

# 7. 災害時活動困難度を考慮したまちの総合的な危険度

## Combined Risk in Light of Emergency Response Difficulty

皆さんのまちの地震の危険性を分かりやすく示すために、地震の揺れによる建物倒壊や火災の危険性に、避難や消火・救助など、各種の災害対応活動の困難さを加味して一つの指標にまとめたものが「災害時活動困難度を考慮した総合危険度」です。

災害時の避難や消火・救助活動などを支援する空間として、道路が重要な役割を果たすという視点から、防災都市づくりや道路整備の指標となるとともに、都民がまちの地震災害への対応のしやすさ（困難さ）を考え、地震に対する備えに活用されることを想定しています。

### 災害時活動困難度を考慮した総合危険度の測定方法

災害時活動困難度を考慮した総合危険度は、町丁目ごとに、地震の揺れによる建物の倒壊や火災の危険性の度合いに、避難や消火・救助など、各種の災害対応活動の困難さを加味した「災害時活動困難度を考慮した

建物倒壊危険度」と「災害時活動困難度を考慮した火災危険度」の順位の数字を合算し、その数値に基づき順位付けを行い、評価しました。

### 災害時活動困難度を考慮した総合危険度の測定結果

総合危険度の高い地域は、建物倒壊危険度、火災危険度ともに高かった荒川・隅田川沿いのいわゆる下町地域一帯に分布しています。

具体的には、足立区から荒川区、葛飾区西部、墨田区、江東区北部に広がる地域で、また、品川区南西部や北

区北部から豊島区北部に広がる地域でも危険度が高くなっています。

さらに、道路整備状況を考慮した結果、木造建物が密集している環状七号線沿いの中野区や杉並区にかけても、危険度の高い地域が分布しています。（P21参照）

### 災害に強い都市を目指して

総合危険度の高い地域では、建物の建替えによる耐震性の向上や不燃化をはかるとともに、道路、公園などの整備を進めるなど、周辺町丁目も含めて、様々な震災対策を重層的、総合的に進めていく必要があります。

なかでも、災害発生時の避難や消火・救助活動を支える道路の整備は重要です。

また、いつ起こるかも知れない地震に対しては日頃からのまちづくりや対策と備えが重要です。

To make it easier for residents to understand the level of risk their community faces from an earthquake, building collapse risk and fire risk from earthquake shaking have taken into account the difficulty of emergency response such as evacuation and firefighting/rescue activities, and these have been combined into one indicator called “combined risk in light of emergency response difficulty.”

From the perspective that roads serve an essential role as space to support evacuation and firefighting/rescue in a disaster, “combined risk in light of emergency response difficulty” will serve as an indicator for building a disaster-resilient city and road development, and it is also hoped that residents will use this to consider the ease or difficulty of response to earthquake disasters in their community and make preparations accordingly.

#### How Combined Risk in Light of Emergency Response Difficulty Is Assessed

Combined risk in light of emergency response difficulty was assessed by aggregating the degree of building collapse or fire risk due to earthquake shaking and the ranking of “building collapse risk in light of emergency response difficulty” and ranking of “fire risk in light of emergency response difficulty.” The community was then ranked and rated according to this figure.

#### Results of Combined Risk in Light of Emergency Response Difficulty Assessment

Communities with high combined risk are found in the Shitamachi area along the Arakawa and Sumidagawa rivers where there was high risk for both building collapse and fire; specifically, the areas from Adachi Ward to Arakawa Ward, western Katsushika Ward, Sumida Ward, and northern Koto Ward. The southwest portion of Shinagawa Ward and the area from northern Kita Ward to northern Toshima Ward are also at high risk.

In addition, when the road situation was taken into consideration, communities at high risk were also found in the area from Nakano Ward to Sugunami Ward along Ring Road No. 7, which has a high concentration of close-set wooden houses. (see p.21)

#### Aiming for a Disaster-resilient City

Along with promoting the reconstruction of buildings for improved earthquake resistance and fire-resistance, various multilayered and comprehensive measures, including the development of roads and parks, must be promoted within areas at high risk and their neighboring communities. The development of roads that support evacuation and firefighting/rescue activities in the event of a disaster is particularly important.

As an earthquake can strike at any time, it is also essential to always be prepared for one by promoting community development and relevant countermeasures.





**Q. 今回調査の結果、前回調査（5年前）より危険度ランクが大きくなった地域がありますが、その理由はなんですか？**

Why did the risk ranking of some communities improve substantially from the previous study of five years ago?

**A.** 町丁目ごとにランク変動の理由は異なりますが、今回の調査では、

- ・ 市街地再開発事業などによる災害に強い市街地の整備
- ・ 街路事業による延焼遮断帯の整備
- ・ 建物の建替えによる不燃化の促進

などによる市街地の改善が防災性の向上に大きく貢献していることが明らかになりました。

例えば、下図の豊島区東池袋四・五丁目地区では、道路整備と一体的に進める沿道まちづくり事業により、木造建物の割合が下がり、前回（第6回）調査時点と比較し、火災危険度ランクが東池袋四丁目では3から2、東池袋五丁目では5から4へ改善されました。



平成13年度時点（2001）



平成23年度時点（2011）

凡例	Legend
耐火構造	Fireproof structure
準耐火構造	Semi-fireproof structure
防火構造	Fire prevention structure
木造	Wooden structure
道路	Road
公園・運動場等	Park, athletic field, etc.

