

# 2017

Annual Report

TREIF

2017



TREIF

財團法人住宅地震保險基金  
Taiwan Residential Earthquake Insurance Fund

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財團法人住宅地震保險基金



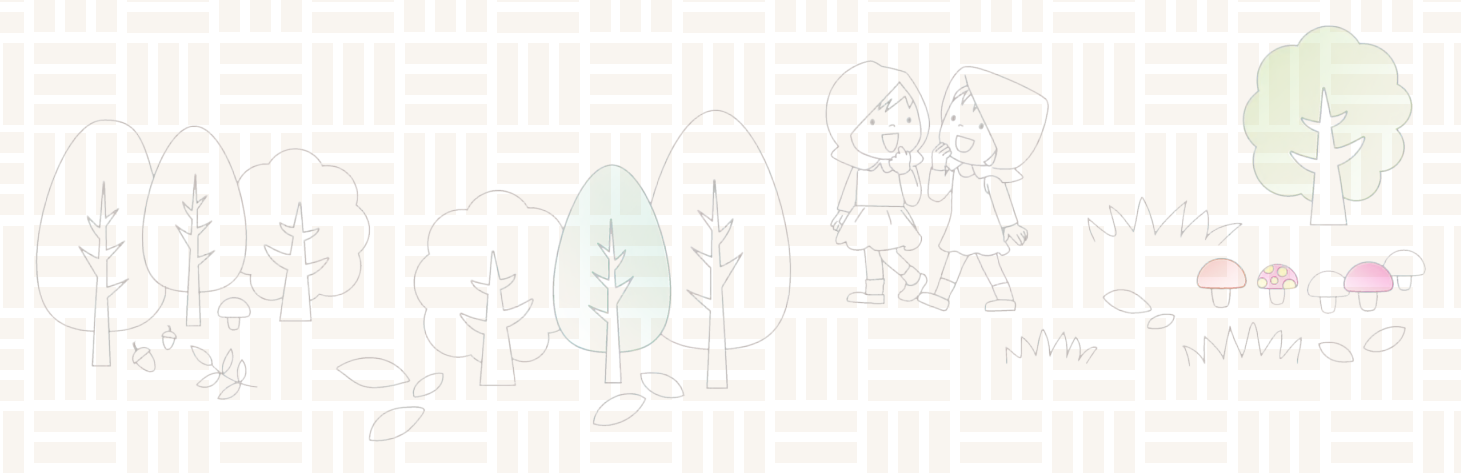




新竹市港南國小  
古謹睿  
古宗民



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董事長 陳明仁

## 序言

2018年2月6日深夜花蓮地區發生芮氏規模6.0地震，造成17人死亡、285人輕重傷，4棟大樓傾斜受損，是臺灣繼2016年臺南地震後最嚴重的一起地震，兩起地震正好相隔兩周年，也讓國人再次痛徹心扉。

本基金為住宅地震保險制度之中樞組織，在0206花蓮震災發生後，立刻進駐啟動緊急應變機制以確實掌握受損建築物地址，比對保戶資料庫，迅速將第一批篩檢結果提供給產險公司，使其全力動員主動尋找建築物受損保戶，處理本保險理賠相關事宜，產險公司災後14小時內即主動給付第一筆臨時住宿費用，災後18小時內即已給付30筆臨時住宿費用予受災保戶，2月8日並給付第一筆保險理賠金；地震險理賠快速，舉世少見，充分發揮本保險安撫人心之政策性宗旨。

為了加速地震險理賠，展現政府照顧民眾之美意，本基金每年持續辦理合格評估人員、災區理賠/聯合理賠服務中心進駐人員訓練及建築師、專業技師講習會，並辦理住宅地震保險理賠機制模擬演練，協助各簽單公司進行各種情境狀況演練，熟悉本保險理賠相關作業，俾達成迅速理賠之目標。

2017年本基金主動爭取主辦第11屆世界巨災論壇（World Forum of Catastrophe Programmes）會議，出席會員國家包括來自美國、西班牙、冰島、羅



臺東縣 仁愛國小 張紋瑄、許郁嫻、林昱萱、韓繡憶





2017.09.25-28世界巨災論壇會議合影（金管會黃副主委天牧（中）與來賓合照）

馬尼亞、瑞士、挪威、法國、英國、加勒比海地區及我國共10國11個天災保險管理機構代表，三天議程，各國踴躍發表該國制度近況及新興天災保險制度介紹，交流彼此之管理經驗，本基金並安排臺灣特殊地質地貌考察，會議圓滿成功，建立國際良好友誼關係。

為提升國人地震防災風險意識並強化地震防災觀念，本基金每年皆致力推廣各項宣導活動，包括民眾、通路及學校宣導等。2017年與南投縣、嘉義縣、新竹市、基隆市及臺東縣等五縣市政府合作辦理國中小學地震教育藝文競賽等活動，約有500所學校，7,000個班級參加，宣導效益極佳。另辦理網路及實體活動，透過臉書貼文及有獎徵答，與粉絲及民眾互動，增加其對本保險之正確認知，進而提高本保險之曝光度。

截至2018年2月底止，本保險投保率為33.85%，有效保單件數已達2,912,430件，累積之各項準備金餘額為271.5億元。此外，本基金極力與再保經紀人及再保人磋商，最近三年超額賠款再保合約之費率經積極議價調降逾30%，三年撙節之再保費支出累計達3億4,167萬元，對加速本基金特別準備金之累積有極大助益。未來，本基金將持續檢討及強化本保險制度，並積極辦理各項宣導活動，加強民眾地震防災風險意識，提高本保險投保率，落實本保險提供民眾基本財產保障之政策性目標。

董事長 **陳明仁**



2017.09.25-28世界巨災論壇會議參訪行程合影

## Preface

A magnitude 6.0 earthquake on February 6, 2018 in Taiwan's Hualien County claimed 17 lives, caused 285 wounded and 4 collapsed buildings. This is the worst earthquake in Taiwan since the one that occurred in 2016 in Tainan. Both earthquakes coincidentally happened with two years interval. Both left Taiwanese people with broken hearts.

The Taiwan Residential Earthquake Insurance Fund (TREIF) plays a pivotal role in earthquake-related insurance. On the first instance after the February 6 Hualien earthquake, TREIF immediately moved in the office and launched an emergency response mechanism to obtain the addresses of the damaged buildings and to compare with the database of our policyholders. The first batch of information was given to the Non-life insurers, so that they could reach the policyholders by themselves, and deal with the insurance claim settlements. Within 14 hours after the earthquake, Non-life insurers were able to grant the first contingent living expenses to policyholders. And 18 hours after the earthquake, 30 policyholders obtained their contingent living expenses. The first insurance claim was

paid on February 8. Claim settlements for earthquakes are extraordinary efficient, which is rarely seen in the world. This shows that TREIF fully brought into full play its functions of appeasing people.

In order to speed up insurance claims and show the government's good intentions, TREIF organizes each year the training programs for qualified adjusters, personnel for disastrous areas claims / Joint Claim Service Centers, architects and professional engineers. TREIF also holds claim simulation drills and helps insurers proceed through all kinds of situations. It also helps all related parties in being accustomed to administration procedures related with insurance claims in order to fulfill the goal of efficiently providing service to policyholders.

In 2017, TREIF organized the 11th World Forum of Catastrophe Programmes. Participants came from the US, Spain, Iceland, Romania, Switzerland, Norway, France, United Kingdom, the Caribbean region and Taiwan. From these 10 countries, there were representatives of 11 natural disaster management institutions. During the





臺東縣 馬蘭國小 劉冠育、陳榮聖

3-day conference, each country enthusiastically presented their respective institutions and their latest catastrophe insurance programs. Abundant exchanges on management were made. TREIF also arranged outdoor Taiwan geological expedition and field research. The conference was a success, and good friendship was built.

TREIF is also committed to organizing a series of events aimed at reinforcing locals' awareness on earthquakes. Artistic and cultural activities about enhancing awareness on earthquake risks were held in nearly 500 junior high schools and elementary schools in five cities and counties, namely Nantou County, Chiayi County, Hsinchu City, Keelung City and Taitung County. The activities, which benefited around 7,000 classes of students, were organized with the help of the city and county governments. Other activities were held online, as well as face-to-face activities. TREIF managed to interact with Internet users through

Facebook with various posts and quiz games. This also helped enhance people's knowledge on the earthquake insurance, and increase TREIF's exposure.

Till the end of February 2018, the earthquake insurance take-up rate is 33.85% with 2,912,430 policies in force, with a balance of NT\$27.15 billion reserves. Besides, TREIF is making an utmost effort to negotiate with reinsurance brokers and reinsurers. The excess of loss reinsurance contract's rate has dropped over 30% following intense negotiations over three years, resulting in a saving of reinsurance expenditure amounting to NT\$341.67 million. This was of great help in TREIF accumulating its special reserve. In the future, TREIF will keep on examining and strengthening its insurance program to increase the take-up rate, and implement its statutory goals of providing basic protection to safeguard people's properties.

Chairman *Ming Jen Chen*







## 設立緣起

1999年9月21日發生於南投集集芮氏規模7.3的大地震（又稱921集集地震），舉國傷痛難忘。政府為建立地震保險，隨即於1999年底提出「保險法部份條文修正草案」，增訂保險法第一三八條之一，明訂保險業應承保住宅地震危險，並納入建立地震危險承擔機制之規定。保險法修正條文於2001年7月9日公布，我國政策性住宅地震保險制度之於焉建立。

2001年11月30日主管機關依據保險法第一三八條之一規定，頒訂「住宅地震保險共保及危險承擔機制實施辦法」，運作方式為經由各產物保險公司承保之住宅地震保險全數分予當時為國營之專業再保險公司－中央再保險公司，該公司接受後再分予國內保險業、地震保險基金、國外再保險業及政府等分層承擔，總危險承擔限額為新臺幣500億元，明確建構我國住宅地震保險危險承擔機制。

2002年4月1日起於財產保險業現有之住宅火災保險單下擴大保障住宅地震基本保險，每戶保險金額最高新臺幣120萬元，採全國單一費率，每年每單保費新臺幣1,459元（自2009年4月1日起每年每單保費調降為新臺幣1,350元）。保障範圍為承保住宅因地震震動或地震所引起之火災、爆炸、山崩、地層下陷、滑動、開裂、決口或地震引起之海嘯、海潮高漲、洪水等事故導致之全損。

本保險制度實施初期之全損定義係指符合下列情事者：指經政府機關或專門之建築、結構、土木等技師公會出具證明鑑定為不堪居住必須拆除重建或非經修建不能居住且補強費用為重建費用百分之五十以上者。



2017.08.31模擬演練檢討會暨頒獎典禮（董事長陳明仁及董事王麗惠與獲獎同業合照）

## Origins and Development

On September 21, 1999, a magnitude 7.3 earthquake, known as the “Chi-Chi” or “921” earthquake, struck Nantou County in central Taiwan, causing a great disaster which the people of Taiwan will never forget. The earthquake prompted the government to set up an earthquake insurance and hence at the end of 1999, the competent authority introduced amendments to Article 138-1 of the Insurance Act to include provisions on underwriting residential earthquake insurance by the insurers and establishment of a mechanism for assuming earthquake risk. The amendment of Insurance Act was promulgated on July 9, 2001, and the Taiwan residential earthquake insurance program came into existence.

In accordance with Article 138-1 of the Insurance Act, the competent authority announced the “Enforcement Rules for Coinsurance and Risk Assumption Mechanism of Residential Earthquake Insurance” on November 30, 2001. The rules stipulate all residential earthquake insurance policies issued by non-life insurers to be ceded to Central Reinsurance Corporation (Central Re), a then state-owned reinsurer which in turn spread the risk to domestic non-life insurers, TREIF, foreign reinsurers and the government with the limit of total risk assumption set at NTD50 billion. The structure of the residential earthquake insurance risk assumption mechanism was thus established.

Effective from April 1, 2002, all residential fire insurance policies issued must expand the coverage to include the basic residential earthquake insurance, with a maximum sum insured of NTD1.2 million per household. The annual flat premium was set at NTD1,459 (reduced to NTD1,350 starting from April 1, 2009). The scope of coverage includes total loss of insured residential building due to earthquake shake, or fire, explosion, landslide, land subsidence, land movement, land fissure, land rupture, or tsunami, sea surge and flood caused by an earthquake or its seismic activity.

During the initial implementation stage of the residential earthquake insurance, “total loss” refers to any case in which the following condition is met upon being determined and certified by a government agency or a professional association for architecture, building structure, civil engineering or alike that the residence is uninhabitable or the repair costs would equal or exceed 50% of the replacement cost.

On December 1, 2005, the competent authority promulgated the amended “Enforcement Rules for Coinsurance and Risk Assumption Mechanism of Residential Earthquake Insurance,” adjusting the risk assumption system from four tiers to two tiers. The first NTD2 billion of the NTD50 billion liability in the first tier was assumed by the residential earthquake Co-insurance Pool, and the remaining NTD48 billion liability in the second tier was assumed and/or ceded by TREIF. The maximum risk assumption of residential earthquake insurance was raised from NTD50 billion to NTD60 billion in 2007.

