purposes and tasks of the research

2.1. Research purposes

This Thesis analyzes the actual situation of fire fighting prevention & rescue and salvage HR training in some countries, specifies the characteristics, successes and some outstanding issues of it, based on which to draw some experience lessons for Vietnam. Based on the said and from the actual issues of fire fighting prevention & rescue and salvage HR training in Vietnam, the Thesis will recommend some solutions for improving the quality of fire fighting prevention HR training of Vietnam in the coming time.

2.2. Research tasks

To implement the research purposes said above, the Thesis must solve the tasks or answer main research questions as follows:

Firstly, which theoretical bases and main practices does the fire fighting prevention & rescue and salvage HR training come from?

Secondly, what are the successes and outstanding issues of the fire fighting prevention & rescue and salvage HR training of the countries of the U.S, China and Russian Federation and why?

Thirdly, from the research on the fire fighting prevention & rescue and salvage HR training of the said above countries, what experience lessons can be drawn for Vietnam?

Fourthly, since then and from analyzed characteristics of the fire fighting prevention & rescue and salvage HR training in general and the fire fighting prevention police training in Vietnam in particular, what we need to do and how to do in order to apply the said experience into improving the quality of HR training of Vietnam in this sector?

3. Object and scope of the research

3.1. Object of the research:

The object to research of this Thesis is the fire fighting prevention
& rescue and salvage HR training, which focuses on fire fighting prevention HR training of some countries, namely the U.S, China, Russia Federation and Vietnam.

3.2. Scope of research:
- Scope of the content: Fire fighting prevention & rescue and salvage are very different activities, in spite of being rather closely related with each other, so are the fire fighting prevention HR training and rescue and salvage HR training. In reality, the contents of these two activities are both huge and included complicated issues, so the research student is afraid that, the scope of 150 pages of the Thesis can not cover and thoroughly address all related issues of them in some countries, causing the scientific conclusion of the Thesis will be unconvincing, insignificantly scientific and practical. While, in Vietnam, the rescue and salvage activity and the rescue and salvage HR training are not only a separate responsibility of the police force in charge of fire fighting prevention (Ministry of Public Security), but also are responsibility of many other sectors such as Transport (roads, railway, water way and airway), Ministry of National Defense, Ministry of Agriculture and Rural Development, etc. with the training contents as well as the training bases and training conditions are very different (Refer sub-item 2.1.2). Therefore, in order that the set out issues for the Thesis subject are thoroughly researched and useful, the Thesis mainly focuses on research the fire fighting prevention & rescue and salvage HR training of the fire fighting prevention police force (in Vietnam, of Ministry of Public Security), without researching on the rescue and salvage HR training belonging to other Ministries, sectors as well as the rescue and salvage HR training of the units of the Ministry of Public Security. Especially, in which, the Thesis focuses on the fire fighting prevention activities and fire fighting prevention HR training, which is the major activity of the fire fighting prevention Police and only mentions the rescue and salvage and rescue and salvage HR training in case fire and explosion belong to responsibility of the fire fighting prevention police force but not research the rescue and salvage and the rescue and salvage HR training of other Ministries, sectors and areas.
Simultaneously, the rescue and salvage HR training is only researched as far as it is related to fire fighting prevention, which means rescue and salvage in fire fighting. And finally, with such research awareness and perspective, plus the convenience for presentation, the term of fire fighting prevention & rescue and salvage in the Thesis will be shortened to be fire fighting prevention and the term of fire fighting prevention & rescue and salvage human resource will be shortened to be fire fighting prevention HR.

- **Spacial scope:**

The research is on fire fighting prevention HR training of some countries, namely the U.S, China, Russia Federation and Vietnam. In Vietnam alone, in spite of the fact that the Thesis also researches fire fighting prevention training in and out of schools nationwide, yet the regular fire fighting prevention HR training in schools is concentrated (the only) in the Official Fire Fighting Prevention University (including college, university and postgraduate), all issues related to regular fire fighting prevention HR training in schools of Vietnam coincide with that in this University. At least, almost illustrations for issues related to regular fire fighting prevention HR training in schools in Vietnam in general, mentioned in this Thesis, are from the Official Fire Fighting Prevention University.

