

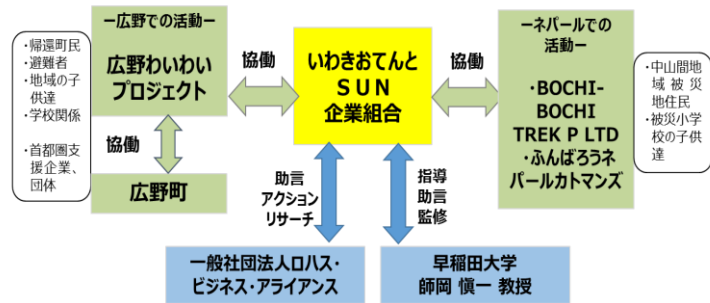
福島浜通りにおける自然エネルギー・農業再生による復興手法のネパール震災復興での実装

早稲田大学理工学術院 師岡慎一 / いわきおてんとSUN企業組合

研究・活動の目的と概要

1. 福島浜通りでの災害復興における市民活動の実践、他地域での実装を、大学や研究者によるアクションリサーチの手法を用い検証し、後世に伝え残す。
2. 支援を受ける側であった福島がその経験を生かし、同じ震災で苦悩するネパール支援を子供達の学び育成のもと実施。未来を担う人材育成につなげる。
3. 今回の取組を通じて、災害復興における市民活動の役割と経緯、成果を早稲田大学の研究活動として検証、共有。福島を経験を世界に役立てられる地域再生バイブルとする。

研究・活動の実施体制



活動の内容と成果

福島の子供達は学ぶ原動力となり、地域の希望となる。ネパールの子供達も夢を描き学ぶ力となる。国を超えて両被災地の明日を作る人材となる。

1. 広野町の農産物を使った商品開発当初、コットンとオリーブでの商品化としたが、コットンは製品の最低ロットが大きく、オリーブは加工所確保、食品衛生法の壁が大きいことから、代わりに米粉を原料にした焼き菓子を製造することとした。



試験販売を3.11に合わせ東京で実施、300袋完売となった。

2. 防災緑地の育樹・管理の実施



ボランティアツアー及び自主点検にて防災緑地の管理を実施

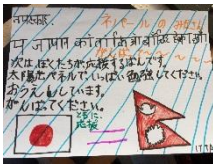
3. ネパールの学校に寄贈するソーラーパネルを手作り
制作したパネルを使って発電の実験



28枚のパネルを手作り

Bブリヂストン社提供EVAフィルムを使ってのパネル作成

4. ネパールの子供達へ応援のメッセージ



子供達はネパールの文化、地理を学びネパール語でメッセージを作成。

ふたば未来学園
広野中学校
南相馬の小学生
三和小学校
好間第一小学校
計125枚作成

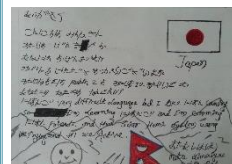


5. ネパール現地ニーズ、調達可能部品調査
6. 学校訪問、講習、支援、子供交流提案



被災したネパールの学校へ寄贈
現地調達したバッテリー、蓄電池、コントローラー、ケーブル類を使って講習会を実施。村人、子供達と教室に明かりを灯した

7. ネパールの子供達から、感謝のメッセージ



子供達は受け取ったメッセージがネパール語で書かれていることに感謝し日本語でメッセージを作成。



8. 福島を経験を生かした活動連携により貧困と教育問題の解決を図り、未電化地域の課題を福島の子供達と連携したソーラー技術により解決方法を検証する

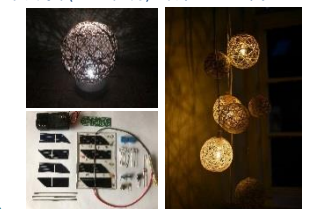


震災の影響で荒廃した農地と流通が止まったイラクサの糸。震災の影響での貧困、学校に行けない子供達



電気の無い村の学校と学びたい子供達
福島との連携で希望の明かりを灯すことができた。

福島の子供達と一緒に学び作る、国を超えた被災地連携。福島とネパールの糸を合わせたランプをミニネパールで灯す計画を東日本大震災7周年(2018年3月)に合わせて立案。



