DRF Instruments (Round Table)
Core Principle 3: Disaster Risk Layering

No single financial instrument can address all risks.

<table>
<thead>
<tr>
<th>Hazard Type</th>
<th>Financing Instrument</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Frequency/High Severity</td>
<td>Market-Based Instruments</td>
</tr>
<tr>
<td>Risk Transfer</td>
<td></td>
</tr>
<tr>
<td>High Frequency/Low Severity</td>
<td>Contingent Financing</td>
</tr>
<tr>
<td>Contingent Credit</td>
<td></td>
</tr>
<tr>
<td>Low Frequency/High Severity</td>
<td>Budgetary Instruments</td>
</tr>
<tr>
<td>Budget Reserves/Reallocations</td>
<td></td>
</tr>
<tr>
<td>Reserve funds specifically designated for financing disaster-related expenditures, general contingency budgets, or diverted spending from other programs</td>
<td></td>
</tr>
</tbody>
</table>

Risk transfer for assets such as property insurance or agricultural insurance and risk transfer for budget management like paramedic insurance, cat bonds/swaps.

Financial instruments that provide liquidity immediately after a shock.
Parametric Insurance and Catastrophe Bonds

Shannen Nicole Chua, Nicolas Pondard
How an insurance contract works: **parametric insurance**

**Benefits:**
- Quick payout based on predefined triggers.
- Transparent and objective claims process.
- Customizable coverage tailored to specific risks.

**Limitations:**
- Potential mismatch between trigger and actual losses.
- Limited scope focused on specific triggers or events.
- Pricing challenges related to uncertainty of future losses.

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How parametric insurance works:

1. **Policyholder (government)**
2. **Insurer**
3. **Reinsurance premium (usually annual)**
4. **Reinsurers 1, 2, 3**
5. **Loss adjuster** determines loss
6. **Claim event occurs**
7. **Calculation agent** determines index value (e.g. windspeed, magnitude, estimated loss)
8. **Insurance payout made**
9. **Reinsurance payout made**
What is a Catastrophe Bond?
A Catastrophe Bond (CAT Bond) is an insurance-like security whose potential payouts are secured through a bond issuance. The CAT Bond is an insurance-linked security that transfers a specific set of risks to the capital market.

**Key Features**

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Provide additional HIGHER layer protection</th>
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</thead>
<tbody>
<tr>
<td>Use of Payout</td>
<td>General budget support (not tied to an asset)</td>
</tr>
<tr>
<td>Payout Speed</td>
<td>Can be quicker compared to indemnity insurance coverage (based on trigger used)</td>
</tr>
<tr>
<td>Trigger Structure</td>
<td>Up to the discretion of covered entity</td>
</tr>
<tr>
<td></td>
<td>Can be single step, multi-step – PH did 3-step</td>
</tr>
<tr>
<td>Trigger</td>
<td>Up to discretion of covered entity</td>
</tr>
<tr>
<td></td>
<td>Options: Indemnity, Modeled Loss, Parametric, Industry Loss Index</td>
</tr>
<tr>
<td>Issuer</td>
<td>Entity that can issue bonds and set-up an SPV</td>
</tr>
<tr>
<td></td>
<td>Example: World Bank Capital-at-Risk Notes Facility, Reinsurance Companies (Residential Reinsurance)</td>
</tr>
<tr>
<td>Sponsor</td>
<td>Covered entity – example: Philippine government</td>
</tr>
<tr>
<td>Perils Covered</td>
<td>To the discretion of of covered entity. Philippines chose typhoon and earthquake</td>
</tr>
</tbody>
</table>
Regional mechanism: Risk pools
Ellen Yong
What are Risk Pools?

Each member pays risk-based premium. Pre-defined criteria triggers payouts. The pool retains some of the risk through the pool's joint reserves and capital, and transfer excess risk to the reinsurance and capital markets.

- Why are Risk Pools Relevant?
  - Lower cost of insurance through regional diversification
  - Reduces capital required and reinsurance costs through increased stability
  - Achieve economies of scale through joint risk models and product development
  - Create access to risk transfer expertise and increase risk awareness
Public Asset Protection

Idris Aswin, Greg Fowler
DRF Funds

Yogi Rahmayanti, Dara Lengkong
Adaptive Social Protection

Ekki Syamsulhakim
Opsi Respons PSA

Penting untuk memastikan ketersediaan data untuk menginformasikan *scale-up* yang cepat ke rumah tangga non-penerima manfaat yang terkena dampak.

Social Registry / Pencatatan Sosial (populasi yang berpotensi memenuhi syarat)

Daftar Penerima Manfaat

Populasi Nasional

Rumah tangga yang terkena dampak bencana

**EKSPANSI VERTIKAL**
- Meningkatkan jumlah manfaat pembayaran PS reguler
- Jumlah manfaat yang ditingkatkan untuk sementara

**EKSPANSI HORIZONTAL**
- Memberikan bantuan darurat sementara kepada penduduk yang terkena dampak

**DAN BANTUAN DARURAT**
- Memberikan bantuan darurat sementara kepada penduduk yang terkena dampak

Parameter sistem PS reguler

Jumlah manfaat sistem PS reguler

Penerima manfaat inti dari sistem PS

Mereka yang tidak menerima manfaat reguler, namun terkena dampak guncangan

Penerapan manfaat inti dari sistem PS

Jumlah manfaat yang ditingkatkan untuk sementara

Mereka yang tidak menerima manfaat reguler, namun terkena dampak guncangan

Jumlah manfaat yang ditingkatkan untuk sementara

Mengikuti untuk sementara rumah tangga yang bukan penerima manfaat dalam program PS

Parameter sistem PS reguler

Jumlah manfaat sistem PS reguler