

こうのすまい

KOUNOSUMAI

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取組課題

南海トラフ連動地震によって大きな被害が予想される漁村集落には津波避難ビルを建てられる平地が少なく、二次避難場所になりうる高所は傾斜地で既存施設もほとんどない。津波到達水位よりも上に、ふだん使いもできる避難建物を建設しておく必要がある。被災直後でも高所に仮設住宅を建設できる方法を検証しておくことも、大きな意味での先行高地移転、事前復興である。

貢献内容

ふだんは田舎暮らしを体験するドミトリーだが、沿岸に津波が来た時は地域の避難所になる。既存の山道の両側に、大きな土木工事を行わずに、等高線に沿って細長い小建築を建て並べる。仮設住宅が必要となった際も戸数確保のためには斜面の活用が必要なため、仮設住宅にも使える構法が検討された。広域災害時には、中山間地域は重機の配備も材料の供給も主要都市より後回しになると想定し、大工道具があれば人力で建てられること、材料も地元で備蓄しやすいことが重要で、柱材だけ用意しておけば骨組みが完成する建築、備蓄と一体となった林業全体の振興も視野に入れた建築構法としている。

CHALLENGE

This fishing village is expected to have severe damage from a Nankai Trough megathrust earthquake. Flat areas of land are limited for constructing tsunami evacuation buildings, and the high grounds for potential secondary evacuation sites are hilly with few existing buildings. Evacuation buildings are required to be built, which can also be used during non-emergency times, on areas located above the tsunami danger zone. Examination of methods for constructing temporary housing units on the high ground, which are viable even right after a disaster, is part of the preparation for relocation to the higher ground, or preparatory restoration in the broad sense.

CONTRIBUTION

The buildings are used as a dormitory for experiencing rural life and can become an evacuation site for locals if a tsunami strikes the coast. Without undertaking major construction, small, slender buildings were made along a contour line on both sides of the existing mountain road. Since it is necessary to build temporary housing units on the hillside to ensure sufficient numbers when they are needed, construction methods applicable for temporary housing were considered. At the time of a wide-scale disaster, the supply of heavy equipment and materials to semi-mountainous areas is likely to be delayed from major cities. Therefore, it is important that the buildings can be built by human-power with carpenter tools, and that materials can be locally stockpiled. By having pillar materials on-hand, building frames can be constructed. Combined with stockpiling, this building method also takes into account the revitalization of the forest industry as a whole.