Although the reasons vary from community to community, this study revealed that improvement of urban zones through development of disaster-resilient zones based on urban redevelopment projects; construction of firebreak belts through road development projects; and promotion of fire-resistance through building reconstruction contributed largely to improving disaster resistance.

For instance, in the following 4- and 5-chome districts of Higashi-Ikebukuro, Toshima Ward, the percentage of wooden houses was reduced through a roadside community development project implemented together with road development. Compared to the previous study, the fire risk rating of Higashi-Ikebukuro 4-chome was improved from 3 to 2, and from 5 to 4 for Higashi-Ikebukuro 5-chome.

**Q. 区市町内での危険度の評価をしたいと思いますが、できますか？**

Is it possible to assess the risk of a municipality?

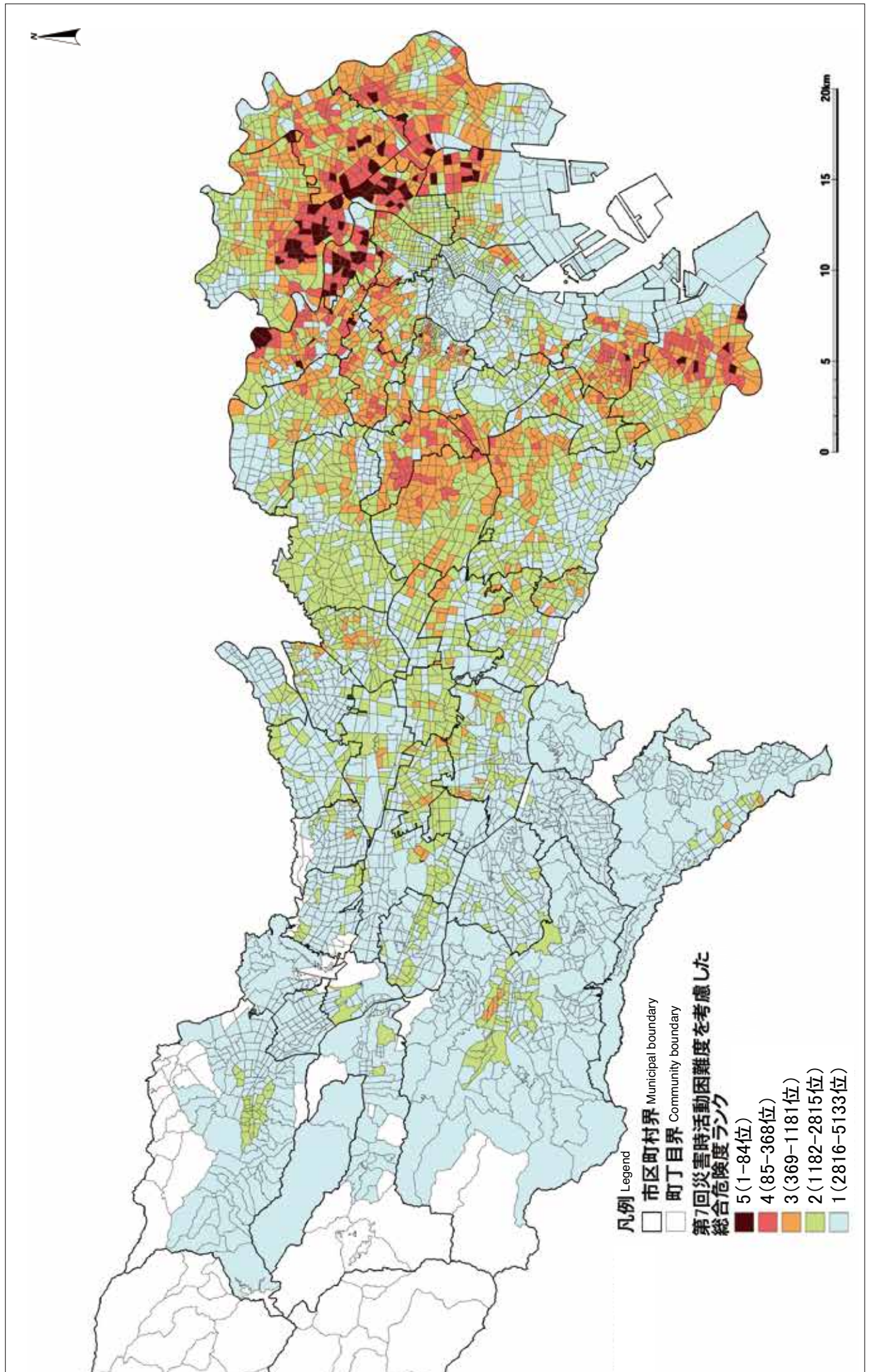
**A.** 地域危険度は都市整備局のホームページで公表しています。区市町内の町丁目の順位により、評価することは可能です。区市町ごとの特性を考慮して、地域危険度の測定結果を有効に活用してください。


Community risk figures are provided on the website of the Bureau of Urban Development, Tokyo Metropolitan Government. The municipality's risk can be assessed through the ratings of its communities. We hope residents will take into account the characteristics of their municipality and make good use of the community risk assessment results.



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Map of Combined Risk Ratings in Light of Emergency Response Difficulty





## あなたのまちの 地域危険度

Your Community's Earthquake Risk



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