In accordance with revisions to Article 138-1 of the Insurance Act on July 18, 2007, TREIF was granted the responsibility for managing the risk spreading mechanism, which was set up by the competent authority. On November 26, 2007, under the amendment for the Insurance Act, the “Enforcement Rules for the Coinsurance and Risk Assumption Mechanism of Residential Earthquake Insurance” was renamed as the “Enforcement Rules for the Risk Spreading Mechanism of residential Earthquake Insurance”. Since 2008, all residential earthquake insurance underwritten by non-







2017.06.29宜蘭大學模擬演練

2005年12月1日主管機關修正發布「住宅地震保險共保及危險承擔機制實施辦法」，將危險承擔機制由四層改為二層。第一層新臺幣20億元，由住宅地震保險共保組織承擔，超過新臺幣20億元以上之新臺幣480億元，由地震保險基金承擔及分散。自2007年起將住宅地震保險之危險承擔限額，由新臺幣500億元調高至新臺幣600億元。

2007年7月18日保險法第一三八條之一修正，明訂地震保險基金負責管理主管機關建立之危險分散機制，並於2007年11月26日配合保險法修正將「住宅地震保險共保及危險承擔機制實施辦法」更名為「住宅地震保險危險分散機制實施辦法」。自2008年起，各產物保險公司承保之住宅地震保險業務須全部分予地震保險基金，地震保險基金接受所有危險後再予承擔及分散，建構完成現行住宅地震保險營運模式。

2008年12月30日主管機關修正發布「住宅地震保險危險分散機制實施辦法」，將住宅地震保險危險分散機制危險承擔限額自2009年起提高至新臺幣700億元。2012年1月1日起，住宅地震基本保險之保險金額調高為最高新臺幣150萬元，臨時住宿費用調高為新臺幣20萬元，費率仍為新臺幣1,350元。本保險保單條款中關於「地震」之定義修正為：我國或其他國家之地震觀測主管機關觀測並記錄之自然地震，以擴大因海嘯致本保險住宅建築物遭受損壞之保障範圍。另「全損」定義修正為：「全損」係指符合下列情事之一者：一、經政府機關通知拆除、命令拆除或逕予拆除；或二、經本保險合格評估人員評定、或經建築師公會或結構、土木、大地等技師公會鑑定為不堪居住必須拆除重建、或非經修復不適居住且修復費用為危險發生時之重置成本百分之五十以上者。



2017.06.29宜蘭大學模擬演練

life insurers has been ceded to TREIF, which then retained or transferred the risk, thus laying the foundation for the current residential earthquake insurance operation.

On December 30, 2008, the competent authority promulgated the revised "Enforcement Rules for the Risk Spreading Mechanism of Residential Earthquake Insurance," raising the risk assumption limit of the residential earthquake insurance's risk spreading mechanism to NTD70 billion starting in 2009. The maximum sum insured per subject matter insured under the residential earthquake insurance has been increased to NTD1.5 million effective from January 1, 2012, and the maximum contingent living expense has also been increased to NTD200,000. Meanwhile, the annual flat premium for the insurance maintains at NTD1,350 per policy. The definition of "earthquake" under the policy has been revised as natural earthquake, which is observed and recorded by the seismic observatory competent authority of Taiwan and other nations to extend to cover any loss or damage caused by the tsunami. The definition for the term of "total loss" has also been revised, referring to any of the following conditions - (1) The subject matter insured is demolished as informed, ordered or acted by the government agency; or (2) The subject matter insured has been assessed by a qualified adjuster, or by an association of professional architect, structural engineer, civil engineer, or geotechnical engineer, that the insured building has been assessed uninhabitable and in need of demolition and rebuilding; or has been assessed that it could be inhabitable after repairing and the repairing cost equals to or exceeds 50% of the replacement cost at the time when the insured risk occurs.







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為因應未來發生大規模地震或第二次地震時可能需重新安排不同起賠點之再保險保障，有助於本保險制度順利運作，自2013年1月1日起危險分散機制各層危險承擔限額調整如次：

第一層：新臺幣30億元危險部分，由住宅地震保險共保組織承擔。

第二層：新臺幣670億元危險部分，由地震保險基金承擔及分散，並依下列方式辦理：

- (一) 新臺幣530億元以下部分，由地震保險基金視業務需要及市場成本狀況，安排於國內、外再保險市場或資本市場分散或自留，前述危險分散方式，應報經主管機關備查；修正時，亦同。
- (二) 超過新臺幣530億元至新臺幣670億元部分，仍由政府承擔，損失發生時由主管機關編列經費需求報請行政院循環預算程序辦理。

## 政府

新台幣 **140** 億元  
(美金 **4.7** 億元)

## 地震保險基金

新台幣 **160** 億元  
(美金 **5.3** 億元)

## 再保險市場

新台幣 **200** 億元  
(美金 **6.6** 億元)

## 地震保險基金

新台幣 **170** 億元  
(美金 **5.6** 億元)

## 住宅地震保險共保組織

新台幣 **30** 億元  
(美金 **1** 億元)



2017.09.25-28世界巨災論壇會議參訪行程合影

In preparation for any future large-scale earthquake and / or second earthquake which may require the reinsurance protection of different trigger points as well as in making sure the smooth operation of the program, the risk liabilities for each tier have been adjusted, effective from January 1, 2013, as follows:

Tier 1: NTD3 billion undertaken by the Co-insurance Pool.

Tier 2: NTD67 billion undertaken by TREIF. This portion of the risk should be assumed or spread in the following manner:

- (1) The portion equal and up to NTD53 billion shall be spread in domestic, and/or overseas reinsurance markets and/or capital markets and/or retained by TREIF in accordance with business needs and/or market costs. The aforementioned risk spreading mechanisms shall be reported to the competent authority for recordation. The preceding provision also applies to any subsequent changes thereto.
- (2) The portion over NTD53 billion and up to NTD67 billion shall be assumed by the government. When a loss occurs, the competent authority shall prepare a funding requirement report and submit it to the Executive Yuan, which shall handle funds appropriation in accordance with the budget process.

## Government

NTD **14** billion  
(USD **0.47** billion)

## TREIF

NTD **16** billion  
(USD **0.53** billion)

## Reinsurance Markets

NTD **20** billion  
(USD **0.66** billion)

## TREIF

NTD **17** billion  
(USD **0.56** billion)

## Residential Earthquake Co-Insurance Pool

NTD **3** billion  
(USD **0.1** billion)

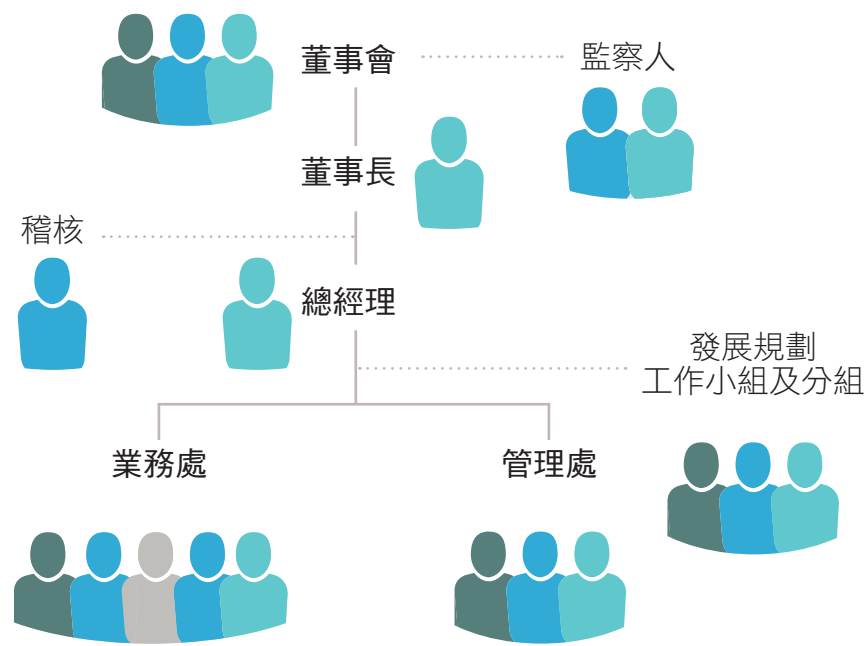




組織概況

財團法人住宅地震保險基金（以下簡稱地震保險基金）係屬公益財團法人，不具營利性質，於2002年1月17日正式成立，成為繼日本及土耳其之後，亞洲第三個由國家主導而成立之政策性住宅地震保險機構。

■ 組織架構圖



◆ 董事會

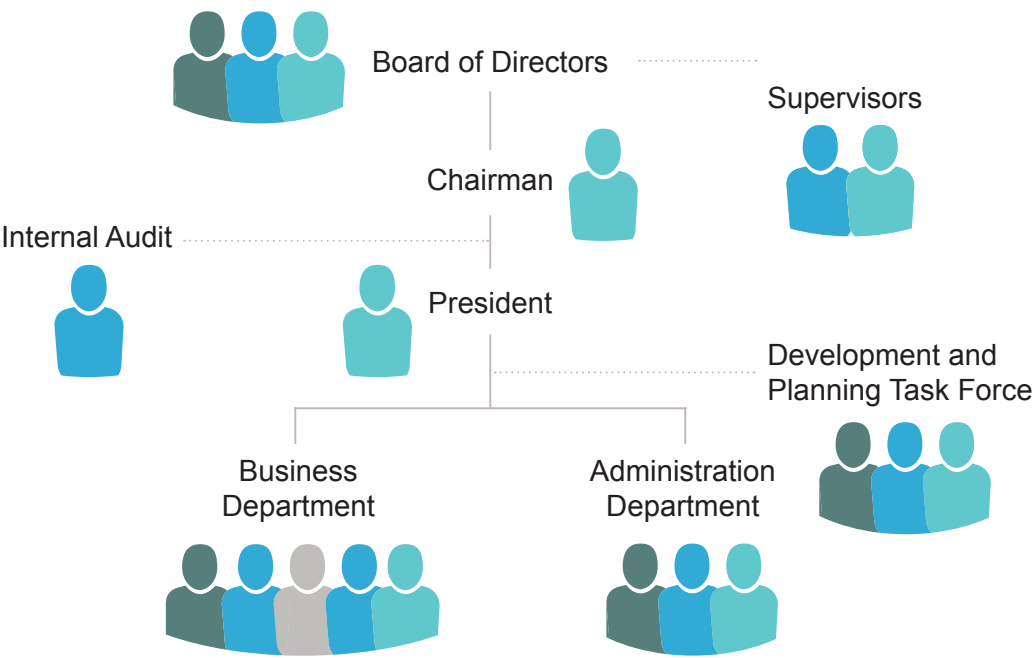
董事會為地震保險基金最高決策單位，董事長為地震保險基金之代表人，董事會由董事十一人組成，均由主管機關自下列人員聘任之：

- 目的事業主管機關代表三人。
- 財政部國庫署代表一人。
- 目的事業主管機關指定之專家學者三人。
- 住宅地震保險共保組織會員代表三人。
- 地震保險基金總經理。

Organization

Taiwan Residential Earthquake Insurance Fund (TREIF) is a public service, non-profit organization officially established on January 17, 2002. It is the third national residential earthquake insurance organization initiated by government in Asia, following the examples of Japan and Turkey.

■ TREIF Structure



◆ Board of Directors

The Board of Directors is TREIF's highest decision-making body. The chairman is the legal representative of TREIF. The Board of Directors comprises 11 members appointed by the competent authority:

- Three representatives from the competent authority.
- One representative from the National Treasury Agency, Ministry of Finance.
- Three experts / scholars.
- Three representatives from the Residential Earthquake Co-insurance Pool.
- President of TREIF.







### ◆ 監察人

地震保險基金目前設置監察人三人，由目的事業主管機關聘任，監督地震保險基金之業務及財務狀況。

### ◆ 稽核

地震保險基金為健全業務發展、確保財務及管理資訊正確、完整，特制定「財團法人住宅地震保險基金內部控制及稽核制度實施辦法」，並於2014年設立專任稽核，隸屬董事會，以超然獨立之精神負責稽核業務之規劃及執行，並定期評估各單位自行查核辦理績效。

### ◆ 住宅地震保險制度發展規劃工作小組

2008年3月成立住宅地震保險制度發展規劃工作小組，其下設危險分散與費率、承保理賠與法制及資訊統計與教育推廣等三個工作分組，協助地震保險基金檢討改善現行保險制度，強化地震保險基金中樞組織之功能。該工作小組由地震保險基金總經理擔任總召集人，工作小組委員由地震保險基金延聘產、官、學界之專家學者及地震保險基金人員組成。

### ◆ 業務範圍

依「財團法人住宅地震保險基金捐助章程」第七條規定地震保險基金之業務範圍如下：

- 辦理住宅地震保險之再保險、危險承擔與分散事宜。
- 收取住宅地震保險分進之純保險費、附加費用收入及資金運用收益。
- 依據財源籌措計畫向國內、外貸款或融資。
- 處理與前三款有關之其他相關業務。
- 辦理目的事業主管機關指定事項。
- 辦理符合本基金設立目的之公益活動。
- 其他依保險法或其他法令規定地震保險基金得辦理之業務。



2017.11.29地震基金全體同仁餐敘合照

### ◆ Supervisors

TREIF has three supervisors who are designated by the competent authority to supervise the business operation and financial affairs of TREIF.

### ◆ Internal Audit

In accordance with the “Enforcement Rules for Internal Control and Audit Systems of the Taiwan Residential Earthquake Insurance Fund,” an internal audit was established in 2014 under the Board of Directors to ensure the sound development of TREIF’s operations and guarantee the accuracy and integrity of financial and administrative information. The Internal Audit is responsible for auditing the business planning and execution of each department, as well as periodically appraising the results of the self-assessments performed by each department in an aloof, independent manner.

### ◆ Residential Earthquake Insurance Program Development and Planning Task Force

The Residential Earthquake Insurance Program Development and Planning Task Force was established in March 2008 to assist TREIF in improving the existing program and strengthening its core functions. It was divided into three subcommittees: Risk Spreading and Premium Rate Subcommittee, Underwriting, Claim and Legal Subcommittee, and IT, Statistics and Educational Promotion Subcommittee. The president of TREIF serves as convener of the task force, and the members are comprised of staffs of TREIF as well as experts and scholars from the private, public and academic sectors.

### ◆ Scope of Business

In accordance with Article 7 of TREIF Articles of Incorporation, the scope of TREIF’s business is as follows:

- Managing reinsurance, risk assumption and risk spreading for the residential earthquake insurance.
- Receiving pure premium ceded from residential earthquake insurance, loadings and revenue by this insurance and proceeds derived from fund utilization.
- Obtaining domestic or overseas loans in accordance with the financing plans.
- Handling other business in relation to the preceding three subparagraphs.
- Taking care of matters assigned by the competent authority.
- Organizing public welfare activities that are in line with the goals of TREIF.
- Conducting business that TREIF is permitted to undertake in accordance with the Insurance Act or other laws and regulations.