2nd Stage での成果

1. **商品化、防災緑地**: 広野産米粉を使ったビスコッティの試作、試験販売となったが好評であり、その過程において住民組織の体制、首都圏連携の体制が構築され、帰還者の意欲に繋がった。
2. **行政、早稲田大学連携**: 活動を通じ広野町との連携が強固なものとなり、福島県浜通り地域を中心とした福島復興に關する学術研究拠点としての「早稲田大学ふくしま広野未来創造リサーチセンター」が5月25日に開設されることが決定。
3. **国際貢献による子供達の成長**: 活自然エネルギーの学びをネパール支援に繋ぐことにより、学びの目的が同じ震災を受けた友達を助けることになり、子供達が今までにない意欲で取組んだ結果、学校側より継続要望が多数寄せられている。
4. **活動に関わる人の飛躍的な増加**: 福島の子供達が、ネパールの子供達を応援、交流することに多くの人が賛同し関わり、

今後の展開

- ・子供達との講習会の継続実施。
- ・ふくしま広野未来創造リサーチセンターと連動した学びからの地域復興再生の具現化。
- ・ふくしまの子供達と、ネパールの子供達が共同し助け合いながら取り組むSDGs活動の実施。
- ・国内外メディアへを活用した積極的な広報の実施。

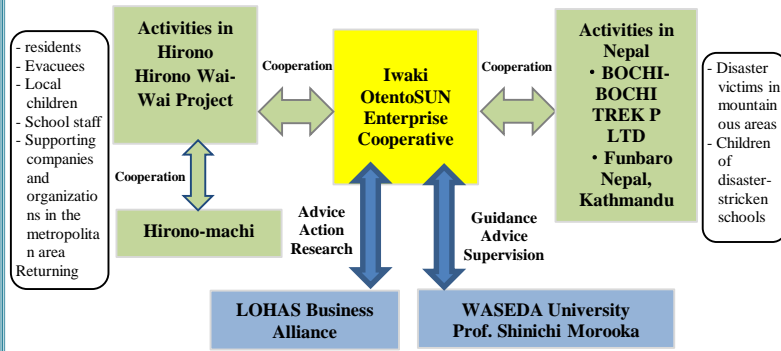
Restoration through Use of Natural Energy and Revitalization of Agriculture in Hamadori, Fukushima, and Applying It to Earthquake Recovery in Nepal

SHINICHI MOROOKA (FACULTY OF SCIENCE AND ENGINEERING, WASEDA UNIVERSITY) / IWAKI OTENTOSUN ENTERPRISE COOPERATIVE / NPO HIRONO WAI-WAI PROJECT

Objectives and Overview of the Research and Activities

1. Action research methods will be examined by the university and researchers and passed onto future generations based on the implementing of civic activities in earthquake recovery in Hamadori of Fukushima, and applying it to other regions.
2. Fukushima, which was on the receiving end of aid and support, provides support for the studies and development of children in Nepal, which is suffering similarly in the aftermath of an earthquake disaster. This contributes to the development of leaders for the future.
3. Through these initiatives, the role, process and results of civic activities in earthquake recovery efforts will be examined and shared as research activities carried out by Waseda University. Doing so will enable the experience gained through Fukushima to be made use of throughout the world.

Implementation System for Research and Activities



Contents and outcome of activities

The children of Fukushima become a driving force for learning, and the hope of the region. The children of Nepal become a force for learning to dream and aspire. These children cross national boundaries to become human resources for creating the future in the two areas affected by disaster.