- **Time scope:**

As for the fire fighting prevention HR training of the U.S, China and Russia Federation, the Thesis will focus on researching the most recent decades, yet in relation and comparison with the previous periods in some aspects when necessary. For Vietnam, the research focuses on the period of 2001 (when Vietnam law on fire prevention and fighting was enacted and took effect) to 2014, orientation by 2020 and vision by 2030.

4. **Approach and methodology**

4.1. **Approach**

- **Systematic approach:** Issues of fire fighting prevention HR training are analyzed and assessed in a complex of related factors interacting with each other and creating a complete unity.
- **Discipline approach**: This Thesis approaches the HR training issue in the sector of fire fighting prevention based on the combination of multi-discipline such as historical science, sociology, politics, economics, education, etc.

- **Historical approach**: Specific historical perspective was thoroughly in the research process of issues related to the HR training in the field of fire protection in certain historical periods. Simultaneously, when analyzing, assessing the perspectives and the actual situation of fire fighting prevention HR training, the author considered them in specific historical context and conditions in perspective of development logics.

### 4.2. Methodology:

- **Analysis and synthesis** were used in the whole Thesis process to analyze and synthesize the conclusions on perspectives related to HR training in general and fire fighting prevention HR training in particular, applied to analyze and synthesize the assessments on the actual situation of fire fighting prevention HR training in current period in the U.S, China and Russia Federation, from which the experience lessons are drawn for Vietnam.

- **Comparative-contrastive method** was used to facilitate the assessment of the fire fighting prevention HR training in Vietnam against the set out contents, criteria and compared to other countries in the world.

- **Inheritance**: The Thesis also inherited the study results on human resources training and fire fighting prevention & rescue and salvage HR training of domestic and foreign authors, especially the works mentioned in Chapter 1: *Overview of the research related to the Thesis* and references in the list of references in the end of this Thesis is to clarify the researched issues.

- **Case study method** (point approach – case studies): Characteristics of the fire fighting prevention HR training vary nation by nation, so, when researching about fire fighting prevention HR training, the Thesis elected to
analyze the actual situation of the fire fighting prevention HR training in three typical countries, namely, the U.S, China and Russia Federation.

5. New contributions of the Thesis
   - It systematized and clarified basic theoretical issues related to fire fighting prevention HR training.
   - It represented, analyzed and assessed the actual situation of fire fighting prevention HR training in some countries in the world, namely the U.S, China and Russia Federation, generalized main characteristics, indicated the successes and limitations, and drew experience lessons for Vietnam.
   - Simultaneously, based on the said experience, plus analysis of the actual situation of the fire fighting prevention HR training in Vietnam in period of 2001-2014, it indicated the characteristics and outstanding issues of the said in Vietnam. The Thesis recommended some solutions for improving the quality of fire fighting prevention HR training in Vietnam in the coming time.
   - With the said contributions, the Thesis can be used as helpful references for agencies, universities and colleges, the researchers and lecturers concerned this work in Vietnam.

6. The Thesis structure
   In addition to the introduction, conclusion, List of abbreviations, List of Tables, Sheets, List of the announced studies of the author which are related to this Thesis, and the references list, main content of the Thesis comprises of 4 chapters:

   Chapter 1. Overview of research related to the Thesis.
   Chapter 2. Theoretical and practical basis on fire fighting prevention & rescue and salvage HR training.
   Chapter 3. Actual situation of the fire fighting prevention & rescue and salvage HR training in the U.S, China and Russia Federation.
   Chapter 4. Solutions for improving the quality of the fire fighting prevention & rescue and salvage HR training in Vietnam.
Chapter 1.
OVERVIEW OF RESEARCH
RELATED TO THE THESIS

This Chapter of the Thesis names the studies and their authors in and out of Vietnam country, which studied on the same subject with the Thesis in categories of issue as follows:

1. Studies on HR training in general

2. The studies on fire fighting prevention & rescue and salvage HR training.

3. The studies on the experience of the fire fighting prevention & rescue and salvage HR training in the U.S, China and Russia Federation.