## 運作中樞

2001年11月30日主管機關頒訂「財團法人住宅地震保險基金捐助章程」及「財團法人住宅地震保險基金管理辦法」賦予地震保險基金成立之法令依據。地震保險基金成立初期，為節約支出俾快速累積基金規模，委由中央再保險公司經營管理並兼辦所有相關業務。

住宅地震保險實施初期，中央再保險公司為住宅地震保險制度之經理人，負責共保事務及國外再保安排，對住宅地震保險初期之建制作出貢獻。2002年中央再保險公司移轉民營後，考量住宅地震基本保險係政策性保險，中樞組織當由非營利機構擔任，且鑑於當時住宅地震保險制度相關法規並未明定住宅地震保險制度之中樞組織，因此承擔機制之國內產險公司或國外再保公司倘發生信用危險，致無法支付保險費或再保賠款無法攤回時，將影響本保險制度之順利運作，並損及被保險人權益，主管機關乃於2005年12月1日修正發布「住宅地震保險共保及危險承擔機制實施辦法」，將地震保險基金定位為住宅地震保險制度之中樞組織，並積極推動地震保險基金之獨立運作。

2006年7月1日地震保險基金正式獨立運作，地震保險基金之角色由單純之風險承擔與分散，轉換為制度管理之中樞組織，獨立運作後除由原中央再保險公司兼辦人員轉任外並延聘專職人員承辦相關業務，負責住宅地震保險承保、理賠機制之建立與改善、共保業務之處理、再保險安排、業務宣導、與合格評估人員及專業技師等之訓練及講習等事項。鑑於住宅地震保險為政策性保險，制度改革尤與民眾權益息息相關，因之相關議題之決策允宜周延縝密，乃於2008年3月成立住宅地震保險制度發展規劃工作小組，延聘產、官、學界之專家學者連同地震保險基金人員，以召開會議方式逐一檢討改善現行地震保險制度，並提供主管機關政策建言，以強化地震保險基金中樞組織之功能，俾符合主管機關、保險業界與投保大眾之殷切期待。



2017.08.31模擬演練檢討會暨頒獎典禮（董事長陳明仁（中）及董事王麗惠（右四）與獲獎同業合照）

## Pivotal Role in the Taiwan Residential Earthquake Insurance Program

On November 30, 2001, the competent authority announced “Taiwan Residential Earthquake Insurance Fund Articles of Incorporation”, and “Regulations Governing Taiwan Residential Earthquake Insurance Fund”, laying a legal foundation for the establishment of TREIF. To save cost and accelerate the accumulation of fund, Central Re was entrusted to manage the fund and handle all of its related business during the initial stage.

During the initial implementation stage of the Program, Central Re was designated as the program manager, responsible for managing the Co-insurance Pool and overseas reinsurance placement. It contributed greatly to the residential earthquake insurance program. Central Re was privatized in 2002. Considering that the residential earthquake insurance is a statutory insurance, it ought to be managed by a non-profit organization to avoid the possible credit risks that private insurers or reinsurers face, which could hinder the implementation of the Program and sabotage policyholders' rights. Hence, on December 1, 2005, the competent authority revised and promulgated “Enforcement Rules for the Coinsurance and Risk Assumption Mechanism of Residential Earthquake Insurance” to designate TREIF as the pivotal role of program manager and actively to promote the operational independence of TREIF.

As the result, TREIF assumed the pivotal role in Taiwan's residential earthquake insurance program and officially began independent operations on July 1, 2006. Its function no longer limited to risk assumption and risk spreading, but to cover all affairs relating to the program, including the establishment and improvement of underwriting and claim settlement mechanism, coinsurance management, reinsurance placement, business promotion, and training for qualified adjusters and professional engineers. To support the growing responsibility, relevant staffs were transferred to TREIF from Central Re and additional employees were recruited. Considering that the residential earthquake insurance is a statutory insurance, any reform of the program could significantly impact the public interest, and therefore, any future decision making must be thoroughly and meticulously evaluated. Consequently, TREIF established the Residential Earthquake Insurance Program Planning and Development Task Force in March 2008 to assist TREIF in formulating relevant policy plans for the competent authority's consideration. Combining the efforts of experts and scholars that TREIF invited from private, public, and academic sectors together with its staffs, the Task Force convened meetings to probe into improvement plans for each and individual items under the program. The Task Force strengthens the functionality of TREIF to fulfill the expectations of the competent authority, the insurance industry and the policyholders.





業務概況

承保作業

有效保單及投保概況

自2002年住宅地震保險開辦以來，住宅地震保險業務即穩定成長，截至2017年底止，有效保單件數約288萬件，以全國住宅總戶數8,602,802戶計算，投保率為33.55%，件數較前一年成長3.23%。歷年來，住宅地震保險有效保單件數、簽單保費收入及成長率詳如下表。

住宅地震保險有效保單件數及簽單保費收入

單位：新臺幣仟元

年度	有效保單件數	簽單保費收入
2002（4月~12月）	455,498	661,231
2003	859,213	1,242,788
2004	1,173,082	1,702,959
2005	1,447,545	2,101,527
2006	1,672,043	2,425,076
2007	1,872,195	2,722,298
2008	2,029,369	2,947,698
2009	2,168,528	2,951,981
2010	2,294,738	3,057,970
2011	2,390,202	3,193,562
2012	2,459,152	3,202,554
2013	2,553,337	3,336,938
2014	2,637,811	3,463,141
2015	2,707,256	3,523,412
2016	2,795,766	3,646,940
2017	2,885,973	3,805,245

註： 1. 2009年4月1日起每單保費由1,459元調降為1,350元。  
2. 2012年1月1日起保險金額由120萬元調高為150萬元。

Business Overview

Underwriting Operation

Overview of Policies in Force and Insurance Take-Up rate

Since the launch of the residential earthquake insurance in 2002, it has experienced steady growth. At the end of 2017, the total policies in force reached 2.88 million, which accounted for 33.55% of the total national households of 8.60 million, up by 3.23% when compared with previous year. A more detailed data of the written premium income and policies in force over the past years are listed in the following charts:

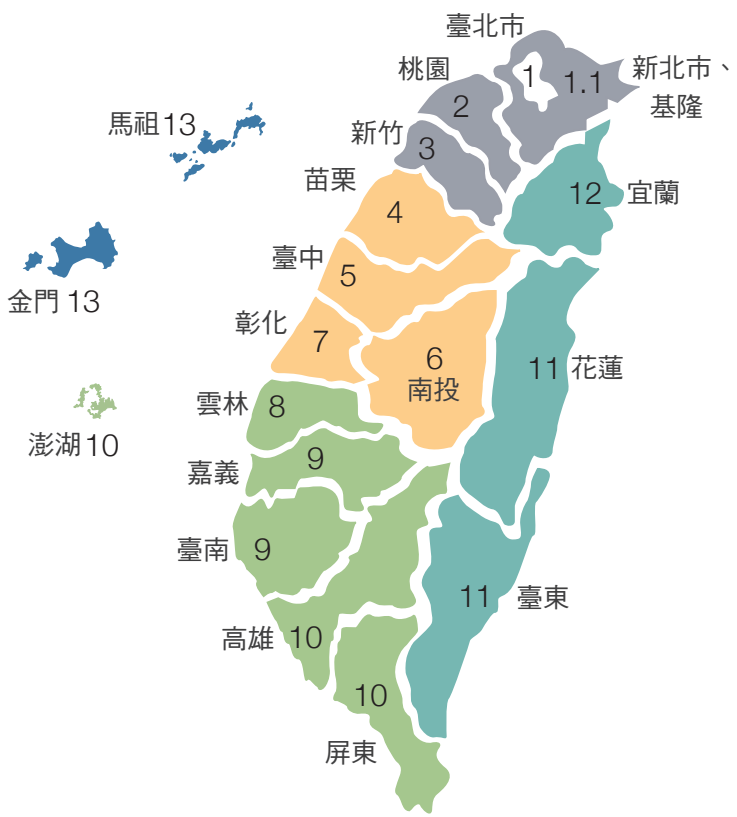
Taiwan Residential Earthquake Insurance  
Policies in Force and Written Premium

Unit: NTD1,000

Year	Policies In Force	Written Premium
2002 (April-December)	455,498	661,231
2003	859,213	1,242,788
2004	1,173,082	1,702,959
2005	1,447,545	2,101,527
2006	1,672,043	2,425,076
2007	1,872,195	2,722,298
2008	2,029,369	2,947,698
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2010	2,294,738	3,057,970
2011	2,390,202	3,193,562
2012	2,459,152	3,202,554
2013	2,553,337	3,336,938
2014	2,637,811	3,463,141
2015	2,707,256	3,523,412
2016	2,795,766	3,646,940
2017	2,885,973	3,805,245

Note: 1. Effective from April 1, 2009, the annual flat premium has been reduced from NTD1,459 to NTD1,350 per policy.  
2.Effective from January 1, 2012, the maximum sum insured has been increased from NTD1.2 million to NTD1.5 million per policy.





◆ 累積責任額及投保率

截至2017年12月31日止住宅地震保險全國累積責任額達新臺幣4兆7,576億元，累積責任額較高區域為臺北市、新北市（含基隆）、桃園、新竹、臺中及高屏等都會區；投保率以新竹以北地區及臺中較高，全國投保率最高區域為新竹，達41.14%。



◆ Cumulative Liability & Insurance Take-Up Rate

As of December 31, 2017, the cumulative liability of Taiwan's residential earthquake insurance amounted to NTD 4.7576 trillion. Cities with higher amount of cumulative liability were metropolitan cities like Taipei City, New Taipei City (including Keelung), Taoyuan, Hsinchu, Taichung, and Kaohsiung-Pintung. The take-up rates were higher in cities north of Hsinchu and in Taichung. The highest take-up rate of 41.14% was reported in Hsinchu.

住宅地震保險累積責任額及投保率

地 區	累積責任額 (新臺幣元)	累積責任額 比率 (%)	有效保單 件數 ( 件 )	住宅戶數 ( 戶 )	投保率 (%)
1 臺北市	583,334,988,778	12.26%	357,902	947,045	37.79%
1.1 新北市、基隆	1,153,955,851,213	24.26%	696,802	1,764,629	39.49%
2 桃園	556,258,987,145	11.69%	333,243	818,845	40.70%
3 新竹	245,216,516,971	5.15%	148,849	361,790	41.14%
4 苗栗	82,653,155,482	1.74%	49,905	178,294	27.99%
5 臺中	622,560,474,185	13.09%	376,536	1,002,977	37.54%
6 南投	58,394,434,128	1.23%	36,296	166,507	21.80%
7 彰化	133,789,632,737	2.81%	80,645	403,586	19.98%
8 雲林	64,158,388,102	1.35%	38,463	222,926	17.25%
9 嘉義、臺南	428,114,157,513	9.00%	260,118	963,384	27.00%
10 高雄、屏東、澎湖	660,498,344,982	13.88%	403,738	1,376,518	29.33%
11 花蓮、臺東	79,277,273,467	1.67%	48,731	200,080	24.36%
12 宜蘭	81,693,650,806	1.72%	50,044	173,203	28.89%
13 金門、其他列嶼	7,651,732,940	0.16%	4,701	23,018	20.42%
合計	4,757,557,588,449	100%	2,885,973	8,602,802	33.55%

Taiwan Residential Earthquake Insurance Cumulative Liability & Take-up Rates

CRESTA Zone	Cumulative Liability ( NTD )	Ratio ( % )	Policies in Force	Households	Take-Up Rate(%)
1 Taipei City	583,334,988,778	12.26%	357,902	947,045	37.79%
1.1 New Taipei City, Keelung	1,153,955,851,213	24.26%	696,802	1,764,629	39.49%
2 Taoyuan	556,258,987,145	11.69%	333,243	818,845	40.70%
3 Hsinchu	245,216,516,971	5.15%	148,849	361,790	41.14%
4 Miaoli	82,653,155,482	1.74%	49,905	178,294	27.99%
5 Taichung	622,560,474,185	13.09%	376,536	1,002,977	37.54%
6 Nantou	58,394,434,128	1.23%	36,296	166,507	21.80%
7 Changhua	133,789,632,737	2.81%	80,645	403,586	19.98%
8 Yuanlin	64,158,388,102	1.35%	38,463	222,926	17.25%
9 Chiayi, Tainan	428,114,157,513	9.00%	260,118	963,384	27.00%
10 Kaohsiung, Pintung, Penghu	660,498,344,982	13.88%	403,738	1,376,518	29.33%
11 Hualien, Taitung	79,277,273,467	1.67%	48,731	200,080	24.36%
12 Yilan	81,693,650,806	1.72%	50,044	173,203	28.89%
13 Kinmen and other isles	7,651,732,940	0.16%	4,701	23,018	20.42%
Total	4,757,557,588,449	100%	2,885,973	8,602,802	33.55%





### ◆ 辦理住宅地震保險業務稽查

為期住宅地震保險共保組織會員公司能確實遵循住宅地震保險相關規範辦理本保險業務，地震保險基金依據「住宅地震保險業務稽查作業規定」，成立稽查督導小組、選定稽查公司、擬定稽查底稿、通知稽查、執行稽查、撰寫稽查報告書，並將稽查意見、缺失及缺失改善情形製成稽查報告書後，函報主管機關。

### ■ 理賠作業

### ◆ 檢討住宅地震保險全損定義

#### (一) 研議緣由

0206臺南地震及地震引起之土壤液化造成臺南地區多處住宅建築物毀損災害，爰探討土壤液化造成之住宅全損，並檢討住宅地震保險全損定義中「不適居住」、「不堪居住」之定義。

#### (二) 結論與建議：

1. 土壤液化所造成房屋傾斜可經修復而復原，復原費用是否達重置成本50%，需視個案所使用之工法及其建築物重置成本而定。
2. 目前全損定義包含「不堪居住必須拆除重建」及「非經修復不適居住」等文字，理賠後，被保險建築物是否需實質拆除重建或修復，恐生疑義，建議於相關辦法修訂。
3. 「其他類型」及「鋼骨或鋼骨鋼筋混凝土造」二類型建築物：  
其「非經修復不適居住且修復費用為危險發生時重置成本百分之五十」之評估，需仰賴工程專業，為免評定爭議，建議修正評估方式為：委託建築師/專業技師鑑定，並依其鑑定報告作為全損認定依據。
4. 現行各類型建築物之評定及鑑定基準條文採相互參照，易生混淆誤解，建議修正相關條文。
5. 新增「大地工程受損影響評定鑑定工作底稿」，由專業技師/建築師填寫，納入其鑑定報告。



嘉義縣 民雄國中 蕭伊秀

### ◆ Auditing of Residential Earthquake Insurance Business

To ensure that the Co-insurance Pool members are complying with the rules and guidelines related to the residential earthquake insurance when operating the business, TREIF formed an auditing team every year in accordance with the “Operating Rules for the Auditing of Residential Earthquake Insurance Business” to identify the company to be audited, develop an audit plan, implement the audit, and prepare an audit report containing audit opinions and improvement plans to submit to the competent authority.

