



## 71 Cities in Japan At 'Very High' Risk of 3-Meter-High Tsunami Within the Next 30 Years

On January 24, the Earthquake Research Committee of the Japanese government issued a new report announcing the probability of a tsunami associated with an earthquake in the Nankai Trough (Southern Sea Trough) off Japan's southeast coast in the near future.

The report states that the likelihood of a large tsunami of more than three meters high hitting areas along the Pacific coast of Japan within the next 30 years is "very high," including impacts in the Tokai and Kyushu regions.

Scientists hope that the report — which uses the newest tsunami probability data shared by the government for the first time — will contribute to better disaster prevention measures, such as maintaining and updating seawalls.

### Looking at More Likely Seismic Events to Calculate Risks

In 2012, the government announced the estimated height of a tsunami in the event of a giant 9.1 magnitude (M) megathrust earthquake. However, such large earthquakes are considered to be very rare, and the lack of past records made it impossible to calculate the probability of such an event.

The January 24 report sets aside the question of a rare megathrust earthquake and instead focuses on the probability of a tsunami caused by an earthquake in the range of magnitude 7.6 to 9.0, which is said to be likely to occur in the future. The probability was calculated for each of the 352 municipalities and 24 prefectures along the coast.

The studies show that there is a "very high" (more than 26%) probability of a major earthquake within the next 30 years followed by a tsunami of more than three meters high hitting the coast of 71 municipalities and 10 prefectures from the Tokyo, Tokai, Kinki, Shikoku, and Kyushu regions.

The Japan Meteorological Agency uses the three-meter mark as an indicator to announce major tsunami warnings. At this level, old wooden houses are likely to be washed away and the risk of human injury is higher. According to the committee, a probability of 26% within the next 30 years is equivalent to "once in 100 years."

Naoshi Hirata, the chairman of the committee, emphasized the point, saying: "There is a very high chance that this (Nankai Trough earthquake and tsunami) will happen in our lifetime. Do not misunderstand this data as simple safety information, but take it as an opportunity to think about what you can do" to be prepared.

### Knowledge is Key to Survival

The report also revealed the "very high" (more than 26%) likelihood of an even more damaging tsunami of five meters or higher for 29 municipalities in seven prefectures, including Shizuoka, Mie, Wakayama, and Kochi.

The report did not find the same likelihood of 26% or more for a tsunami of 10 meters or higher for any region. Nevertheless, it assessed that there is still a "high" probability (6% to less than 26%) that such a 10-meter tsunami could occur, putting 21 municipalities in six prefectures at risk.

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Researchers estimate the probability of an earthquake in the Nankai Trough within the next 30 years is as high as 70% to 80%. The probability of tsunami was calculated by analyzing past smaller-scale Nankai Trough earthquakes, together with data on the epicenters and areas where plates have collapsed over the years.

The committee hopes to further encourage countermeasures to strengthen community resilience against the risk of disaster through its research. To this end, within the next decade, it aims to sequentially calculate the probability of earthquake-caused tsunamis for each of the various regions throughout Japan.

Source: **71 Cities in Japan At 'Very High' Risk of 3-Meter-High Tsunami Within the Next 30 Years**  
<https://japan-forward.com/71-cities-in-japan-at-very-high-risk-of-3-meter-high-tsunami-within-the-next-30-years/>

## 南海トラフ地震の津波確率 71市区町村で「非常に高い」 国が初公表

政府の地震調査委員会は24日、近い将来の発生が懸念される南海トラフの地震に伴う津波の確率を公表した。主に東海から九州地方にかけての太平洋沿岸の広い範囲で、今後30年以内に高さ3メートル以上の大津波が非常に高い確率で押し寄せるとした。国が津波の確率を算出したのは初めてで、防潮堤の整備などの防災対策に役立てるよう求めた。

政府は南海トラフ地震で発生する津波について、マグニチュード（M）9・1の最大級の巨大地震が起きた場合の高さを平成24年に公表した。だが、この巨大地震は非常にまれで、過去に発生した記録がないため確率は計算できなかった。

今回はこの巨大地震を除外し、今後発生する可能性が高いM7・6～9・0の地震が起きた場合の津波を評価。沿岸の24都府県352市区町村ごとに確率を算出した。その結果、30年以内に地震が発生し、海岸で高さ3メートル以上の津波が押し寄せる確率は、東京都の島嶼（とうしょ）部から東海、近畿、四国、九州までの10都県71市区町村で「非常に高い」とされる26%以上となった。

3メートルは気象庁が大津波警報を発表する目安としている高さで、古い木造住宅は流され人的被害が生じる可能性が高い。調査委によると、30年以内に26%という確率は「100年に1回」に相当するという。

平田直委員長は「非常に高い確率で、生きている間に起きると思うべきだ。安全情報と誤解せず、自分ができることを考えるきっかけにしてほしい」と話す。

より大きな被害が生じる高さ5メートル以上の津波の確率は静岡、三重、和歌山、高知などの7都県29市町村で26%以上となった。10メートル以上の津波は、26%以上の地域はなかったが、6県21市町が6%以上26%未満で「高い」とされた。

南海トラフ地震の発生確率は30年以内に70～80%と非常に高い。津波の確率は過去の南海トラフ地震を分析し、震源域や断層が大きくずれた場所などの組み合わせから計算した。調査委は10年以内をめどに全国各地の地震に伴う津波の確率を順次算出し、リスクに応じた対策を促す方針だ。

出典:南海トラフ地震の津波確率 71市区町村で「非常に高い」 国が初公表  
<https://www.sankei.com/life/news/200124/lif2001240024-n1.html>