4. The studies on the experience of the fire fighting prevention & rescue and salvage HR training in Vietnam.

After reviewing the studies and their authors on the same subject with the Thesis, the Research Student gave assessments, remarks about the research situation as follows: In spite of the fact that, up to now in the world as well in Vietnam there have been studies on HR training in sectors and organizations in general, few authors and studies systematically and profoundly mentioned the HR training in the fire fighting prevention sector. Besides, almost the said studies and their authors only approached it at angle of external evaluation, or in sporadic aspects, and only mentioned additionally in the study scope of other issues rather than a really intensive study on it alone, especially the studies related to fire fighting prevention HR training in Vietnam. Therefore, a systematical and intensive research on the fire fighting prevention & rescue and salvage HR training in general and fire fighting prevention HR training in some other countries and Vietnam in particular is a set out task for this Thesis.
Chapter 2.
THEORETICAL AND PRACTICAL BASIS FOR FIRE FIGHTING PREVENTION & RESCUE AND SALVAGE HR TRAINING

2.1. Basic concepts

2.1.1. Concept of human resources (HR)

2.1.2. Fire fighting prevention & rescue and salvage HR

Fire fighting prevention & rescue and salvage HR is understood as people trained or self train on fire fighting prevention discipline, operation and employed by agencies, organizations responsible for fire fighting prevention, other agencies or organizations with an aim of implementing the work related to fire fighting prevention and rescue and salvage.

2.1.3. Concept of human resources (HR) training

The concept of training is understood in economic perspective as study activities to help the employees be able to implement their functions, tasks more effectively. Training activities performed in order to maintain and improve the HR quality of organizations are a decisive condition for organizations to be able to stand in sustainable manner in a competitive environment and contribute to attaining the target of pushing up the development of discipline and economy.

2.1.4. HR quality and evaluation criteria

HR quality evaluation criteria include: (1) physical condition criteria (health condition, labor ability), (2) intellectual criteria (educational qualification, professional qualification), (3) personality criteria (ethics, working style, life style, etc.) and (4) social dynamic criteria (willing to work, competitiveness and adaptable to work).

2.1.5. Fire fighting prevention HR training

Generally, the concept of fire fighting prevention HR training in all countries worldwide is basically understood as study activities to help people working in the fire fighting prevention sector be able to implement their functions, tasks more effectively. The activities of HR training for fire fighting prevention sector are implemented to maintain
and improve HR quality of the organizations responsible for fire fighting prevention, contributing to attaining the target of pushing up the stable development of economy.

2.1.6. Goals of fire fighting prevention HR training

Train fire fighting prevention & rescue and salvage force on all three aspects: physical condition, metal power and socio-psychological qualities, occupational ethics, etc. and special importance is attached to mental power, physical health, creativity and adaptability to changes in science and technology in order to be able to directly take part in the fire fighting prevention work.

2.2. HR training models and model of factors affecting the quality of fire fighting prevention HR training

2.2.1. Systematic training model of Michael Armstrong

2.2.2. Training transfer model of Holton – Holton’s transfer model

2.2.3. Systematic theoretical model of Ludwig Vin Bertalanffy

2.3. Factors affecting the fire fighting prevention HR training of Vietnam in current conditions

The fire fighting prevention work and the fire fighting prevention HR training is affected by many factors; they may be the actual socio-economic state of each country, impacts of international and regional factors due to innovation process, door open and international integration, limitations to resources (technology, finance, etc.) I hereby specify some major factors related to the fire fighting prevention HR training of Vietnam at present such as:

- Macro polices and support of the State, international organizations in HR training for organizations
- Awareness and participation of organizations, enterprises and individuals
- Low development level and limited financial capacity of Vietnam
- Innovation cause and education and training reform for the cause of industrialization and modernization.
- International economic integration

2.4. HR training content

2.4.1. Training methods
a) *On-job training*
Includes: method of proving the practice, coaching, practicum, advising/consulting, alternating work.

a) *Off-job training*
Includes: training in class, instructing in program, computer based training (remote training, conference/workshop, and extracurricular activities.

