

Mainstreaming Disaster Prevention in Development Assistance



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Tsunami Disaster

Photo taken at Miyako City, Iwate Prefecture
Courtesy of Tarocho Fisheries Cooperative Association



EU Resilience Compendium

“...the increasing frequency and intensity of disasters and humanitarian crises poses a major threat to long-term development, prospects of sustainable growth and poverty reduction of the poorest and most vulnerable people in developing countries.

Crises and shocks worsen already precarious livelihoods and negate opportunities to escape from poverty. The cost of disasters and humanitarian crises is rising, as climate change generates more severe weather related events and the world faces new hazards and pressures such as population growth, urbanization, depleted eco-systems and scarcity of natural resources, as well as complex conflicts.”

Disaster Impacts / 2005-2015 (Source: UNISDR)

- ✓ Lives lost = Over 700,000
 - ✓ Injured = Over 1,400,000 people
 - ✓ Made homeless = 23,000,000 people
 - ✓ Affected = Over 1,500,000,000 people
 - ✓ Total economic loss = \$ 1.3 trillion
 - ✓ 90% of victims = in developing countries
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- Hurricane Ivan (2004) → 200% GDP lost for Grenada
 - Nepal's earthquake (2015) → 1/3 GDP lost
 - Haiti's earthquake (2010) → 120% GDP lost

Over 80% of disasters = weather related

(droughts, tropical storms, rising sea levels)

And “The Economist” (October 3rd) writes...

“if emissions continue on their present course...temperatures could rise by 4.5°C by 2100. Even if countries fully honor their recent pledges, temperatures may still increase by 3.5°C by then.”

“For every 0.6°C rise in temperature, the atmosphere’s capacity to hold water grows by 4%, meaning storms will pour forth with greater abandon.”

“climate change seems to be making dry places drier, killing crops and turning forests into kindling”

“(the Arctic) is warming twice as fast as the rest of the world... If (permafrost soils) thaw... vast amounts of methane...will be released.” (Methane is 25 times more powerful as global-warming gas than CO₂.)

World Population Growth

7,300,000,000 (2015)

→ 9,700,000,000 (2050)

→ 11,200,000,000 (2100)

More people will live in risky locations.

At the 3rd World Conference on Disaster Risk Reduction (DRR), Sendai 14-18, March 2015...

- ✓ PM Shinzo Abe announced “Sendai Cooperation Initiative”
 - \$ 4 billion provided, 40 thousand trained, in 4 years (2015-18)
 - “mainstreaming of disaster risk reduction (DRR)”

- ✓ GOJ’s three concepts for DRR
 - Preventive investment in DRR
 - “Build Back Better”
 - Collaboration : Central government and local communities

- ✓ Sendai Framework for Disaster Risk Reduction 2015-2030
 - guiding principles, action priorities, roles of stakeholders....

Preventive investment in DRR

Subway in Thailand

- From the planning and construction stages, the risk of floods was well-considered.
- Every entrance can cope with water immersion as high as 3.5 meters.
- Ventilation hole is covered with towers to prevent water immersion as high as 3.5 -5 meters.

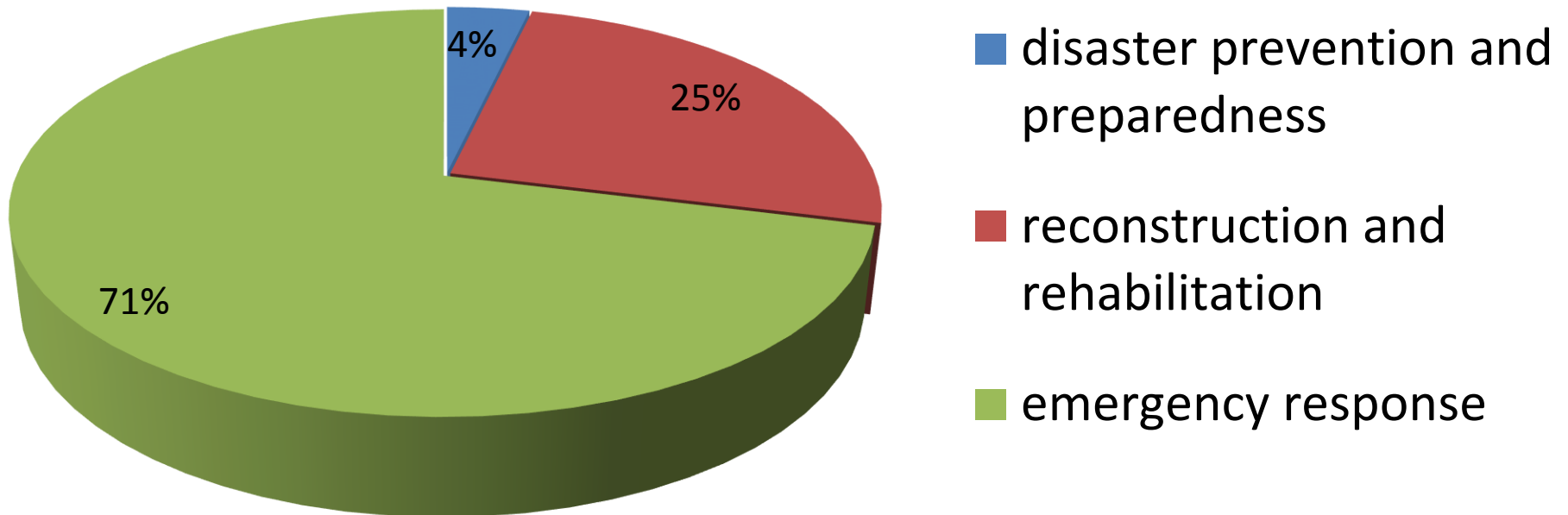


- Withstood the historic floods in Bangkok in July, 2011

“Every dollar invested into DRR could save seven dollars in disaster aftermath.”UNDP study

In reality, Many government/donors are reluctant to invest in DRR.