1. Product development using agricultural products from Hirono

Initially, efforts were made to commercialize cotton and olive. However, the minimum lot size for cotton products was too large, while there were significant barriers to securing processing locations and complying with food sanitation laws for olives. Hence, the decision was made to produce baked confectionery using rice flour.



Trial sales were held in Tokyo coinciding with 3.11, and all 300 packets were sold out.

2. Tree-growing and nursery management in disaster-prevention green spaces



Management of disaster-prevention green spaces through volunteer tours and voluntary inspections

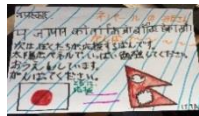
3. Handmade solar panels for donation to schools in Nepal

Using the panels made for power generation experiments



Handmade 28 solar panels
Panels were made with EVA film supplied by Bridgestone

4. Messages of support to children in Nepal



Children learnt about Nepalese culture and geography, and wrote messages in Nepalese.



Futaba Future School
Hirono Junior High School
Elementary school students from Minamisoma
Miwa Elementary School
Yoshimadaichi Elementary School
Total: 125 cards made

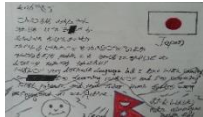
5. Studies conducted on local needs in Nepal, and materials that can be procured

6. Proposed school visits, courses, support, children exchanges



Batteries, accumulators, controllers, and cables procured locally were used to conduct courses. Classrooms were lit, as well as the hearts of the villagers and children.

7. Messages of thanks from the Nepalese children



The children were touched to receive messages written in Nepalese, and made thank-you cards written in Japanese.



8. Efforts were made to solve the issues of poverty and education through joint activities that harness the experiences of Fukushima, and solar technology solutions to the problem of areas without power were tested in cooperation with children from Fukushima.

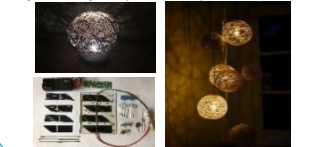


Agricultural land destroyed in the earthquake and nettle strings for which circulation has been suspended. Poverty resulting from the impact of the earthquake, and children unable to attend school.



Village schools with no power and children who want to learn. Through cooperation with Fukushima, the light of hope has been lit.

Learning and creating with children from Fukushima; collaboration between disaster areas across national boundaries. The project to light a mini panel with lamps that combine strings from Fukushima and Nepal has been proposed to coincide with the 7th anniversary of the Great East Japan Earthquake (March 2018).



Outcomes in the 2nd stage

1. **Commercialization, disaster-prevention green spaces:** Biscotti made with rice flour produced in Hirono were well-received in the trial sale, and the process contributed to the establishment of a residential organization system and a system for cooperation with the Tokyo Metropolitan region, giving motivation to returnees.
2. **Collaboration between administrative organizations and Waseda University:** Collaborative ties with Hirono were strengthened through the activities, and it was decided that the Waseda University Fukushima Hirono Future Creation Research Center would be opened on 25 May as an academic research center on Fukushima reconstruction, with a focus on the Hamadori regions of Fukushima Prefecture.
3. **Growth of children through international contribution:** By contributing to assistance for Nepal through learning about natural energy, the children were able to help their friends who have suffered in the earthquake, who have the same learning objectives. As a result of the unprecedented level of motivation among the children, many requests for the continuation of the initiative have been received from the schools.
4. **Dramatic increase in the number of people involved in the activities:** Many people support and are involved in the initiatives to support the children of Nepal by children from Fukushima. The number of participants has reached 789, with 172 elementary and junior high school students, 77 parents, 49 university students, 32 teachers, 79 stationary suppliers, 324 local children, and 56 villagers.

Future outlook

- Continued implementation of courses with children.
- Regional reconstruction and recovery through learning in collaboration with the Fukushima Hirono Future Creation Research Center.
- Implementation of SDGs activities through mutual help between the children of Fukushima and Nepal.
- Active publicity utilizing media from Japan and abroad.