Hurricane Hurry

Caribbean Disaster Risk Financing Game

EXPECTED CONFUSION

Goal: Experience disaster risk financing

Designed by Pablo Suarez and Janot Mendler de Suarez for World Bank DRFTA Team

with thanks to WB DRFI, ACP-EU and GFDRR
Tropical Storm Trajectories
Since 1980

- Cat 2 or stronger
- Cat 1 or weaker
- No impact over Caribbean
Goal = Experience disaster risk financing dynamics

One turn = 1 year

Game = simplified representation of reality

Facilitator’s decisions = cannot be appealed
5 Stakeholders per Country

Directors May Not Exchange Assets
Your Goal: Invest & Develop
WINNERS & LOSERS

Winning Directors: Most Assets
Start with 7 or 8

Losing Directors: Crisis
Total Assets = 4 or less? → Fired!

Losing Country: Catastrophe
Cannot cover all needs in time (before deadline)
or: More than one Director fired

Winning Country: Most Assets
Start with 30
Your Performance depends on:

<table>
<thead>
<tr>
<th>Needs Covered</th>
<th>until Aug.</th>
<th>until July</th>
</tr>
</thead>
<tbody>
<tr>
<td>Productive Assets</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Min. Finance Cash</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>
**Productive Assets**
*Tokens: inputs per year*

Seasonal Conditions
*Shake and Flip Assets*

**Covering Needs**
*Use Assets to cover 12 months*
All Needs covered, No Surplus?

“Just enough”
Cover more than needed?

Announce: **SURPLUS**!

Get 1 New Asset from Marketplace

<table>
<thead>
<tr>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
</tr>
</thead>
<tbody>
<tr>
<td>covered</td>
<td>covered</td>
<td>covered</td>
<td>covered</td>
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</tr>
</tbody>
</table>

Food

<table>
<thead>
<tr>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>covered</td>
<td>Need</td>
<td>Need</td>
<td>Need</td>
<td>Need</td>
<td>SURPLUS? Gain +1 Asset</td>
</tr>
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</table>

**MARKET**
Can’t cover Needs? DEFICIT: Oh No! Stand Up, Ask for Help

If No Aid: Sell one Asset → Cover all Needs

Sit down after problem solved

4 Assets or less? CRISIS! Minister fired
Year 2: Tax & Aid
Min. Finance Gets Annual Budget

At the beginning of each year, Get 2 Coins ‘Tax’
- Help other Ministers
- Save for future use
Min. Finance may cover Deficit

“Oh No!” Stand Up, Ask for Help

Aid: Min. Finance cover each Need
Min. Finance may explain decisions to Cabinet

Not enough cash?

Min. Finance may cover Deficit

Aid:

JAN covered
FEB covered
MAR covered
APR covered
MAY covered
JUN covered
JUL covered
AUG covered
SEP need
OCT $
NOV $
DEC DEFICIT? Lose Asset

Surplus?
Gain +1 Asset

All Needs covered? Pay to Market, then Sit
Or sell 1 asset

“Oh No!” Stand Up, Ask for Help
Could Shocks lead to Big Deficit?
How to Get Funds Fast?

Year 3:
Shocks & Loans
Creditor will give a total of $5m

Min of Finance must repay the Loan, as follows:

- Year 1: $1m
- Year 2: $1m
- Year 3: $2m
- Year 4: $2m
- Year 5: $2m
- Year 6: $2m

If Min. Finance can’t repay, Creditor will take possession of 7 assets

________________________
Name and Signature
(Minister of Finance)
<table>
<thead>
<tr>
<th>HURRICANE CATEGORY</th>
<th>MILD DAMAGE</th>
<th>SERIOUS DAMAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assets disabled one year</td>
<td>Asset Recovery: $1m, one year</td>
</tr>
<tr>
<td>1</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>2</td>
<td>![Image]</td>
<td>![Image]</td>
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<td>3</td>
<td>![Image]</td>
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<td>4</td>
<td>![Image]</td>
<td>![Image]</td>
</tr>
<tr>
<td>5</td>
<td>![Image]</td>
<td>![Image]</td>
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Year 4:
DRFI
Min. Finance will pay each year a premium of 
$ ___

The insurer will deliver to Min. Finance a payout of $ ___, immediately after the occurrence of a *Hurricane making landfall in your country.*
CONTINGENCY LOAN

“Borrow right after shock, Repay later”

Bank will give a total of $___, in case of occurrence of the following extreme event:
[describe verifiable event]

Min of Finance will repay the Loan, as follows:

Year 1: $___
Year 2: $___
Year 3: $___
Year 4: $___ or $___
Year 5: $___ or $___
Year 6: $___

Name and Signature
(Minister of Finance)
Submit signed form to facilitator before deadline.

Consult: ~7 minutes

What financial instrument for all

Not enough capacity

Each country can submit either "Ins" or "Cont. Loan". Funder will choose most favourable submission, at least one country will not get new instrument.

At least one country will not get new instrument.

Funder will choose most favourable submission.
While Funder reviews submission:

Form Mixed Trios: reflect on decisions
Groups of 3 players from different tables & different ministries

After break, each Trio will briefly share
- One emotion
- One insight

Then: one more round!
If you’re back on time 😊
WHAT FINANCIAL INSTRUMENT?

Each trio reflect & share:

- One emotion
- One insight

“Pinky Finger” to choose who speaks for group

One more round
Min. Finance will pay each year a premium of $12.

The insurer will deliver to Min. Finance a payout of $8, immediately after the occurrence of a Cat. 3 Hurricane or greater making landfall in your country.