2.4.2. **HR training process**
(1) Determine demand for training
(2) Set up training plan
(3) Implement training
(4) Assess training

**Chapter 3. ACTUAL SITUATION OF THE FIRE FIGHTING PREVENTION & RESCUE AND SALVAGE HR TRAINING IN THE U.S, CHINA AND RUSSIA FEDERATION**

3.1. Fire fighting prevention HR training in the U.S

3.1.1. **Characteristics of the fire fighting prevention HR of the U.S**
Fire fighting prevention in the U.S is called Fire protection service and this country has a long time history of this activity. To meet the safety requirements on fire protection of its economy, the fire protection HR in the U.S has a rather big scale.

3.1.2. **The actual situation of fire fighting prevention HR in the U.S**
(1) Perspectives and goals of the fire fighting prevention HR training

(2) Demand for and requirements on fire fighting prevention HR training in the U.S

- **Demand:** The demand for fire fighters training in the U.S increases year by year, only in the period of 2013 to 2014, it increased by 25% locally.

- **Requirements:** in term of qualification in general, a fire fighter must hold high school diploma or an equivalent. In addition, he/she is required to meet requirements in term of physical condition and
responsibility to work pressure, hold an emergency medical certificate.

(3) Contents and methods of the fire fighting prevention HR training

The training contents often include:
- Scope of study: compulsory subjects and optional subjects;
- Duration of time for each subject;
- Schedule, determined goals, contents of the training course and assessment method for subjects;
- Procedures (e.g. testing programs) must be complied with to test the quality and teaching method.

(3) Training methods

A survey on fire fighters training methods at fire fighting facilities in Monomonie and Rice Lake cities showed that computer based training and on class training were the least beloved training methods, while practical instruction training was the most beloved training one according to the results from the survey notes. By the way of learning under such practical instruction, when graduating, fire fighting trainees of the U.S will immediately implement assigned tasks.

(4) Assess training program

One of fire fighting prevention training programs the most commonly applied by the U.S is dividing the training assessment into four grades, including: reaction, learning, behavior and results. The "reaction" grade shows how a trainee is interested in the training and whether the training is interesting or useful or not. The "learning" grade describes what a trainee grasps from the training process. The "behavior" grade is a practical application of the "learning" grade, whose purpose is to determine if a trainee can use new skills in the fire fighting prevention field or not. Finally, attainable results, such as a tangible product, are the ones from the training process.

(5) Material facilities for the training (Training conditions)

The U.S is unceasingly investing, upgrading its material facilities of schools, classrooms, labs, dormitories, models, drilling grounds nearly
like reality in order for the trainees to be familiar to the work.

3.2. Fire fighting prevention HR training in China

3.2.1 Characteristics of the fire fighting prevention HR training in China

Fire fighting prevention force in China includes: Fire fighting prevention police, dedicated fire fighting prevention force of localities, dedicated fire fighting prevention force of enterprises, in which the fire fighting prevention police is the decisive force.

3.2.2. The actual situation of fire fighting prevention HR in China

(1) Perspectives and goals of the fire fighting prevention HR training

(2) Demand for and requirements on fire fighting prevention HR training in China

The rapid growth and development of the Chinese economy result in increasing need for fire fighting prevention, followed by the increasing need for fire fighting prevention HR training day by day.

(3) Contents and methods of the fire fighting prevention HR training

- Design the training programs: Basically, the training majors of fire fighting prevention training facilities in China are rather diversified.

