

Financial Protection of Public Assets Master Class

Session 4: Structuring Disaster Risk Financing Programs

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Disaster Risk Financing
& Insurance Program



SUPPORTED BY

WORLD BANK GROUP



Learning Objectives

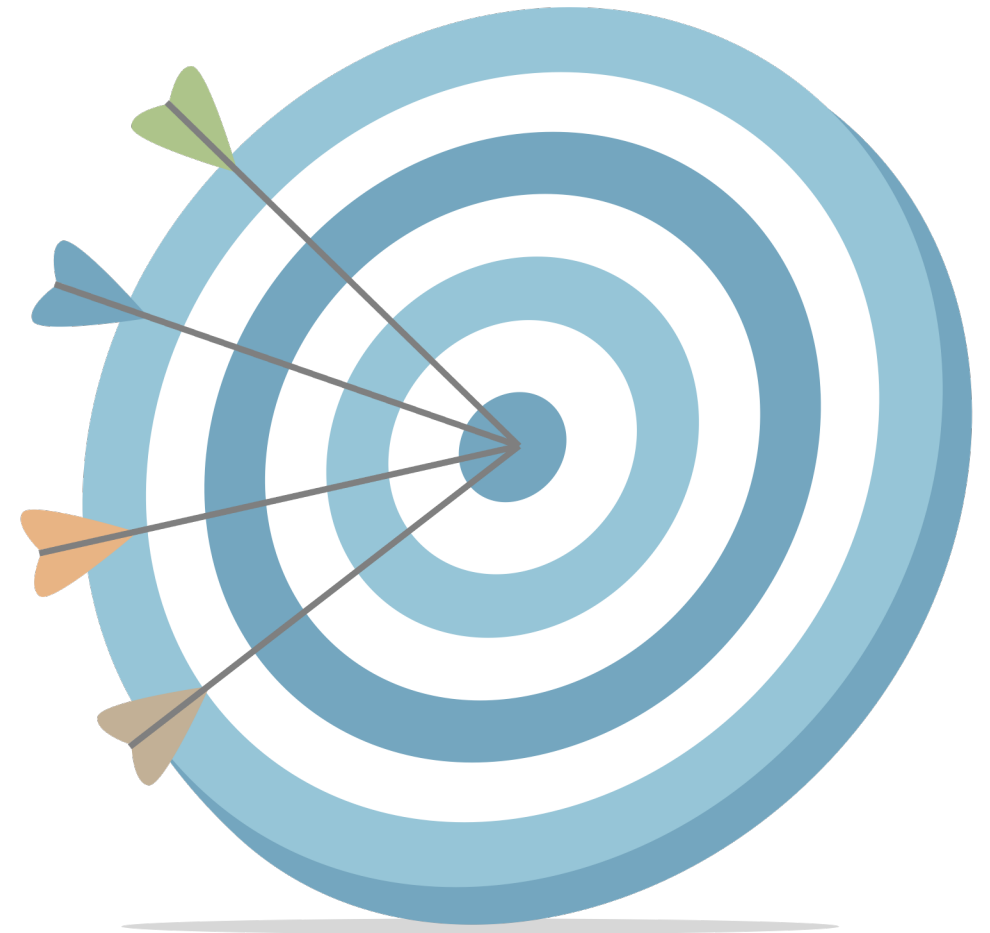
What do we want you to take away from this session?

