

対象国防災分野における開発ニーズ(課題)

- ・北部・中部地域を中心に斜面の土砂崩壊により、道路等のライフラインの断絶や人命・資産の損失等、社会経済に甚大な被害が発生
- ・事前防災投資が推奨されているが対策が不十分
- ・土砂災害発生後の迅速な二次被害防止策の欠如

提案製品・技術

- ・ハイパワーフェンス工法: 斜面下方に柵を建て、上方からの落石・崩壊土砂から道路等を防護。コンクリート基礎が不要で、斜面にも設置可能
- ・パワーモンスター: 多段積み大型土嚢を繊維ロープと繊維ネットで一体化した構造で斜面崩壊発生後の二次被害から道路等を防護。本復旧までの仮設対策

調査概要

- ・調査期間: 2025年5月～2026年4月
- ・対象国・地域: ベトナム国 (ハノイ市、ホーチミン市、ハイフォン市、ダナン市、イエンバイ省(現ラオカイ省)、クアンニン省、ザライ省、カインホア省)
- ・調査概要: 沿道や路線等の落石・崩壊土砂対策が求められている地域を調査し、提案製品が活用できる土砂災害対策ニーズを調査する。政府機関や建設コンサルタント・ゼネコン、販売代理店や現地生産を想定する事業パートナー候補へのヒアリング及び意見交換を実施し、競合工法、規格認証(TCCS認証等)手続き、現地商慣習及び現地生産の可能性を確認する。



ハイパワーフェンス工法



パワーモンスター

ビジネスモデル

- ・自治体等から斜面災害対策の設計業務を請け負う建設コンサルタントに製品設計等のコンサルテーションを実施し、設計へのスペックインを実現
- ・対策工事を受注したゼネコンに対し、社内ベトナム人材を中心に現地法人が施工方法等支援
- ・現地法人は原則、現地サプライヤーから部材調達及び現地生産を行い、ゼネコン・ローカル商社等に販売

対象国に対し見込まれる成果(開発インパクト)

- ・災害時の落石・崩壊土砂被害の抑制
- ・道路や線路のアクセスと地域経済の持続性の確保
- ・地域住民の安全な生活の実現
- ・現場条件に適した工法・土砂災害対策の実現
- ・土砂災害被害の抑制による政府・自治体の災害復興費用の削減・抑制

Development issues in the country/sector

- Landslides in the northern and central regions have caused severe socio-economic damage, including the disruption of lifelines such as roads, and loss of life and property.
- Pre-disaster investment is encouraged, but practical measures are not sufficiently implemented.
- Post-landslide secondary measures are not adequately prepared.

Products/Technologies of the Company

- High Power Fence Method: A fence is erected at the bottom of a slope to protect roads and other structures from rockfall and collapsing soil from above. It can be installed on slopes. No concrete foundation is required.
- Power Monster : The structure, which combines large sandbags stacked in multiple layers with fiber ropes and fiber nets, protects roads and other structures from secondary damage following a slope collapse. This is a temporary method till full recovery procedure to be given.

Survey Outline

- Survey period: May, 2025~April, 2026
- Country/Area: Vietnam (Hanoi, Ho Chi Minh, Hai Phong, Dan Nang, Yen Bai (Current: Lao Cai), Quang Ninh, Quang Ngai, Gia Lai, Khanh Hoa)
- Survey Overview: A survey will be conducted in areas along roads and routes where measures against rockfall and landslides are required. The survey includes the study on landslide prevention measures needs that the proposed product can be applied. In addition, interviews will be conducted to exchange opinions with government authorities, construction consultants, general contractors, trading companies and business partners for local production. The survey also identify competing construction methods, standard certification procedures (TCCS certification, etc.), local business practices, and the possibility of local production.



High Power Fence Method



Power Monster

Business Model

- Design consultations to construction consultants who undertake design works for slope disaster prevention from government entities, etc., are provided to promote the product spec-in to the design.
- RT Vietnam, a local subsidiary, supports construction methods to general contractors by utilizing Vietnamese personnel.
- RT Vietnam procures parts and materials from local suppliers and produce them locally in principle, and sells them to general contractors, local trading companies, etc.

Expected Social Impact in the Country

- Damage caused by rockfall and landslide during disasters is reduced.
- Road & rail access and the sustainability of the local economy will be ensured.
- The safety of local communities will be guaranteed.
- Construction methods and landslide prevention measures suited to on-site conditions can be realized.
- The government recovery expense can be reduced as landslide damage will be minimized.

As of April, 2026