### ■ Claim Operation

### ◆ Examining the definition of total loss for the residential earthquake insurance

#### 1. Background of the study

The February 6 Tainan Earthquake and the soil liquefaction caused damage to several residential buildings in the Tainan area. The issue of soil liquefaction was studied, and the definitions for “unsuitable for inhabiting” and “may not be for inhabiting” were examined.

#### 2. Conclusions and Recommendations

1. Building inclinations caused by soil liquefaction can be repaired. Whether the repair cost reaches 50% of the replacement cost would depend on the construction method of each individual case and its replacement cost.
2. The current definition of total loss of residential building includes “uninhabitable and in need of demolition and rebuilding; and it could be inhabitable after repairing”. It is suggested that the concerned legislations procedures be amended to decide whether an insured building should need to be dismantled, rebuilt or repaired.
3. In the two categories of buildings, such as “others” and “made with steel construction or steel reinforced concrete”, the criteria of “not suitable for inhabitation unless undergoing repair, and the repairing cost equals to or exceeds 50% of replacement cost at the time of loss” would need professional engineering evaluations. In order to avoid disputes during evaluations, it is suggested that the evaluations be modified as follows: the identification should be performed by an architect/professional engineer, and the total loss of a residential building should be evaluated in accordance with the assessment report.
4. Current total loss claim criterias of various structures take each other as reference, it thus easily cause confusion. It is suggested that related clauses be amended.
5. Addition of “the evaluation and assessment worksheet for geotechnical engineering loss”. The worksheet should be filled by a professional engineer/architect, and it should be included in his assessment report.





## ◆ 研議如何防止本保險理賠詐欺

### (一) 研議緣由

參採各國住宅地震保險制度之經驗，本保險在承保、全損評定及鑑定與理賠流程仍有發生詐欺之可能，故重新檢視本保險相關辦法、要點、作業程序及簽單公司核保、理賠作業等，提出詐欺防治之建議。

### (二) 結論及建議

#### 1. 全損評定及鑑定基準之檢討

- (1) 就受損最嚴重樓層之評定鑑定，排除違建加蓋。
- (2) 就地震引起之土壤液化損失，檢討全損之定義。

#### 2. 理賠作業之檢討：

- (1) 訂定鑑定報告制式內容，納入與專業技師/建築師公會簽訂之委託鑑定合約書。
- (2) 建議簽單公司將理賠詐欺樣態納入其內部理賠作業規範之檢核項目。
- (3) 辦理詐欺防治訓練以及災後業務稽查。
- (4) 為輔助比對無明顯地標之全倒房屋，於災後蒐集建管單位之建物緊急鑑定紅單資訊。

#### 3. 承保作業之檢討

- (1) 就非貸款新保案件，未來研議由簽單公司事前查勘之可行性。
- (2) 建立賠案資料庫供簽單公司檢核。

## ◆ 辦理理賠機制模擬演練

(一) 地震保險基金每年辦理理賠機制模擬演練，主要在協助各簽單公司相關人員熟悉住宅地震基本保險理賠作業，俾地震損害發生時能迅速自行動員其公司人員，正確且有效率地給付保險金予受災保戶，以發揮本政策性保險安撫人心之作用，簽單公司亦因善盡其企業社會責任進而提升其公司之無形商譽價值。

(二) 2017年度理賠機制模擬演練依2016年模擬演練檢討事項以及0206臺南地震理賠處理經驗與改善建議辦理，並經主管機關、簽單公司及本基金於宜蘭辦理下列情境狀況演練，其方式及演練成效如下表所示：

## ◆ Reviewing how to prevent insurance claim frauds

### 1. Background of the study

Based on the experiences of earthquake insurance systems around the world, this insurance policy also implies the possibilities of insurance claim frauds upon total loss evaluations and assessments as well as the claim settlement procedures. Therefore the measures, strongpoints, operating procedures and insurance underwriting, claim settlement procedures have to be re-examined.

### 2. Conclusions and Recommendations

#### 1. Review on total loss evaluation and assessment basis

- (1) Exclusion of illegal constructions and rooftop add-ons in the evaluation and assessment of the worst-hit building level.
- (2) Review of the definition of total loss caused by soil liquefaction after an earthquake.

#### 2. Review of the claim settlement procedures:

- (1) Designate a standard content for an assessment report to be included in assessment commission contract signed with professional engineer/architect associations.
- (2) Suggest that insurers include the insurance claim fraud patterns in the checking and reviewing items of its internal claim settlement procedures.
- (3) Organize trainings against claim settlement frauds and post-disaster activity audit.
- (4) Gather intelligence on post-disaster priority evaluation cases in order to assist in the comparison of the to tally collapsed residences when it's difficult to identify the collapsed buildings.

#### 3. The review on underwriting

- (1) Suggesting on the possibility for insurers to do a beforehand survey on non-mortgage, new policy cases.
- (2) Establish a claim database for insurers to check and review.

## ◆ Claim Simulation Drill

1. TREIF holds a claim simulation drill every year. This aims at helping insurers to familiarize with the insurance claim procedures of TREIF, so that their own personnel could be swiftly dispatched during a disaster and appropriately settle the claims to the stranded ones in an efficient way. This could appease people's mood, and bring a positive image to insurers as an enterprise that is responsible toward the society.
2. The claim settlement simulation drill of 2017 being modified from the 2016 drill, and taking experiences from the February 6 Tainan Earthquake claim settlements. It was held in Yilan with the related authorities, insurers and TREIF. The situations encountered, methods and results are listed as follows:







## 地震災害事件實際模擬演練

情境狀況：

假設臺灣東部米崙斷層錯動發生芮氏規模 6.9 地震

## 演練成效

第一階段

## 演練方式

- 1** 災情彙整/緊急應變：
- 內部會議
- 緊急會議：
- 召集各簽單公司報告災損
  - 協調統合資源

- 各簽單公司於地震發生第一時間啟動各自緊急應變計畫、召開內部會議討論其緊急應變計畫及須協助事項。

- 地震保險基金於地震發生第一時間啟動本基金緊急應變計畫，召開內部會議，報告災損情形及各項作業執行狀況。

- 地震保險基金召開緊急會議，協調統合資源。

第二階段

- 2** · 通報回報演練

- 各簽單公司理賠主管於第一時間迅速回覆，並動員所屬合格評估人員及進駐人員報到。

第三階段

- 3** · 實地報到等狀況演練（簽單公司理賠服務中心及災區聯合理賠服務中心）

- 成立 1 處災區聯合理賠服務中心。
- 簽單公司於災區辦公處所成立 16 處理賠服務中心，並模擬本保險理賠作業。

第四階段

- 4** · 模擬災損建築物之損失評定及相關系統操作演練

- 建置災損模型供合格評估人員進行全損評定。

- 理賠機制模擬演練-檢討會暨頒獎典禮

- 檢討本年度模擬演練缺失及改善建議。
- 頒獎典禮。



## Claim Simulation Drills

Situation：

Simulation drill of a magnitude 6.9 earthquake on the Richter scale on the Milun Fault eastern Taiwan

## Results

First phase

## Drill phase

- 1** Information gathering on the disaster/Emergency response:
- Internal meetings
- Emergency conference:
- Each insurers report on their losses
  - Integration of resources

- Each insurers activated their emergency response plans on the first instance of the disaster and have internal meetings on emergency response plans as well as determine the help they need.

- TREIF activated its emergency response plans on the first instance of the disaster, have internal meetings, report on the damages and execute various plans.

- TREIF organizes emergency meetings and coordinates resources.

Second phase

- 2** · Report on the drill

- Each insurers's claim manager should quickly respond on the first instance, and mobilize the qualified adjusters so that they report to their units.

Third phase

- 3** · Report on location and wait for the situation (claim settlement and service center of the insurers and joint claim settlement service center of the site of the disaster)

- Establish one joint claim service center in the stranded area.
- The insurers established 16 claim service centers in the stranded area, and simulates claim settlement operations.

Fourth phase

- 4** · Simulation of building damage evaluations and related system operation

- Establish a damaged building module for the qualified adjusters to conduct loss assessment.

- Conducting claim settlement simulation drill – review meeting and award ceremony.

- Examining the annual drill's deficiencies and the ways for improvement.
- Award ceremony.







### 1. 2017年度模擬演練以簽單公司為演練主角，新增特色包括：

- (1) 首次於東部地區辦理；
- (2) 以LINE群組發佈地震通報及不預警通報回報演練；
- (3) 為因應地震時可能發生之網路/通訊中斷，本年度特別要求各產險公司於出席緊急會議時報告網路及通訊倘同時中斷之替代聯繫方式。

### 2. 2017年度模擬演練目標達成情形

- (1) 第二階段無預警發送地震通報於簽單公司理賠主管LINE群組，各簽單公司理賠主管能於第一時間注意、迅速回覆，並正確動員所屬之合格評估人員及進駐人員，至災區聯合理賠服務中心報到。
- (2) 第三階段合格評估人員及進駐人員實地報到比率達100%。
- (3) 建築物模型災損評定作業之合格評估人員報到率達100%，災損評定作業流程及操作較2016年熟稔。其整體平均分數由66.4分提升至78.3分，其中排名前50%人員之平均分數為84分。

### 3. 2017年度模擬演練檢討事項與改善建議

模擬演練業於2017年6月29日順利完成，並於2017年8月31日舉辦檢討會暨頒獎典禮，完成向與會者簡報。主要檢討內容包括：

- (1) 簽單公司出席緊急會議代表層級之檢討  
緊急會議是本基金與簽單公司理賠主管協調統合資源、需協助事項並作重要決議之溝通平台，建議各簽單公司由理賠主管或其職務代理人親自出席緊急會議。
- (2) 進駐人員對於本保險理賠相關規定瞭解程度之檢討  
部分簽單公司進駐人員對本保險理賠相關規定，未臻嫻熟，嗣後辦理進駐人員訓練課程時，將強化理賠條款之說明。

### 1. The 2017 annual simulation set insurers as the principal character, the new characteristics being as follows:

- (1) The first on the east coast;
- (2) Notice on the earthquake and mobilization notice were post on a LINE group without prior warning;
- (3) Internet and communication could be severed at any time during an earthquake. Therefore each insurance company should consider this issue in emergency meetings and work out a plan in case it happens.

### 2. The Results of the 2017 Claim Simulation Drills

- (1) The second stage was about sending earthquake reports to insurers' claim settlement managers without prior warning through LINE groups. Each insurers's manager was able to acknowledge the earthquake report and quickly reply, and mobilize respective qualified adjusters and stationed personnel to the disaster site joint claim service center.
- (2) Qualified adjusters and stationed personnel's report-for-duty ratio reached 100% at the stage 3.
- (3) The report-for-duty ratio of qualified adjusters for loss assessment of disaster damaged building module reached 100%. Assessment capability has improved from 2016. The average score has climbed to 78.3 points from 66.4 points out of 100. Among all, the first 50% of the evaluated personnel have scored an average of 84 points.

### 3. Review and Recommendations for Improvement from the 2017 Simulation Drills

The simulation drills have successfully come to an end on June 29, 2017. The review meeting and award ceremony was held on August 31, 2017, and a report was presented to participants, with content mainly as follows:

- (1) Level of insurers's personnel attending the emergency meeting  
The emergency meeting aims at letting TREIF and insurers to coordinate and integrate resources, help each other on certain issues, and provide a platform for them to communicate. It is suggested that insurers designate claim managers, or their deputy, attending the emergency meeting in person.
- (2) Stationed Personnel's Familiarity with the Claim Settlement Procedures of the Insurance  
It was found that some stationed personnel were unfamiliar with the claim settlement procedures; therefore future training must include an enhanced focus on the claim related clauses.
- (3) Reviews on insurers's disaster site claim service center.  
Part of insurers have not properly taken part in the simulation drills regarding "claim service center". They were suggested to make improvement within a month (while their score will remain the same).
- (4) The Capability of the Qualified Adjusters  
It was found that some qualified adjusters were unfamiliar with the loss assessment of the building column, and structure wall, photographic evidence gathering, total loss assessment system operation. Therefore, trainers must strengthen the skills on loss assessment in future workshops.