International Disaster Financing



The Role of Schools & Local Communities

- ✓ People are rescued by neighbors.
- ✓ Schools/Communities are the lead trainers.



Photo source: Daikyu Haketa elementary school, Arakawaku, Tokyo



© Kamaishi-Higashi Junior High School and Kamaishi-Usunomai Elementary School

Women's Leadership in DRR

- In reconstructing afflicted communities
- In giving special attention to vulnerable people and their needs



Local contexts in disaster response

The EU Resilience Compendium says,

“Our assistance must be driven by what works best for vulnerable people in different contexts and our approaches and mechanisms should adapt accordingly.”

Toilet = No.1 inconvenience during a disaster



Destroyed sewage plant



Unusable toilets

Photos provided by LIXIL Co.

Disaster-resistant Toilet

= No water, No electricity, No sewage system

= Applicable in poor countries

November 19 = The World Toilet Day

In the world,

- ✓ 2,5 billion people cannot use decent toilets.
- ✓ 1 billion people excrete under the sky.
- ✓ Over 750,000 = Under-5-year-old deaths from unsanitary conditions each year.
- ✓ Women face particular dangers.
- ✓ Not enough water resources for flush toilets for 7 billion people.

LIXIL が開発している無水トイレ THE SOLUTION | Lixils' Green Toilet

そこでリクシルは、問題を解決でき、さらにコミュニティの形成に役立つ「グリーントイレ」を開発している。
LIXIL HAVE PRODUCED THE GREEN TOILET, A SOLUTION TO THE SERIOUS HEALTH, SAFETY, AND RESOURCE EFFICIENCY PROBLEMS, OF COMMUNITIES IN DEVELOPING COUNTRIES, WHILE ALSO BEING OF BENEFIT FOR LOCAL AGRICULTURE, JOBS AND ECONOMY.

雨水を洗浄に利用 RESOURCE EFFICIENCY

きれいな水も電気も使わないから環境に負担をかけません。

Fresh water and electricity is not required. Rainfall is collected for flushing.



匂いの発生を抑制 ODOUR CONTROL

分けることでアンモニア臭などの発生を抑制し、不快な匂いが軽減されます。

Liquid and solid waste is separated reducing odour emissions.



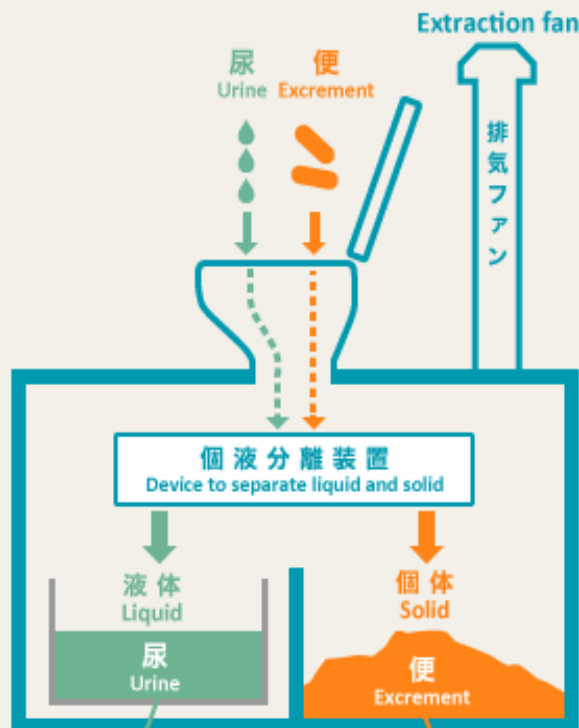
処理が容易 WASTE CONTROL

乾燥し、便の成分が分解されると、体積も重量も小さくなり、運搬も容易になります。

The waste is lighter and easier to manage after it bio-degrades.



LIXIL'S GREEN TOILET



リン(P)や窒素(N)などを回収できます
It collects useful nutrients from food such as Nitrogen and Phosphorus.

菌が便を分解し、匂いも量も減らせます
The bacterial bio-degrading process compacts the waste and reduces odour.

安全な堆肥づくり AGRICULTURE

し尿を肥料化して付加価値に
・野菜作りの生産性アップ
・安全な野菜づくり

Generates value as a compost by
- increasing farming productivity
- converting waste to a safe product



雇用創出 JOBS & ECONOMY

・スタッフの雇用創出
肥料化→販売→収入で維持管理
The compost produced can also be sold creating an income or a business that creates jobs.



疾病の減少 HEALTH & SAFETY

その場で処理するので、病原菌などの拡散を防ぎます。
The system prevents bacteria from spreading and it is hygienic to use.



To conclude,

- ✓ Global Warming...
- ✓ Better balance between economic activities and environmental protection is needed.
 - Better tax regime, globally coordinated ?
- ✓ Corruption damages the environment, brings more natural disasters.
 - ⇒ **Good governance is the key**

Thank you.