HOW

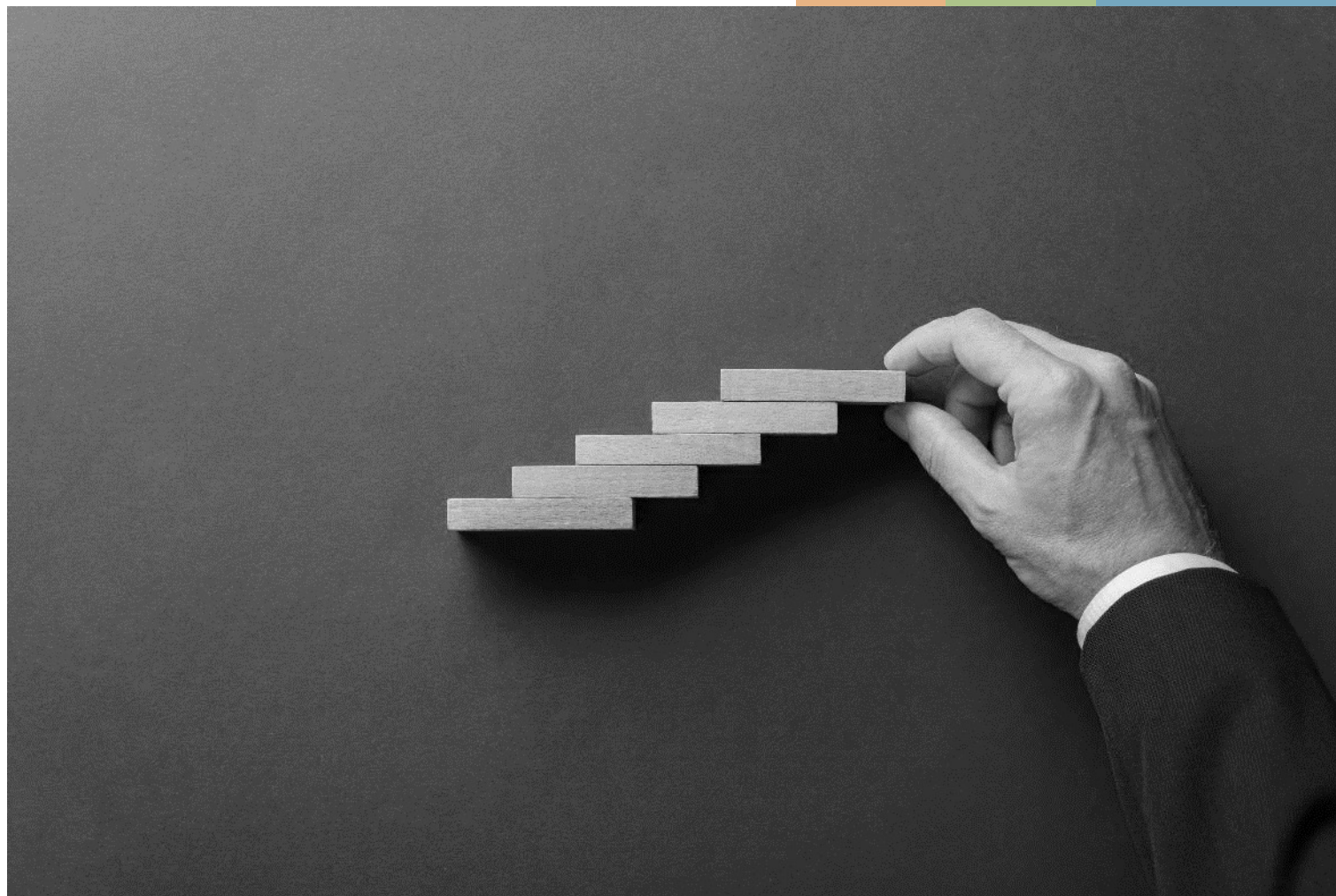
To align DRF instruments with public asset types

HOW

To create combinations of diverse and layered DRF instruments to arrive at a tailored DRF Program



Part 1: Revisiting the Fundamentals



Reminder: What are the fundamental principles of a DRF Program?