### (3) 簽單公司對於災區理賠服務中心執行程度之檢討

部分簽單公司未確實於災區營業處所進行「理賠服務中心」演練，建議未來請其一個月內改善（惟評分維持不變）。

### (4) 合格評估人員評定能力之檢討

部分簽單公司合格評估人員對災損建築物柱、牆之損壞評定、相片採證及說明、全損評定及鑑定資訊系統（CES）操作未臻嫻熟，嗣後辦理合格評估人員訓練課程時，請授課之專業技師強化損壞評定之說明。

## ■ 舉辦2017年第11屆世界巨災論壇會議

地震保險基金於2017年9月26日假臺北市君悅飯店主辦2017年第11屆世界巨災論壇會議（World Forum of Catastrophe Programmes）。世界巨災論壇係各國天災保險制度管理者為交流彼此之管理經驗，於2006年共同籌組之非營利、非官方組織，每年由會員國輪流主辦研討會，本基金自2007年起每年均派員參加會議，並於2009年主辦第4屆會議，2017年為第二度主辦。

世界巨災論壇會議於2016年因故停辦，面臨後繼無承辦國之問題，本基金爰出面主動爭取申辦2017年世界巨災論壇會議，讓世界巨災論壇會議得以延續，獲得各國會員一致感謝。

本次論壇為第11屆，出席會員包括來自美國、西班牙、冰島、羅馬尼亞、瑞士、挪威、法國、英國、加勒比海地區及我國共10國11個天災保險管理機構代表，金管會黃副主委天牧與保險局吳局長桂茂親臨致詞與指導。

本次論壇共計三天議程，主要內容包括：各國會員制度近況簡報及新興天災保險制度介紹、會務座談、大會章程討論，以及臺灣特殊地質地貌考察，如：太魯閣峽谷、大屯火山觀測等。

該會議業於2017年9月28日順利完竣，相關活動訊息並於各大新聞媒體報導。各國天災保險制度管理者藉再次參與此會議，將世界巨災管理機制論壇的互助與分享精神持續傳承下去。

## ■ Organizing the 11th World Forum of Catastrophe Programmes

TREIF held the 11th World Forum of Catastrophe Programmes on September 26, 2017 at the Grand Hyatt Taipei. The forum allows the managing organizations of natural catastrophe insurance schemes from each country to exchange their experiences on management. The forum was formed as a non-profit and non-government-organization entity in 2006. Member countries take turn each year to organize a forum. TREIF has been participating it since 2007, and has held the 4th forum in 2009. It was the second times that TREIF was organizing in 2017.

The World Forum of Catastrophe Programmes was adjourned in 2016 in the absence of successor hosting member then. TREIF thus was requested to organize the 2017 forum so that the forum could go on. This move was approved by all member countries.

This was the 11th forum. Participants came from the US, Spain, Iceland, Romania, Switzerland, Norway, France, the UK, the Caribbean region and Taiwan. A total of 11 natural disaster insurance management institutions came from these 10 participating countries. Mr. Thomas Huang, the Vice-Chairperson of the Financial Supervisory Commission gave opening address and Mr. Kuei-Mao Wu, the Director General of the Insurance Bureau also attended the forum.

This forum lasted three days. The main topics included briefings on each country's latest situations and the introduction of the newly established natural disasters insurance scheme. There were also discussions on world forum business and visits to specific geological sites in Taiwan, such as the Taroko Gorge, and Tatun Volcanoes.

Local media reported about the forum after its completion on September 28, 2017. Each country's natural disaster insurance scheme delegate took this opportunity to meet again and passed on the spirit of mutual help and sharing.



2017.09.25-28世界巨災論壇會議（董事長陳明仁及來賓合照）



## ■ 住宅地震保險風險評估模型檢視、驗證及開發新應用程式

### 1. 檢視及驗證現有模型

- (1) 業如期完成本案第一階段工作—檢視及驗證本基金現有風險評估模型TREIF-ERA（以下簡稱“ERA”）：
- (2) 驗證項目-主要檢視ERA模型之產出結果
  - a. 同質性風險之敏感度測試。
  - b. 過去實際案例之損失驗證。
  - c. 地震強度與回歸期之比較。
  - d. 就損失幅度發生之頻率進行比較。
  - e. 就易損性函數進行比較。
  - f. ERA模型損失估算是否允當，與驗證模型預估損害與實際損失相符程度。
- (3) 經委託天災風險評估模型專家檢視，以驗證該模型之有效性。

### 2. 開發新應用程式

- (1) 經洽精算模型專家，業如期完成本案第二階段工作—開發精算應用程式暨動態財務分析報告，並針對本基金所提出問題分析項目如下：
  - a. 各模型樣本資料數量或型態不足問題之因應對策。
  - b. ERA模型理論特性方法論之分析。
  - c. ERA模型與其他國外模型之數值差異與參數調整。
  - d. 將其他各種承保範圍之非結構性損害納入考量。
  - e. 地震損害（損失發生機率）之檢視。
  - f. 累積準備金多寡與純保費分配之關係（累積時間因素）。
  - g. 是否需將過去損失紀錄、全球暖化與氣候變遷等因素納入考量。
  - h. 檢視費率計算公式與風險係數。

### 3. 本基金將續於2018年執行本案之第三階段工作—驗證前揭第一、二階段工作之成果。

## ■ Risk assessment model on residential building's earthquake insurance

### 1. Examination of current models

- (1) The stage 1 of this job was already completed-Examination of TREIF's in-house model TREIF-ERA (hereby referred to as ERA):
- (2) Testing of ERA model
  - a. Sensitivity test / homogeneous exposures.
  - b. Validation of past losses.
  - c. Intensity return period comparison.
  - d. Comparison of frequency by severity.
  - e. Comparison of damage functions.
  - f. Evaluation of model suitability, and validate how much the ERA model's estimated loss matches actual loss.
- (3) The evaluation was comisioned to model experts, for validation of the effectiveness of the model.

### 2. Developping new application systems

- (1) The actuarial model specialist has already accomplished the stage 2 job-developing an actuarial application and a dynamic financial analysis report. The following analyses arose from series of questions raised by TREIF:
  - a. A plan to respond to the issue of insufficient data.
  - b. Analysis on ERA model's specific methodology.
  - c. Adjustment of parameters and numerical values' differences of ERA model and foreign based models.
  - d. Taking the coverage of non-building-structural damages into consideration.
  - e. Verification of earthquake damages frequency.
  - f. Relation between the cumulative total amount of reserve and pure premium alloaction(i.e. the duration factor).
  - g. Evaluate whether to take into consideration loss record, global warming and climate change.
  - h. Verification of the premium calculation formula and risk coefficient.

### 3. TREIF will implement the stage 3 of this project in 2018- validation of the stage 1 and stage 2 jobs.



南投縣 南投國小 蔡欣霓





## ■ 辦理住宅地震保險超額賠款再保險安排

有關2017年度住宅地震保險危險分散機制之風險分散，地震保險基金辦理再保分出，安排承擔限額超過新臺幣200億元之100億元及超過新臺幣300億元之100億元之兩層超額賠款再保合約續約。經努力議價，極力與再保人爭取對地震保險基金最優惠之價格。

## ■ 研究發展

住宅地震保險制度發展規劃工作小組

2017年住宅地震保險制度發展規劃工作小組召開2次會議，確認其轄下各分組所擬各項重要工作內容與進度：

### ◆ 危險分散與費率分組

危險分散與費率分組召開1次會議，完成共保組織會員公司之認受成份計算基礎之檢視，現行認受成份計算基礎之合理性分析與其他可納入考量因子分析純保險費率檢討等工作項目，會議重要結論如下：

1. 為檢視本保險共保組織會員之認受成分計算基礎是否合理，以瞭解各共保組織會員累積特別準備金與認受成份兩者之間關係，本基金曾於2015年研議試將「本保險累積特別準備金」與「會員資本額」二項因素納入共保組織會員之認受成份計算，計算結果與當時分配成份差異尚不顯著，爰迄今維持以各會員過去三年平均之本保險保費收入為標準。
2. 本基金於2017年7月函報主管機關建議仿日本住宅地震保險制度，採無盈無虧之經營模式，並取消現行共保組織特別準備金收回門檻之規定。本案有關認受成份計算基礎，將視情況再行配合檢討。
3. 本保險共保組織認受成分之分配成分之計算基礎，仍先維持以各會員過去三年平均之本保險保費收入為標準。

### ◆ 承保理賠與法制分組

承保理賠與法制分組召開2次會議，完成研議強化我國住宅地震保險詐欺防治、本保險合格估人員及災區聯合理賠服務中心進駐人員人力需求暨訓練計畫之研擬等工作項目。

## ■ Management of Reinsurance Placement for Excess of Loss for the Residential Earthquake Insurance

Based on the Risk Spreading Mechanism of Residential Earthquake Insurance, in 2017, TREIF transferred risk to reinsurance market by renewing excess of loss reinsurance contract in two layers, namely the layer of NTD 10 billion in excess of NTD 20 billion and the layer of NTD 10 billion in excess of NTD 30 billion. By trying very hard at negotiation with the reinsurers, TREIF aimed at achieving the most favorable prices.

## ■ Research & Development

Residential Earthquake Insurance Program Development and Planning Task Force

In 2017, the Residential Earthquake Insurance Program Development and Planning Task Force convened 2 meetings to validate the major tasks that each subcommittee had planned and the progress of each task.

### ◆ The Risk Spreading and Premium Rate Subcommittee

The Risk Spreading and Premium Rate Subcommittee convened 1 meetings, completing tasks such as: examining the Co-insurance Pool's acceptance calculation basis, the rational analysis of existing calculation basis and the review of other factors for calculating pure premium. Important conclusions of the meeting were as follows:

1. In order to determine whether the calculation basis of Co-insurance Pool members' assumed shares is reasonable, and to understand the relation between each member's accumulated reserve and their shares, TREIF studied whether to take the "accumulated special reserve" and "members' capital" into the members' shares calculation in 2015. The study resulted in difference barely noticeable. Thus the scheme calculation has remained unchanged, being the average premium income of the past three years.
2. TREIF reported to the competent authority in July 2017, to imitate the Japanese residential earthquake insurance system, which adapts no profit and no loss operating basis, and to withdraw the threshold on the current coinsurance pool's special reserve fund recalling rule.
3. The calculation basis of this Co-insurance Pool's shares remains the same basis as per the average premium income of past three years.

### ◆ The Underwriting, Claim and Legal Subcommittee

The Underwriting, Claim and Legal Subcommittee arranged 2 meetings to achieve the following: strengthening the anti-fraud of the residential earthquake insurance measures; projecting claim manpower needs and developing training plans for qualified adjusters and stationed personnel of the Joint Claim Service Center.





## ■ 法令修正

### ◆ 現行承保理賠作業處理要點之檢討修正

#### （一）研議緣由

主管機關轉內政部指示，可於相關法規增列外僑居留證或永久居留證作為視同護照效力之身分證明文件辦理，爰檢討修正「住宅地震保險承保理賠作業處理要點」。

#### （二）結論與建議

「住宅地震保險承保理賠作業處理要點」部分條文修正重點臚列如下：

1. 貳、承保作業處理要點二、要保書應填具事項（一）：新增文字「或外僑居留證證號或永久居留證證號」。
2. 參、理賠作業處理要點，一、出險通知（二）：新增文字「（外籍人士為護照號碼或外僑居留證證號或永久居留證證號）」。
3. 配合前二項要點之修正，修正附表一：「住宅地震基本保險理賠申請書、住宅火災保險附加地震基本保險理賠申請書」。

## ■ 訓練與宣導

### ◆ 合格評估人員訓練

為培養適足之本保險合格評估人員，俾期地震後有充足人力進行本保險毀損建築物之評定作業，地震保險基金每年辦理住宅地震保險全損評定及鑑定人員新訓及複訓課程，並檢討修正訓練教材。主要課程內容為本保險理賠作業介紹、住宅建築物地震毀損程度評估方法及判定準則（含案例解說）、繪圖解說及實作及全損評定及鑑定資訊系統介紹，使受訓學員熟稔本保險理賠相關評定作業。2017年辦理臺北、臺中及高雄共計15場次訓練課程，培訓合格評估人員新訓351人，複訓380人。

### ◆ 災區理賠及聯合理賠服務中心進駐人員訓練

為期地震後有充足且熟悉本保險理賠作業處理程序之理賠服務中心進駐人員能迅速協助受災保戶申請理賠及提供相關諮詢服務，地震保險基金每年辦理住宅地震保險災區理賠及聯合理賠服務中心進駐人員新訓課程，並檢討修正訓練教材。2017年辦理臺北、臺中及高雄共4場次訓練課程，培訓進駐人員新訓91人，複訓75人。

## ■ Revisions of Laws and Regulations

### ◆ Review and modification of claim settlement procedure

#### 1. Background of the study

TREIF's supervising authority has instructed that an Aliens Residence Certificate (ARC) or an Aliens Permanent residence Certificate (APRC) would act the same as a passport as an identity certificate. TREIF's rules were thus modified.

#### 2. Conclusions and suggestions

Part of TREIF's rules are amended as follows:

1. #II, point 2 of the underwriting guideline, the insurance policy form should include (1): "ARC or APRC number".
2. #III, claim settlement procedure, Point 1. Notice of loss (2): to add text "foreigners could be identified with their passport number, ARC number, or their APRC number".
3. Amendment to "claim application forms".

## ■ Training & Promotion

### ◆ Training for Qualified Adjusters

TREIF organizes trainings and retraining sessions each year, so that more qualified adjusters could devote themselves to loss assessment. TREIF also reviews and modifies its training materials each year. The trainings include presentations on insurance claim settlements, assessment methods on the damage level of buildings and loss criteria (including case studies). The trainings include commentary with charters, hands-on practice, total loss determination, and introduction to the evaluation system. Such trainings aim at letting trainees familiarize with the claim settlement determinations and operations. In 2017, a total of 15 training classes were held in Taipei, Taichung and Kaohsiung to train 351 new qualified adjusters and 380 incumbent qualified adjusters.

### ◆ Trainings for Stationed Personnel of Joint Claim Service Centers of Disastrous Areas

Qualified and experienced adjusters stationed at the claim settlement service center who are themselves familiar with the claim settlement procedures are able to quickly help stranded people apply for a settlement and provide related consultation services. Each year, TREIF trains new personnel to be stationed at the joint claim settlement service center, and to provide residential earthquake insurance. The training textbooks are also reviewed every year. In 2017, a total of 4 training classes were held in Taipei, Taichung and Kaohsiung to train 91 new stationed personnel and 75 incumbent stationed personnel.