- Training methods: The economic development and integration process results in an intensive innovation in term of content and teaching methods in fire fighting prevention HR training in China.

- Assess training programs: China established a scientific management system and reformed the experiment assessment method, combined the traditional experiment assessment method and new assessment method.

(4) Human factor (trainers and trainees)

- Improve in both quality and quantity of the trainers

- Enhance the participation, activeness of the trainees into the training process

(5) System of fire fighting prevention training facilities
- China has a system comprising of many fire fighting prevention & rescue and salvage training facilities locally built nationwide, especially in key areas.

3.3. Fire fighting prevention HR training in the Russia Federation

3.3.1. Characteristics of the fire fighting prevention HR of the Russia Federation

3.3.2. The actual situation of fire fighting prevention HR training in the Russia Federation

(1) Perspectives and goals of the fire fighting prevention HR training

(2) Training content

- Training programs: Innovated training programs of fire fighting prevention universities include training skills on managing rescue activities for highly risky dangers and implementing emergency humanity activities.

- Training methods: The training process initially focuses on acquiring basis skills for the work of individuals in an organization. Theoretical training is combined with practical training with more reasonable learning hour ratio.

(3) The material facilities and training equipment

In the field of fire fighting prevention HR training, the training facilities in Russia Federation has rather modern technical material facilities and equipment, very modern rehearsal experiment facilities for treating fire and explosion situations and emergency situations on areas in range of 70 hectares to 200 hectares.

3.4. Remarks, assessments drawn from the training experience of some countries

- Goals, strategic perspective
- Enrollment
- Innovate the training content and method
- Training assessment process in each country
- Investment in training material facilities
- Building up the human factor
- Attract volunteers

3.5. Experience lessons for Vietnam in fire fighting prevention police HR training

Relation between the training goals and the actual situation of specific socio-economic development of each country;
- As for enrollment policies for the fire fighting prevention HR training and recruitment of the fire fighting prevention force;
- As for the training content and method;
- Regularly pay attention to building up the teachers and managers in both quantity and quality;
- Bring activeness, creation and discipline of the learners into full play;
- Modern infrastructure, equipment appropriate to nature, tasks of the fire fighting prevention force should be invested and built;
- And the fire fighting prevention HR should be pushed up by socialization.

Chapter 4. SOLUTIONS FOR IMPROVING THE QUALITY OF THE FIRE FIGHTING PREVENTION & RESCUE AND SALVAGE HR TRAINING IN VIETNAM

4.1. The actual situation of fire fighting prevention HR training in Vietnam

4.1.1. Fire fighting prevention police HR at present in Vietnam

4.1.2. The actual situation of fire fighting prevention HR training

(1) Training at the Official Fire Fighting Prevention University

This university organizes training for the learners with 12 training programs from college, university to postgraduate.

(2) Contingent of officers, teachers

In spite of the fact that the training at the Official Fire Fighting Prevention University is major, besides, the Ministry of Public Security also organizes, expands the training scale and training forms and training at educational grades: College, university, post graduate and short term
fostering.

(3) Content of the training program

- The training program is established based on the college level training program on fire fighting prevention and fire fighting prevention engineers training program of the Fire fighting prevention engineering University directly under Ministry of Emergency Situations of Russian Federation (now being known as Academy of State Fire-Prevention Service of Russia Federation.

- The training program structure of the University is rather appropriate, systematically designed between understanding blocks, ensuring logics between study units, meeting basic requirements in term of skills understanding of training qualifications and flexibly meeting the need for fire fighting prevention HR.

(4) Training methods

- Many teachers know how to apply advanced teaching methods appropriate with features of subjects.

- Teaching methods are applied by profession situations, the lecture content is based on teaching video tapes, E-syllabus is compiled, informatics is applied, profession skills and practical capacity in reality are improved.