Name and Signature
(Minister of Finance)
REGIONAL RESERVE FUND
All put money in, use when needed

Pay $1 per year for reserve fund.
Donor will match with $__

A country may draw up to $__ from the Fund if [describe event]

________________________
Name and Signature
(Minister of Finance)
PAY $ __ for Administrative Reform that allows ‘Partial Reappropriation’

*If Relevant Stakeholders Agree:*
- Surplus can become 1 coin for Min. Finance
- Assets can be traded in Market

__________________________
Name and Signature
(Minister of Finance)
Bank will give a total of *up to $6*, in case of occurrence of the following extreme event:

- Declaration of National Emergency
- Agreed Set of Prior Actions
- Development of DRM Framework

Min of Finance will repay the Loan, as follows:

- Year 1-3: No payment
- Year 4-10 $1m per year (IDA covers the rest)

Name and Signature
(Minister of Finance)
Facilitate:
Form groups with similar questions
- Insurance?
- Cat DDOs?
- Contingency Funds?
- Partial Reappropriation?
- Reserve Fund?
- Other?

Then enable small-group discussion / Q&A
Five Steps Towards Strengthening Financial Resilience

1. Take Stock of how disaster response is currently financed
2. Gather risk information / carry out risk assessments
3. Decide on policy priorities
4. Build financial protection strategy
5. Work with and improve existing processes for DRF
MATERIALS
**Transport**

- JAN: covered
- FEB: covered
- MAR: covered
- APR: covered
- MAY: covered
- JUN: covered
- JUL: covered
- AUG: covered
- SEP: Need
- OCT: Need
- NOV: Need
- DEC: covered

**MARKET**

- Surplus? Buy 1 Asset
- Deficit? Sell 1 Asset
- Tax? Get 2 coins
- Aid? Spend coins

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**SURPLUS?**
Gain +1 Asset


**Food**

- JAN: covered
- FEB: covered
- MAR: covered
- APR: covered
- MAY: covered
- JUN: covered
- JUL: covered
- AUG: Need
- SEP: Need
- OCT: Need
- NOV: Need
- DEC: SURPLUS? Gain +1 Asset

**Emerg.**

- JAN: covered
- FEB: covered
- MAR: covered
- APR: covered
- MAY: covered
- JUN: covered
- JUL: covered
- AUG: Need
- SEP: Need
- OCT: Need
- NOV: Need
- DEC: SURPLUS? Gain +1 Asset

**Tourism**

- JAN: covered
- FEB: covered
- MAR: covered
- APR: covered
- MAY: covered
- JUN: covered
- JUL: covered
- AUG: covered
- SEP: Need
- OCT: Need
- NOV: Need
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FinLoans, Inc.
“Borrow Now, Repay later”
(with interest)

Creditor will give a total of $5m

Min of Finance must repay the Loan, as follows:
  Year 1: $1m
  Year 2: $1m
  Year 3: $2m
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If Min. Finance can’t repay, Creditor will take possession of 2 assets

__________________________
Name and Signature
(Minister of Finance)
Min. Finance will pay each year a premium of $____

The insurer will deliver to Min. Finance a payout of $____, immediately after the occurrence of a Cat.____ Hurricane or greater making landfall in your country.

__________________________
Name and Signature
(Minister of Finance)
Min. Finance will pay each year a premium of $ \underline{2}.

The insurer will deliver to Min. Finance a payout of $ \underline{10} immediately after the occurrence of a Cat. \underline{2} Hurricane or greater making landfall in your country.
CONTINGENCY LOAN
“Borrow right after shock, Repay later”

Bank will give a total of $_____, in case of occurrence of the following extreme event:
[describe verifiable event]

Min of Finance will repay the Loan, as follows:

Year 1: $1
Year 2: $1
Year 3: $1
Year 4: $1 or 2
Year 5: $1 or 2
Year 6: $1 or 2

______________________________
Name and Signature
(Minister of Finance)
Bank will give a total of *up to $\_6\_*, in case of occurrence of the following extreme event:

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Min of Finance will repay the Loan, as follows:

- Year 1-3: No payment
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_________________
Name and Signature
(Minister of Finance)
Pay $1 for Administrative Reform to allow ‘Partial Reappropriation’ for disaster risk mgmt

If Relevant Stakeholders Agree:
- Exchange Surplus for 1 coin to Min. Finance
- Assets can be traded in Market
REGIONAL RESERVE FUND
All put money in, use when needed

Pay $\_1\_\_ per year for reserve fund.
Donor will match with $\_\_\_

A country may draw up to $\_\_\_ from the Fund if [describe event]

__________________________
Name and Signature
(Minister of Finance)
GO
GO
GO
GO

GO
TURN
GROW
GROW
Core Principle 1: Timeliness of funding

Speed matters, but not all resources are needed at once.

Can we reduce total resources needed, while accelerating availability of funds?
Core Principle 1: Timeliness of funding

**Forecast-based Financing**: Trigger resources for early action *before the shock*, after science says an extreme event is unusually likely.
**MARCET**

- **Surplus?** Buy 1 Asset
- **Deficit?** Sell 1 Asset
- **Tax?** Get 2 coins
- **Aid?** Spend coins

**JAN** covered
**FEB** covered
**MAR** covered
**APR** covered
**MAY** covered
**JUN** covered
**JUL** covered
**AUG** covered
**SEP** Need
**OCT** Need
**NOV** Need
**DEC**

**SURPLUS?**
Gain +1 Asset

**DEFICIT?**
Lose Asset
Need DEFICIT? Lose Asset

Need DEFICIT? Lose Asset

Need DEFICIT? Lose Asset

Gain +1 Asset

Gain +1 Asset

Gain +1 Asset

SURPLUS?

SURPLUS?

SURPLUS?