基隆市 二信中學國中部 孫翊煊







### ◆ 專業技師講習

為期震後有適足之本保險毀損建築物之專業鑑定人力及參與住宅地震保險鑑定之專業技師及建築師充分瞭解住宅地震保險理賠流程及理賠標準，俾順利完成受託建築物鑑定作業，地震保險基金每年與建築師、專業技師公會共同辦理講習課程。2017年於臺北市、臺中市及高雄市辦理5場專業技師及建築師講習會，共有191位技師及建築師參與講習，增進其對本保險毀損建築物評定作業之了解及擔任震後損失鑑定人員之意願。

### ◆ 業務宣導

加強辦理各項宣導活動，呼籲社會大眾正視地震風險，提升其對住宅地震保險之正確認知。

2017年地震保險基金辦理之宣導活動：

- (一) 與南投縣、嘉義縣、新竹市、基隆市及臺東縣等五縣市政府合辦地震教育四格漫畫、書法、繪畫、海報、真人版四格漫畫、貼圖、防災教具、防災地圖設計等項目競賽及有獎徵答等活動，約500校、約7,000班參加。由老師逐班以本保險資料及宣導短片向學生說明；學生並進行本保險有獎徵答等競賽活動；於頒獎典禮致詞，並以DM、海報、作品成果冊序文及內頁廣告等文宣延續宣導本保險效益。
- (二) 辦理講座式或攤位式活動，共51場，參加人數5,158人。
- (三) 持續與國立自然科學博物館合辦「2017年度補助偏遠學校地震防災知識之旅」活動，補助偏鄉學校參觀921地震教育園區活動，以均衡偏鄉與都會學校使用防災教育資源之機會，該園區於重建記錄館展示住宅地震保險制度建制相關資訊。
- (四) 運用臉書等各種網路媒體廣告及貼文之快速擴散特性，加強臉書貼文及辦理有獎徵答活動，以提高本保險之曝光度及形象，並增進社會大眾對本保險之正確認知。
- (五) 於udn聯合新聞、中時電子報、工商時報、Yahoo等10餘新聞媒體報導本基金舉辦2017年度巨災論壇新聞。
- (六) 於內政部消防署臺灣抗震網，建置住宅地震保險專屬網頁，宣導相關資訊。

### ◆ Professional Engineer Workshops

TREIF strives to provide enough professionals to evaluate losses and to ensure that professional engineers and architects participating in the assessment operations could fully understand the claims adjustment process and standards, thus are able to complete the assessment on damaged buildings that are commissioned to the engineers/architects. TREIF holds these workshops along with the architect associations and professional technician associations each year. In 2017, a total of 5 professional engineer and architect workshops were held in Taipei, Taichung, and Kaohsiung. A total of 191 engineers and architects attended the workshops. This increases participants' interest in becoming a post-disaster adjuster, and enhances their knowledge on TREIF's evaluation operations.

### ◆ Business Promotion

TREIF organized numerous promotional events to call for public's attention on earthquake risk and disseminate people's correct knowledge about residential earthquake insurance.

TREIF's promotional activities in 2017 include:

1. Organizing contests in drawing comics, writing calligraphy, painting, making posters, real-life comics, “emoj” graphics, building teaching aids, designing disaster evacuation maps with the local governments of Nantou County, Chiayi County, Hsinchu County, Keelung County and Taitung County. The contests involved nearly 500 schools and about 7,000 classes of students. Teachers explained to schoolers in each classroom the content of earthquake insurance and showed them an educational video about the earthquake insurance. Students also took part in quiz contests about the insurance. They were also invited to the award ceremonies. TREIF gave speeches, and the benefits of earthquake insurance were conveyed through TREIF's posters and all sorts of propaganda.
2. TREIF organized 51 sessions of other promotional activities in lecture or fair booth format, benefiting 5,158 participants.
3. TREIF kept on co-organizing the “2017 annual subsidy to remote schools for a trip to learn about earthquake knowledge” with the National Museum of Natural Science. Students from remote areas were able to visit the 921 Earthquake Museum of Taiwan. This aims at giving equal opportunities to students in remote areas as those of metropolitans in terms of disaster prevention education. The earthquake museum also featured information on earthquake insurance system in one of its pavilions.
4. TREIF utilized various online media advertisements and postings, such as Facebook, to disseminate messages quickly. To increase the exposure of the insurance and enhance public's correct knowledge about it, TREIF focused on Facebook postings and conducting online quizzes with prizes.
5. TREIF's 2017 World Forum of Catastrophe Programmes was reported in over 10 media outlets, including udn News, ChinaTimes, Commercial Times, Yahoo and others.
6. TREIF set up an residential earthquake insurance webpage in National Fire Agency's “Taiwan Earthquake Drill – COME Website” to promote the insurance.







## ■ 資訊作業

### ◆ 電腦異地備援機制及演練

為確保地震保險基金資料庫及資訊系統之安全，地震保險基金於2007年建置電腦異地備援機制，提供業務永續運作之基礎，不因設備異常或災難發生而中斷營運，備援地點為桃園龍潭（宏基渴望園區），建置初期備援範圍為網域控制伺服器、主資料庫伺服器、電子郵件伺服器、檔案伺服器及網站伺服器，另為強化地震保險基金異地備援系統之完整性，分別於2009年12月、2010年12月完成複保險查詢平台、及其點對點機制之異地備援機制。

地震保險基金每年進行異地備援模擬演練，2017年10月於財團法人保險安定基金進行演練，以確保當大災難發生導致重要電腦設備毀損無法運作因而需啟動異地備援機制時，各項系統切換作業能順利進行。

### ◆ 訂定分散式阻斷服務（簡稱DDoS）防禦與應變作業程序

為能有效提升地震保險基金針對分散式阻斷服務（Distributed Denial of Service, DDoS）攻擊的防禦及應變能力，使地震保險基金於遭受DDoS攻擊時，能熟練適當的應變處置措施，儘速減緩DDoS攻擊影響，使資訊設備及服務能儘速恢復正常營運，業訂定分散式阻斷服務防禦與應變作業程序，且於2017年6月依前揭程序進行沙盤演練。

### ◆ 建置第11屆世界巨災論壇會議網站及報名系統

地震保險基金為提高會議報名效率及減少會議紙本用量，故建置世界巨災論壇會議網站報名系統，供與會者自行報名下載簡報及會議相關資料。



南投縣 南投國小 陳禾鳳



## ■ Information Operation

### ◆ Disaster Recovery Mechanism System and Simulation Drills

To ensure the security of TREIF database and the information system, in 2007 TREIF established a disaster recovery system, building a foundation for sustainable operation while preventing business disruption due to an equipment malfunction or natural disaster. The recovery system is located in Lungtan, Taoyuan County (Acer Aspire Park). In the initial stage, the scope of the recovery covers domain controller servers, primary database servers, email server, file server and web site server. Moreover, as part of an effort to strengthen the comprehensiveness of the disaster recovery system, TREIF completed the building of a recovery system for double insurance verification platform and the Host-to-Host System for its disaster recovery platform in December, 2009 and December 2010, respectively.

Every year, TREIF conducts disaster recovery system simulation drills to ensure system transitions to disaster recovery system can be done smoothly in case that computer equipments are damaged when an earthquake hits. In October 2017, these drills were conducted at the office of Taiwan Insurance Guaranty Fund.

### ◆ Emergency response operation procedure of Distributed Denial of Service

In order to enhance TREIF's abilities of defense and emergency response against Distributed Denial of Service (DDoS), so that TREIF could react accordingly when attacked by DDoS and quickly diminish the DDoS' influence, and that its MIS/IT facilities and services could be restored and operate in a normal manner, an operation procedure to respond to DDoS has been established, and a related drill was held in June 2017.

### ◆ Built up a registration system for the 11th World Forum of Catastrophe Programmes.

TREIF aims at enhancing the efficiency of registration in conferences and reducing paper use. It therefore established an online registration system for the World Forum of Catastrophe Programmes so that participants could register themselves and download presentations and documents related with the conference.



2017.12.22新竹市106年地震防災教育競賽  
頒獎典禮（總經理侯自維（前排右一）與  
獲獎師生合照）







財務概況

收入概況

2017年再保費收入新臺幣37.98億元較2016年度之新臺幣36.67億元成長3.56%，其主要原因為本基金持續研議提升投保率方案，並結合業務宣導，使得2017年度實際有效保單件數較預期增加，致再保費收入增加。此外，利息收入亦隨著各項準備金累積而成長，惟本年度其他收入項下攤回2016年度2月6日高雄美濃地震發生之賠款2.61百萬元，較2016年度減少1.63億，爰地震保險基金2017年總收入新臺幣41.96億元較2016年成長 - 0.64%。

各年度收入 2013-2017

單位：新臺幣仟元

年度	2013	2014	2015	2016	2017
再保費收入	3,332,002	3,442,911	3,531,024	3,667,243	3,797,659
利息收入	272,271	320,408	344,710	386,674	391,922
其他收入	5,188	5,156	4,445	169,164	6,309
收入合計	3,609,461	3,768,475	3,880,179	4,223,081	4,195,890
成長率	4.66%	4.41%	2.96%	8.84%	-0.64%

準備金累積

地震保險基金係依下列規定提存特別準備金：

- 每年年底應就分進之純保險費收入總額，扣除共保組織及國內、外再保險市場或資本市場危險分散成本、淨自留賠款、未滿期保費準備淨變動、賠款準備淨變動及支付融資貸款利息後之餘額，全數提存特別準備金。
- 每年年底應就本保險附加費用收入及不含資金運用收益之其他各項收入總額，扣除各項成本費用後之餘額，全數提存特別準備金。

Financial Overview

Revenue

In 2017, the reinsurance premium revenue totaled NTD3.798 billion, up by 3.56% when compared to last year's NTD3.667 billion mainly because of our persistent effort in researching for ways to raise take up rate combined with successful business promotion campaigns that generated good business results and led to a higher number of policy in-force than expected. In addition, interest income increased as various reserves accumulated, but the annual budget was apportioned to the previous year of 2016 because of the February 6, 2016 Meinong Earthquake which saw NT\$2.61 million in settlement, marking a NT\$163 million less than 2016. In summary, the total revenue of TREIF for 2017 amounted to NTD4.196 billion, by -0.64% from previous year.

Annual Revenue 2013-2017

Unit: NTD1,000

Year	2013	2014	2015	2016	2017
Reinsurance Premiums Revenue	3,332,002	3,442,911	3,531,024	3,667,243	3,797,659
Interest Revenue	272,271	320,408	344,710	386,674	391,922
Others Revenue	5,188	5,156	4,445	169,164	6,309
Total	3,609,461	3,768,475	3,880,179	4,223,081	4,195,890
Growth Rate	4.66%	4.41%	2.96%	8.84%	-0.64%

Accumulation of Various Reserves

TREIF shall set aside special reserve pursuant to the following provisions:

- At the end of each year, TREIF shall set aside the balance of the total amount of pure premium received after deduction of premium allocated to the Pool, the costs in connection with spreading of risk on domestic, overseas reinsurance or capital markets, net retained loss, net change in unearned premium reserve, net change in loss reserve, and interest paid for financing loans as special reserve.
- At the end of each year, TREIF shall set aside the balance of the income from expense loading plus the sum of various incomes excluding the financial income after deduction of operating costs and expenses as a special reserve.





截至2017年底，地震保險基金累計提存之特別準備為新臺幣243.39億元，未滿期保費準備13.68億元，預留調整準備為新臺幣6.19億元，信用風險準備為新臺幣3.31億元，各項準備金之累積餘額達新臺幣266.57億元，與2016年底新臺幣241.59億元相較，成長率為10.34%，近年來累積狀況如下：

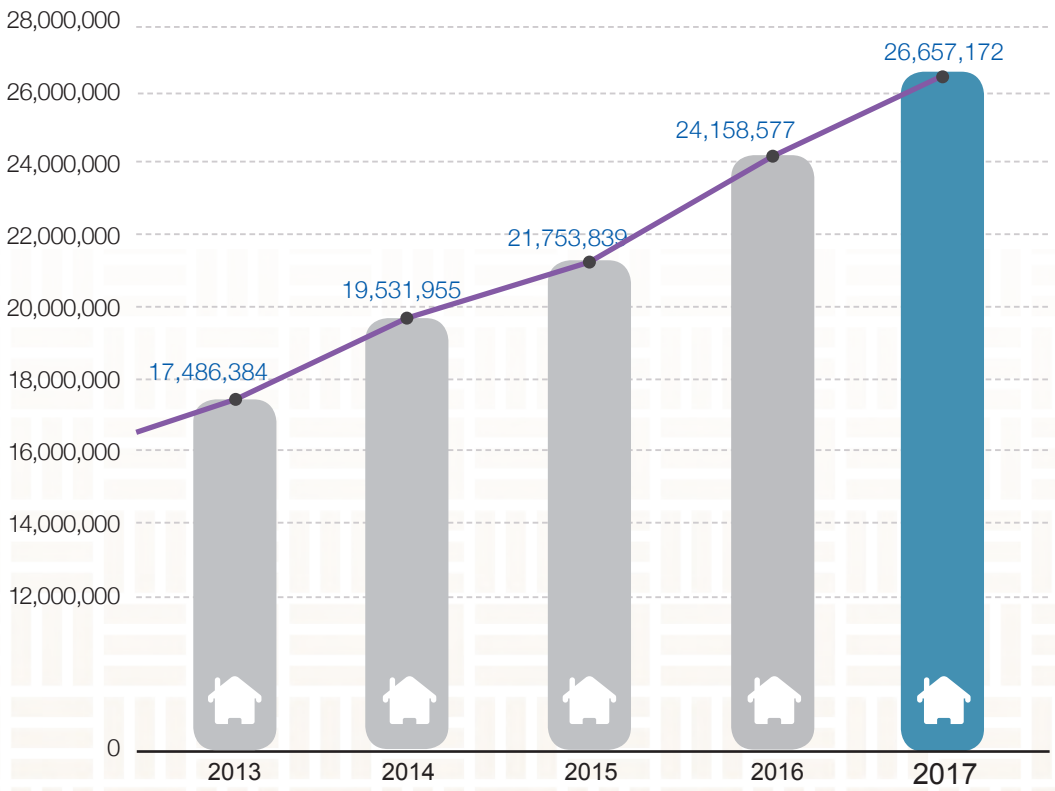
各種準備金累積狀況

單位：新臺幣仟元

年度	2013	2014	2015	2016	2017
特別準備	15,721,028	17,629,590	19,715,519	21,984,954	24,339,252
未滿期保費準備	1,176,769	1,226,730	1,277,242	1,319,941	1,368,375
預留調整準備	399,657	451,886	505,370	560,932	618,450
信用風險準備	188,930	223,749	255,708	292,750	331,095
合計	17,486,384	19,531,955	21,753,839	24,158,577	26,657,172
成長率	12.56%	11.70%	11.38%	11.05%	10.34%