(5) Material facilities for fire fighting prevention training and scientific research activities in the field of fire fighting prevention

+ The system of training facilities is being built and expanded
+ Training equipment, labs, means are being improved

(6) Assess training quality

- Establish assessment criteria
- Establish the Department of Testing And Training Quality Assurance
- Assess study results of students

4.1.3. Limitations in fire fighting prevention HS training in Vietnam

(1) Quantity of the trained officers has not met the actual demand

(2) Team of teachers, training managing officers is still
insufficient to meet the training scale
(3) The training program content is slow innovated
(4) The training material facilities and equipment are still poor

4.2. Socio-economic prospects and forecast the demand for fire fighting prevention HR training by 2020 and 2030

4.2.1. Socio-economic prospects related to the fire fighting prevention HR training
- Boom of sciences and technologies.
- Rapid development of socio-economic situation
- The population growth, increasing development of concentrated industrial parks, export processing zones, economic zones.

4.2.2. Forecast of the demand for and task of fire fighting prevention HR training
- Forecast of the demand for training: As for the fire fighting prevention HR, according to development planning by 2020, it is required to reach the target of 100% the facilities having fire fighters mounting up to tens of thousand of members trained, fostered in fire fighting prevention profession and equipped with means meeting the fire fighting prevention work of the facilities.
- Training tasks: building and prepare a well trained and active force.

4.3. Solutions for improving the quality of the fire fighting prevention & rescue and salvage HR training in Vietnam (solutions for fire fighting prevention HR training facilities)

4.3.1. Group of solutions on establishing policies, factors supporting the training and the training conditions
(1) Enrollment policies
- Propagandize, disseminate about fire fighting prevention training
- Attract very good high school pupils and students of other sectors to join the fire fighting prevention police force.
(2) Improve material facilities and training conditions
- Increase quantity and expand the training facilities
- Strengthen the investment into fire fighting prevention equipment and means
- Improve the training conditions
  (3) *Intensify scientific research and technological development for the training*
- Increase the investment into scientific research and technological development for fire fighting prevention training
- Encourage teachers and learners to take part in scientific research and technological development on fire fighting prevention

4.3.2. *Group of solutions on establishing basic in-school training factors*

(1) Determine demand for and goals of training
(2) Innovate the training methods
(3) Innovate the content of the training program

4.3.3. *Group of solutions on establishing human factors: The training force (teachers, training managers) and the trained objects in school*

- Establish an in-school team of teachers, training managers towards standardization, ensuring quantity and quality, synchronous structure, pay attention to improving political quality, ethnics, lifestyle, occupational sense, professional qualification, meeting the requirements of development, education and training innovation and establishing in-school force in the stage of promoting national industrialization and modernization.
- Encourage learners to take part into study and bring their activeness and positiveness into full play.

4.4. *Recommendations*

4.4.1. *Recommendations to the Government.*

Firstly, macro policies should be built and completed to develop the fire fighting prevention. It is extremely essential task to innovate in the main the fire fighting prevention HR via training with a goal of improving HR quality of the fire fighting prevention police force in order to meet the international integration requirement. Thus, a laws system on fire fighting prevention & rescue and salvage must be established and
completed to ensure the synchronism, efficiency, true to the reality in this field. The Government needs to direct local authorities to further push up the propaganda, dissemination on the fire fighting prevention law and understanding in regular and intensive manner in order to raise awareness of fire fighting prevention and attract all social sectors to participate in fire fighting prevention and attract more very good pupils and students out of the sector to join the fire fighting prevention training.

Secondly, fire fighting prevention police force training facilities should be invested and built. In the context of globalization and international economic integration as present, the need for fire fighting prevention & rescue and salvage profession training and fostering for the fire fighting prevention police as well as the fire fighting prevention force of facilities and other subjects in society is very high and increasing. However, the quantity of fire fighting prevention training facilities is few compared to the developed countries. Material facilities, special means and simulators for training are lacking. Therefore, the efficiency of fire fighting prevention & rescue and salvage profession training and fostering is not high. From such a reality, it is required that the Government adequately invests into building additional fire fighting prevention training and fostering facilities and centers throughout the areas nationwide.