各種準備金累積狀況圖

單位：新臺幣仟元



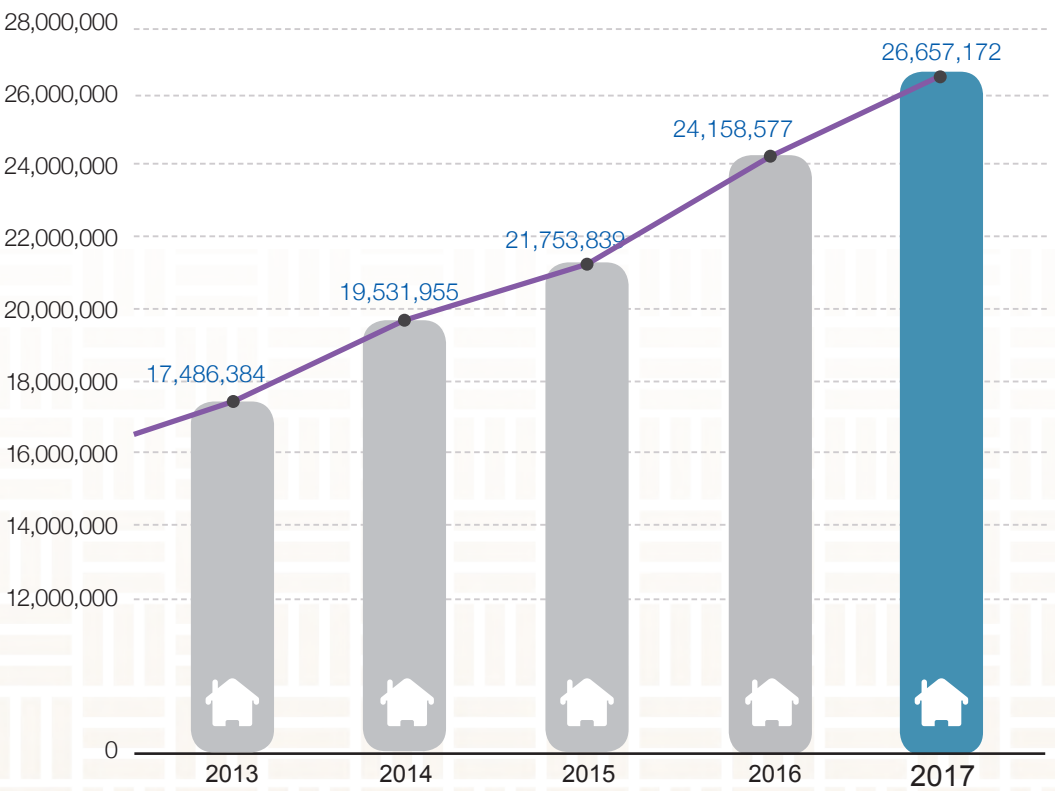
Accumulation of Various Reserves

Unit: NTD1,000

Year	2013	2014	2015	2016	2017
Special Reserve	15,721,028	17,629,590	19,715,519	21,984,954	24,339,252
Net Unearned Premium Reserve	1,176,769	1,226,730	1,277,242	1,319,941	1,368,375
Reserve Adjustment	399,657	451,886	505,370	560,932	618,450
Credit Risk Reserve	188,930	223,749	255,708	292,750	331,095
Total	17,486,384	19,531,955	21,753,839	24,158,577	26,657,172
Growth Rate	12.56%	11.70%	11.38%	11.05%	10.34%

Accumulation of Various Reserves

Unit: NTD1,000







## ■ 財源籌措計畫

地震保險基金依據各項收支及投保率之預估、危險分散機制、累積特別準備金及相關法令等之變動，推估未來可能成長的規模，並考量國內外金融市場的籌資方式，擬訂地震保險基金因應資金不足支應賠款時之財源籌措計畫。

一旦發生大地震，地震保險基金即依產險公司統計之實際理賠損失，儘速估算地震保險基金應攤付之賠款及資金缺口，並就資金缺口研擬財源籌措因應方式。如果賠款金額不大，由地震保險基金之累積資金支應或向銀行信用借款方式自行籌資，若資金缺口過大致地震保險基金無法自籌財源解決時，為保障被保險人權益，即依保險法第138-1條規定報請主管機關會同財政部報請行政院核定後，由國庫提供擔保，以取得必要之資金來源。



2017.10.26保險事業發展中心ERM會議  
(總經理侯自維與演講嘉賓合照)

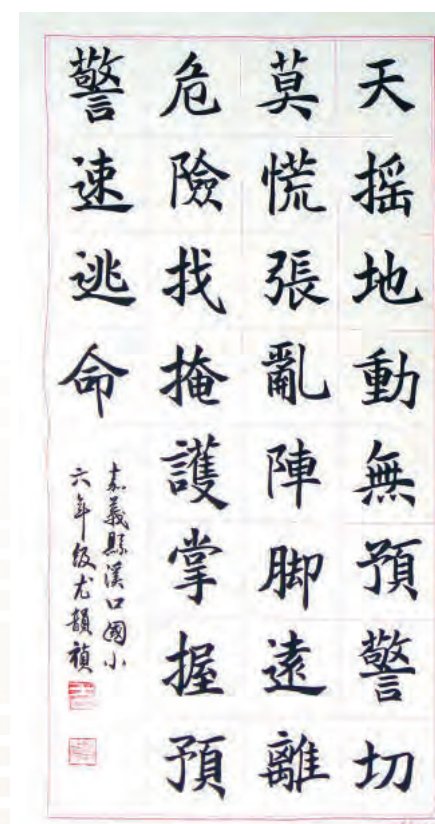


2017.12.28嘉義縣106年地震防災教育競賽頒獎典禮(總經理侯自維(中)與獲獎師生合照)

## ■ Financing Plan

TREIF forecasts its growth based on estimated annual revenue, expenditure and take-up rate, as well as changes in the risk spreading mechanism, cumulative reserves and relevant laws. TREIF prepares a financing plan in case when the cumulative reserves are insufficient to cover the claim payments by taking into account the financing methods in domestic and overseas financial markets.

When a major earthquake occurs, TREIF could calculate an estimated payable claims and possibly fund shortfall according to the actual loss assessment by Non-life insurers and formulate a financing plan to tackle the fund shortfall. If the payable claims can be managed by TREIF alone, TREIF will finance it by utilizing its cumulative funds, or seek bank credit. However, if the payable claims exceed the amount that TREIF can manage, in order to protect the interests of the insured, TREIF may first request the competent authority and the Ministry of Finance to jointly apply for Executive Yuan's approval, based on Insurance Act Article 138-1, then obtain necessary financial resource using National Treasury as a guarantor.



嘉義縣 溪口國小 尤韻禎



嘉義縣 大南國小安靖分校 李雅婷、許吟琦、許倍瑜





■ 資金運用

地震保險基金資金之運用，以安全性為首要考量，同時兼顧投資標的之流動性及收益性，並本風險分散原則作最妥適之配置。

截至2017年底，地震保險基金可運用資金總額較前一年底增加新臺幣28.72億元，累計已達新臺幣289.89億元，其中銀行存款新臺幣37.64億元，政府債券新臺幣76.47億元，金融債券新臺幣115.97億元，公司債新臺幣59.77億元，證券（ETF）新臺幣0.04億元。

可運用資金配置狀況表

單位：新臺幣仟元

項目	2016 年		2017 年		比較增減金額
	金額	比例	金額	比例	
銀行存款	3,885,353	14.9%	3,764,109	13.0%	(121,244)
政府債券	6,652,199	25.5%	7,646,735	26.4%	994,536
金融債券	10,638,666	40.7%	11,596,777	40.0%	958,111
公司債券	4,940,887	18.9%	5,977,437	20.6%	1,036,550
證券 (ETF)	0	0.00%	3,876	0.01%	3,876
總計	26,117,105	100%	28,988,934	100%	2,871,829

■ Investment Management

The top concern of TREIF's investment management is safety while keeping a good balance of liquidity and profitability, as well as risk diversification to achieve optimal portfolio.

Up to the end of 2017, TREIF has accumulated as much as NT\$28.99 billion of available funds, up NT\$2.87 billion from the same period in the previous year. This includes NT\$3.76 billion savings in bank accounts, NT\$7.65 billion in government bond, NT\$11.6 billion in financial bond, NT\$5.98 billion in corporate bond, and NT\$4 million in ETF.

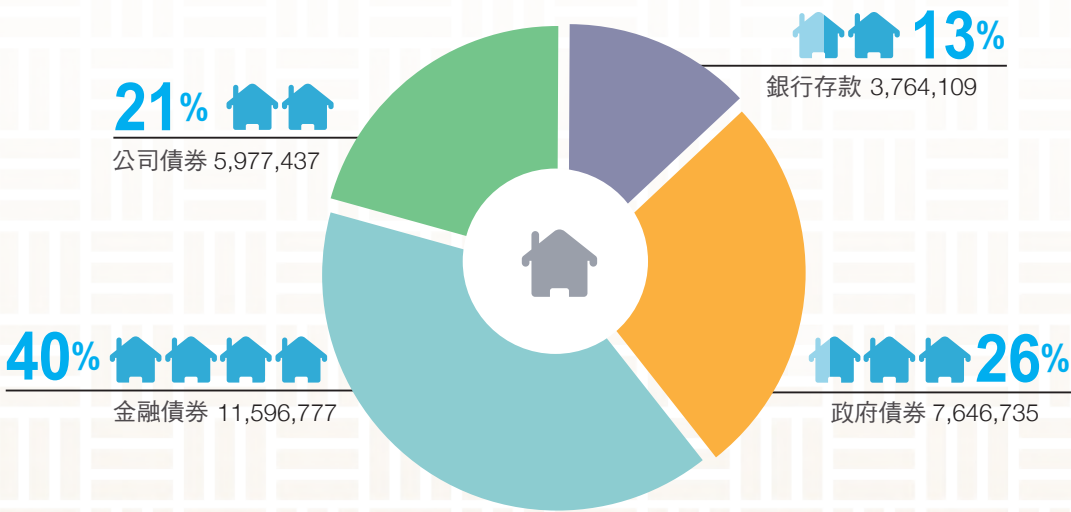
Investment Portfolio

Unit: NTD1,000

Item	2016		2017		Change in Amount
	Amount	%	Amount	%	
Bank Deposits	3,885,353	14.9%	3,764,109	13.0%	(121,244)
Government Bonds	6,652,199	25.5%	7,646,735	26.4%	994,536
Financial Bonds	10,638,666	40.7%	11,596,777	40.0%	958,111
Corporate Bonds	4,940,887	18.9%	5,977,437	20.6%	1,036,550
Securities(ETF)	0	0.00%	3,876	0.01%	3,876
Total	26,117,105	100%	28,988,934	100%	2,871,829

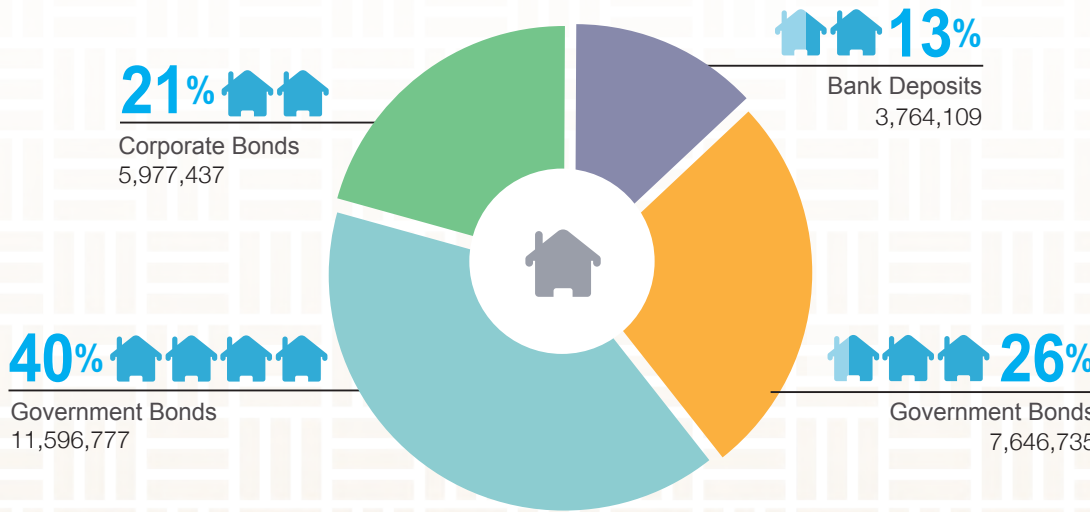
2017 年可運用資金配置

單位：新臺幣仟元



2017 Investment Portfolio

Unit: NTD1,000







日期 Date

大事紀 Major Events

2017/1/14

參與臺北市消防局舉辦之「119 防災宣導活動」  
Participating in the “2017 119 Disaster Risk Reduction Advocacy Event” organized by the Taipei City Fire Department.



2017/3~9

赴桃園市防災社區進行宣導  
Holding disaster risk reduction training programs at designated communities in Taoyuan City.

2017/3/7

赴臺灣土地銀行進行宣導  
Holding a business promotion event in Land Bank of Taiwan.



2017/3/30

赴桃園平鎮區公所進行宣導  
Holding advocacy event at the Civil Affairs Office of Pingzhen District, Taoyuan City.

2017/3/31

完成住宅地震保險超額賠款再保合約 2017 年第二層續約  
Completing contract renewal of 2017 2nd layer excess of loss reinsurance.

2017/4~11

補助偏鄉學校參觀 921 地震教育園區  
Subsidizing schools in rural areas to visit the 921 Earthquake Museum.

2017/4/6

參與臺南市政府「全民防衛動員暨災害防救（民安 3 號）演習」活動  
Participating in the “National Defense Mobilization Exercise and Disaster Risk Reduction and Relief Drill (Min-An 3rd)” organized by Tainan City Government.

2017/4/26

參加臺北市內湖區「防災公園開設測試暨教育宣導活動」  
Participating in “Pilot Run of the Disaster Risk Reduction Park & Education Activities” in Neihu District, Taipei City.

# 大事紀

Major Events – 2017



2017/4/27

參與桃園市政府「全民防衛動員暨災害防救（民安3號）演習」活動

Participating in the “National Defense Mobilization Exercise and Disaster Risk Reduction and Relief Drill (Min-An 3rd)” organized by the Taoyuan City Government.



2017/4/29

參與新北市政府消防局舉辦之「防災宣導園遊會」

Participating in the “Disaster Risk Reduction Advocacy Event” organized by the New Taipei City Fire Department.



2017/5/3

地震保險基金第六屆第一次董事會選任陳董事明仁續任董事長。

Appointing Dr. Ming Jen Chen to be the chairman of TREIF at the board of directors' meeting in 2017.

2017/5/5

參與臺北市大同區公所「疏散避難演練及玉泉防災公園開設置教育宣導活動」

Participating in “Evacuation Pilot Run of the Disaster Risk Reduction Park &amp; Education Activities” in Datong District, Taipei City.

2017/5/24

赴臺灣銀行進行宣導

Holding a business promotion event in Bank of Taiwan.

2017/5/25

拜訪內政部消防署

Visiting the National Fire Agency, Ministry of the Interior Affairs.

2017/6/20~29

理賠機制模擬演練情境演練

Conducting claim settlement simulation drill.







2017/6/26

合格評估人員第 58 期北區複訓  
Conducting the 58th Qualified Adjuster Retraining Program in northern region.

2017/6/27

合格評估人員第 49 期南區新訓  
Conducting the 49th Qualified Adjuster Training Program in southern region.

2017/6/30

合格評估人員第 50 期中區新訓  
Conducting the 50th Qualified Adjuster Training Program in central region.

2017/6/30

完成住宅地震保險超額賠款再保合約 2017 年第一層續約  
Completing contract renewal of 2017 1st layer excess of loss reinsurance.

2017/7

參與臺北市消防局消防營活動  
Participating in the “Fire Rescue Camp activities” organized by the Taipei City Fire Department.



2017/7/18

合格評估人員第 51 期北區新訓  
Conducting the 51st Qualified Adjuster Training Program in northern region.

2017/7/26

參加臺北市文山區公所「景華防災公園開設測試暨教育宣導活動」  
Participating in the “Pilot Run of the Disaster Risk Reduction Park & Education Activities” in Wenshan District, Taipei City.

2017/7/27

合格評估人員第 59 期南區複訓  
Conducting the 59th Qualified Adjuster Retraining Program in southern region.

2017/7/28

合格評估人員第 60 期中區複訓  
Conducting the 60th Qualified Adjuster Retraining Program in central region.

2017/8/17

進駐人員第 10 期南區新訓  
Conducting the 10th Training Program for Stationed Personnel in southern region.

2017/8/19

北區建築師講習會  
Conducting workshop for architects in northern region.



2017/8/22

合格評估人員第 61 期北區複訓  
Conducting the 61st Qualified Adjuster Retraining Program in northern region.

2017/8/24

合格評估人員第 52 期南區新訓  
Conducting the 52nd Qualified Adjuster Training Program in southern region.

2017/8/25

合格評估人員第 53 期中區新訓  
Conducting the 53rd Qualified Adjuster Training Program in central region.

2017/8/26

北區土木 / 結構 / 大地技師講習會  
Conducting workshop for civil engineers, structural engineers, and geotechnical engineers in northern region.

2017/8/31

理賠機制模擬演練 - 檢討會暨頒獎典禮  
Conducting claim settlement simulation drill – review meeting and award ceremony.



2017/9/6

合格評估人員第 54 期北區新訓  
Conducting the 54th Qualified Adjuster Training Program in northern region.

2017/9/9

中區建築師講習會  
Conducting workshop for architects in central region.



2017/9~11

與南投縣政府合辦全民國防與地震防災教育活動四格漫畫 / 書法 / 防災地圖教學教案設計 / 防災教育教具設計類 / 有獎徵答競賽

Sponsoring and co-organizing “All-out Defense and Earthquake Disaster Prevention Education 4-Panel Comic, Calligraphy, Disaster Evacuation Map Design Teaching Program, Disaster Education Teaching Material Design and Fun Quiz Contest” with Nantou County Government to advocate earthquake disaster risk reduction.

2017/9~11

與嘉義縣政府合辦地震防災教育學藝書法 / 海報 / 真人版四格漫畫 / 有獎徵答競賽

Sponsoring and co-organizing “Calligraphy, Poster, Limitation of 4-Panel Comic, and Fun Quiz Contest” with Chiayi County Government to advocate earthquake disaster risk reduction.

2017/9~11

與臺東政府合辦地震防災教育宣導藝文繪畫 / 漫畫 / 書法 / 海報 (海報主題：政策性住宅地震保險宣導) 競賽

Sponsoring and co-organizing “Drawing Contest on Earthquake Disaster Education, Comics, Calligraphy, Poster (Poster’s theme: Residential Earthquake Insurance Policy Education) Making Contest” with Taitung Government.

2017/9~11

與新竹市政府合辦地震防災藝文活動繪畫 / 四格漫畫 / 書法 / 海報 (海報主題：政策性住宅地震保險宣導) 競賽

Sponsoring and co-organizing “Earthquake Disaster Events’ Drawings, 4-Panel Comic, Calligraphy, and Posters (Poster theme: Residential Earthquake Insurance Policy Education)” with Hsinchu City Government to advocate earthquake disaster risk reduction.

2017/9~11

與基隆市政府合辦地震防減災教育藝文繪畫 / 海報 / 貼圖人氣王 / 有獎徵答競賽

Sponsoring and co-organizing “Earthquake Disaster Education Drawings, Poster, Sticker, and Fun Quiz Congtest” with Keelung City Government to advocate earthquake disaster risk reduction.

2017/9/12

合格評估人員第 62 期中區複訓

Conducting the 62nd Qualified Adjuster Retraining Program in central region.

2017/9/14

進駐人員第 9 期南區複訓

Conducting the 9th Retraining Program for Stationed Personnel in southern region.

2017/9/14

完成再保險經紀人評選作業

Completing reinsurance broker tender

2017/9/19

進駐人員第 10 期北區複訓

Conducting the 10th Retraining Program for Stationed Personnel in northern region.

2017/9/21

合格評估人員第 63 期南區複訓

Conducting the 63rd Qualified Adjuster Retraining Program in southern region.

2017/9/22

修正「財團法人住宅地震保險基金資金運用作業要點」，提高購買公司債之限額。

Amending the “TREIF Reserve Funds Manipulation and Operation Guidelines” to lift the corporate bond buying limit.

2017/9/23

中區土木 / 結構 / 大地技師講習會

Conducting workshop for civil engineers, structural engineers, and geotechnical engineers in central region.

2017/9/25~28

舉辦第 11 屆世界巨災管理機制論壇會議

Hosting the 11th World Forum of Catastrophe Programmes



2017/9/28

合格評估人員第 63 期南區複訓

Conducting the 63rd Qualified Adjuster Retraining Program in southern region.

2017/10/18

合格評估人員第 64 期北區複訓

Conducting the 64th Qualified Adjuster Retraining Program in northern region.

2017/10/20

電腦系統異地備援演練

Disaster System Recovery Drill.

2017/10/21

參與臺北市信義區「敦親睦鄰暨愛心義賣親子園遊會」活動

Participating in the “Caring for Your Neighbors and Charity Fundraising Fair” in Xinyi District, Taipei City to advocate earthquake disaster risk reduction.

2017/10/21

參與金融監督管理委員會辦理之各類保險之「扶弱 x 樂齡 安居 x 樂行 千人彩繪馬拉松暨保險宣導園遊會」宣導活動

Participating in “Drawing Marathon Fun Fair” with the Financial Supervisory Commission.







## 2017 年本基金與南投縣政府合辦 地震防災教育宣導藝文比賽

- 2017/10/27 進駐人員第 11 期中區新訓  
Conducting the 11st Training Program for Stationed Personnel in central region.
- 2017/10/30 赴國立宜蘭大學土木系進行宣導  
Holding advocacy event at the Civil Engineering Dept. of Yilan University.
- 2017/11/2 合格評估人員第 55 期北區新訓  
Conducting the 55th Qualified Adjuster Training Program in northern region.
- 2017/11/11 參與臺灣金融服務業聯合總會與臺中市政府共同主辦之「2017 年金融服務愛心公益嘉年華」公益活動  
Participating the "2017 Financial Sector Charity Festival" co-organized by Taiwan Financial Services Roundtable and Taichung City Government.
- 2017/11/23 合格評估人員第 65 期北區複訓  
Conducting the 65th Qualified Adjuster Retraining Program in northern region.
- 2017/11/25 中區土木技師講習會  
Conducting workshop for civil engineers in central region.
- 2017/12/16 參與臺灣金融服務業聯合總會與高雄市政府共同主辦之「2017 年金融服務愛心公益嘉年華」公益活動  
Participating the "2017 Financial Sector Charity Festival" co-organized by Taiwan Financial Services Roundtable and Kaohsiung City Government.
- 2017/12/20 完成基金財產總額增加為新臺幣 2,261,201,794 元登記。  
Registering the growing assets of TREIF as NTD 2,2261,201,794.
- 2017/12/31 完成住宅地震保險共保組織合約 2018 年續約  
Completing the 2018 Residential Earthquake Insurance Co-insurance contract renewals.



南投縣 竹山國小 李育霖



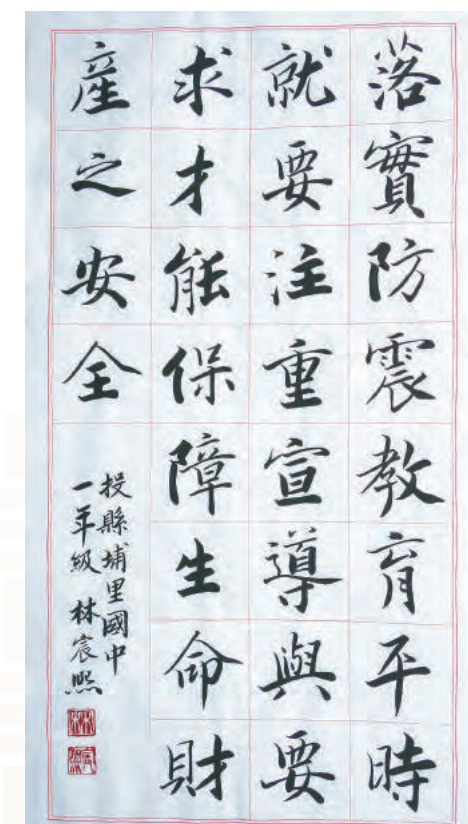
南投縣 南投國小 洪寧蔚



南投縣 中寮國中 廖羿喬



南投縣 成城國小 謝海鈞



南投縣 埔里國中 林宸熙





## 2017 年本基金與嘉義縣政府合辦 地震防災教育宣導藝文比賽



嘉義縣 三和國小 朱家永



嘉義縣 民雄國中 朱韻如



嘉義縣 民雄國小 何宜蓁



嘉義縣 大崎國小 盧又萍

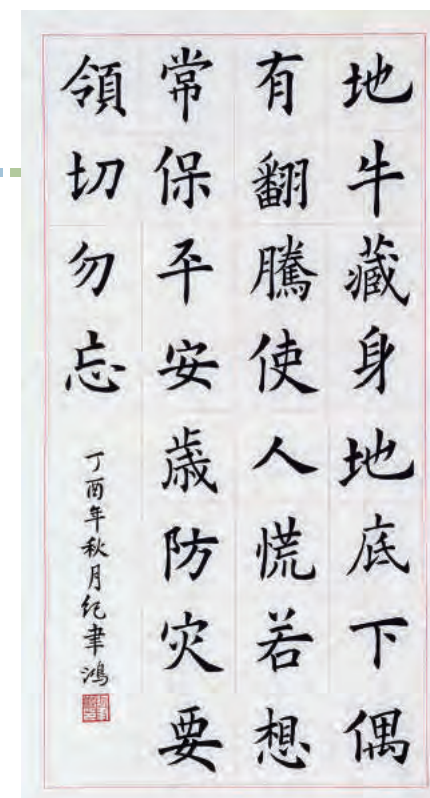


嘉義縣 民雄國小 吳瑞文

## 2017 年本基金與新竹市政府合辦 地震防災教育宣導藝文比賽



新竹市 龍山國小 劉定澤



新竹市 新竹國小 紀聿鴻



新竹市 三民國中 白若潔



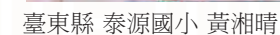
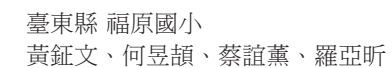
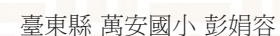
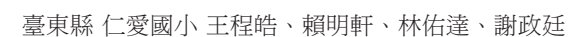
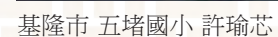
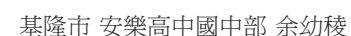
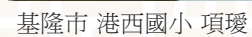
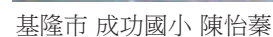
新竹市 光武國中 許聿晴



新竹市 載熙國中 羅孟圓



## 🏠 2017 年本基金與臺東縣政府合辦 地震防災教育宣導藝文比賽







## Annual Report

# TREIF

## 2017



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本年報封面及內頁作品選自於地震保險基金與基隆市、新竹市、南投縣、嘉義縣及臺東縣政府合辦之國中小學地震教育藝文競賽得獎作品。

The art works, featured in the front cover and inside pages of this annual report, were selected from the award winning pieces of Earthquake Education Art and Culture Contests for Elementary and Junior High School students, which were co-organized by TREIF and Governments of Keelung City, Hsinchu City, Nantou County, Chiayi County and Taitung County.