Simultaneously, the Government need further promulgate incentive, satisfactory treatment policies for scientific and technological activities in education - training facilities. The Governmental Decree 99/2014-ND-CP on potential development investment and scientific and technological activity encouragement in universities stipulates on the bonus for lecturers having contribution in scientific research and some other treatment regulations, yet the beneficiaries are few.

4.4.2. Recommendations to the Ministry of Public Security

Firstly, it is required to study strategic plan on selective training, fostering and developing the people's police force, in which the fire fighting prevention teachers are sufficient in term of quantity and quality
with reasonable structure, meeting the requirements of the fire fighting prevention task in the new context.

Secondly, further upscale, diversify training models, improve quality of the training and scientific research on fire fighting prevention. Annually, the Ministry of Public Security should save a half of annual enrollment quantity for training fire fighting prevention of university, college grade as presently; and the remaining a half of annual enrollment is for the selected officers who graduated from other colleges, universities to be trained in people's police profession, fire fighting prevention, materials art, shooting, etc. in period of 6 months to 1 year before assigning to work in local units.

Thirdly, it is necessary to have policies to attract, treat, and employ in order to bring into full play the role of intelligentsia in line with work requirements of the fire fighting prevention police force. Especially, policies on attracting, selecting high qualified teachers, leading experts who the fire fighting prevention police force has not been able to train such as: Informatics, automation, scene examination, medical officers training rescue and salvage, etc. These forces must be created favorable environment and conditions to bring their creativity into full play and whole-heartedly devote.

Fourthly, the fire fighting prevention force, Official Fire Fighting Prevention University must be created favorable conditions to actively establish international cooperation plans in the field of fire fighting prevention with fire protection agencies of other countries; actively seek for partners, directly agree on cooperation with foreign fire protection training facilities for exchanging experience, experts, managers, learners to research, train study.

Fifthly, it is necessary to study, complete the rated budget allocation system that funds for education training, sciences technology of the training facilities in People's Police included the Official Fire Fighting Prevention University. In the coming years, the Ministry of Public Security should continue to propose relevant authorities of the
State to ensure financing arrangement for education and training with year on year increase by 10% to 15% and enhanced funding for constructing material facilities in order to additionally support budget spending on fire fighting prevention which is now very difficult.

4.4.3. Recommendations to the Ministry of Education and Training

Firstly, the Ministry of Education and Training need to agree with the Ministry of Public Security to organize competitive examination, selection and sending officers abroad for studying Master, PhD programs in fire protection; increase the quantity of students passing full time university entrance exam of the Official Fire Fighting Prevention University sent to be trained at external schools in the national education system at undergraduate and graduate level in order to meet the requirements on training, researching particular subjects of fire fighting prevention police force.

Secondly, it is necessary to set up and promulgate legal normative documents related to the particulars of fire fighting prevention HR training and allow the Official Fire Fighting Prevention University to open new training majors codes in order to meet the demand for intensive training of fire fighting prevention police force.

Thirdly, allow the Official Fire Fighting Prevention University to have higher autonomy, especially in the field of the training content and training program. I should think, since the HR trained by this University requires a high practical nature, this is true not only for college level but also university level, the Ministry of Education and Training need to allow the University to check up the program frame again and the training content and edit in direction of reducing (time duration and content) unnecessary subjects, academic or "pure" theoretical nature and enhance the practical and reality content of the lectures.

CONCLUSION

The fire fighting prevention HR training plays an important role in promoting and reinforcing fire protection activities of many countries in the world as well as Vietnam country, through which the stable
economic development is ensured. For the importance of the fire fighting prevention HR training, the Thesis systematized and developed theories on HR training in general and approach to fire fighting prevention HR training. Based on the models of HR training process content and factors affecting HR training process in current context of Vietnam, the Thesis studied insight and analyzed the actual situation of fire protection HR training in some countries whose fire protection activity strongly develop, include: the U.S, China and Russia Federation.

Countries of the U.S, China and Russia Federation are the world’s largest economies, have a huge need for fire protection activity and therefore required a qualified fire protection force capable of responding to emergency situations; minimize risks for their enterprises and economies. With the perspective of improving the quality of education and training in the field of fire fighting prevention, over the past years, the fire protection training facilities in these countries have been innovated, strongly developed and successfully trained their fire protection forces with high professional qualification, adequate physical condition which effectively contributed to the fire and explosion fighting and prevention activities, protected the safety for the whole socio-economy.

From the actual situation and experience of the fire fighting prevention HR training of the said countries, some major lessons are drawn for Vietnam as follows: (i) determining training goals in general and the fire fighting prevention HR training goals in particular need to be placed in the specific context, qualification and socio-economic development stage of each country, which both proceeds and takes advantages of the context and supports, promotes the context. (ii) as for policies on enrollment for the fire fighting prevention HR training and recruitment of the fire fighting prevention HR, it is required to do well and combine well the enrollment for the fire fighting prevention HR training with the recruitment of the fire fighting prevention HR, reasonable balance between enrolling learners inherently being high
school pupils who were well-trained in fire fighting prevention from the beginning with enrolling learners who graduated majors other than fire fighting prevention, between the learners trained in theory and the ones trained in skills and practice. (iii) as for the training content and training methods, in order to improve the efficiency of the fire fighting prevention HR training to meet the actual requirements, training content, and the training, fostering programs as well as training methods must be built and innovated appropriately with each trained object towards diversification, intensiveness, specialization and professionalism based on the actual need for human resource and fire fighting prevention facilities, as well as attaching importance to thinking capacity, focusing on practical skills, improving self-training ability, self finding issues and solutions towards bringing activeness and creativity of learners into full play in study and reality; (iv) it is required to regularly pay attention to building up teachers and training managers sufficient in quantity, with high professional qualification, able to do scientific researches and approach to advanced training methods; (v) learners play an important role in the fire fighting prevention HR training, so to obtain the best training results, the training facilities must form the learners an attitude and habit of activeness, positiveness and creation in study and awareness of complying with instruction principles in the training process; (vi) in order to serve the training with the motive "learning by doing", the training facilities not only have to invest in modern infrastructure, equipment appropriate with the nature, tasks of the fire fighting prevention force but also have to create conditions for learners to practice in such an environment, situation as true to reality as possible; And (vii) in order to successfully build modern training facilities and full time fire fighting prevention force in different formats to meet increasing need in both quantity and quality, meeting local and directly concerning demand of localities and major areas, apart from investment resources from the State, it is extremely important and significant to push up the socialization of the fire fighting prevention HR training, especially for
such developing countries which are limited to resources, but with a huge demand for fire fighting prevention HR training as Vietnam country.

Overall, in recent years, before the growing requirements of the economy and society on ensure safety in fire and explosion protection, the fire fighting prevention in Vietnam has achieved some notable results: training scale and majors are expanded, material facilities and equipment are significantly improved, training methods and content of the training programs are unceasingly innovated and improved, quality of the teachers increases day by day and the graduates can undertake fire fighting prevention work in reality. However, the training of the Official Fire Fighting Prevention University still has some outstanding issues such as in term of mechanism, policies and training conditions; the material facilities have been improved but is still relatively weak compared to other developed countries in the world, training methods have not really been effective and the team of teachers is still relatively thin. Therefore, the author recommended some solutions to improve the quality and efficiency of the fire fighting prevention police HR training, in particular the training at the Official Fire Fighting Prevention University on the basis of overcoming the outstanding issues related to the decisive factors of the university's training quality. In which, factors of policies, training conditions, teaching methods and contents as well as financial and human factors (including teachers, training managers and learners) play an important role in promoting the training efficiency in a new socio-economic context of the 21st century.