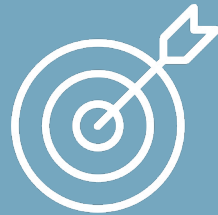
01



Timeliness

DRF delivers funds when they are needed

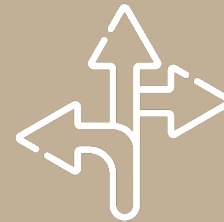
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Targeted

DRF responds to the right hazards

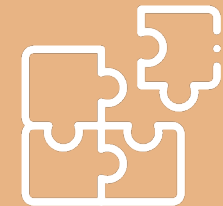
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Directed

DRF funds are allocated to the right beneficiaries

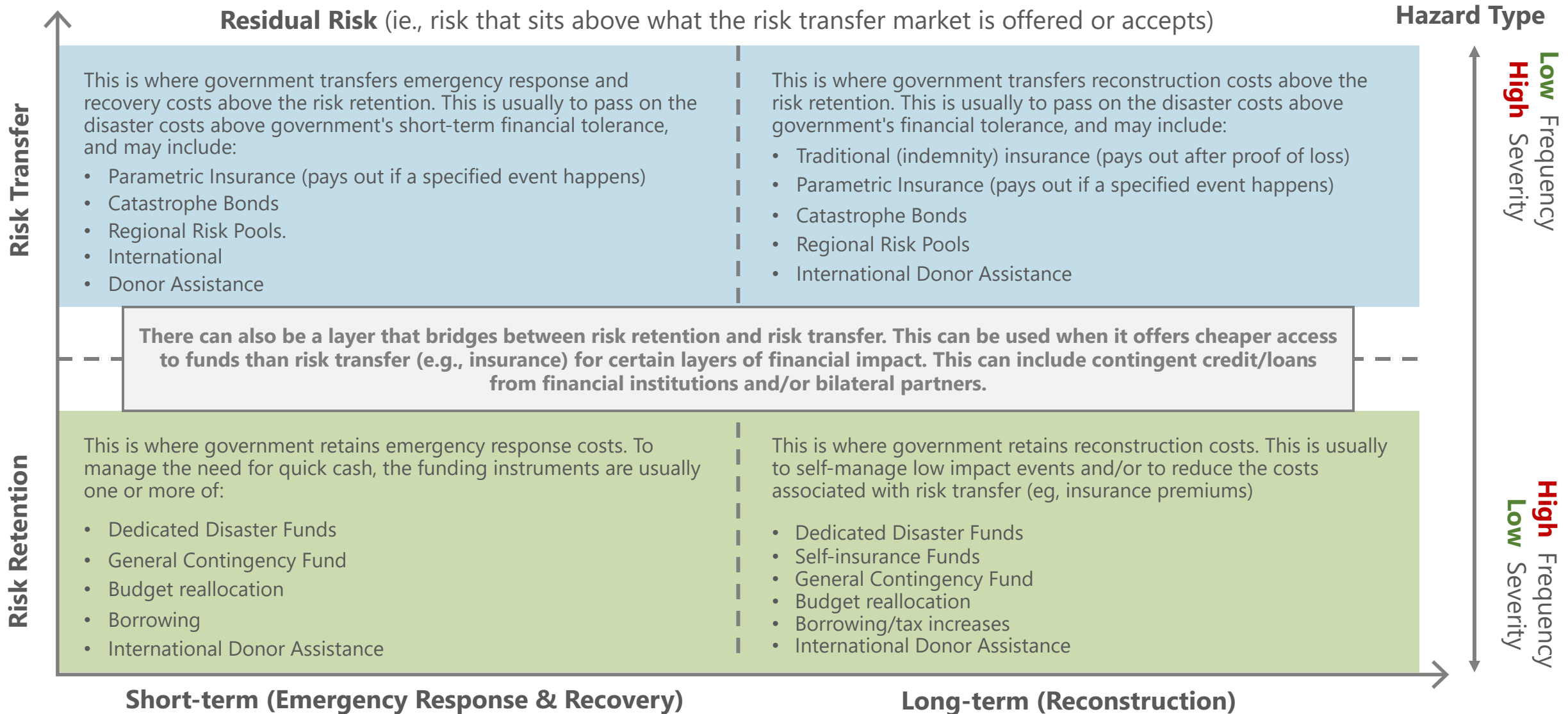
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Diverse

DRF is an effective combination of complementary instruments

Reminder: The general construct of a DRF Program? (PLUG AND PLAY INSTRUMENTS)



Reminder: Other considerations

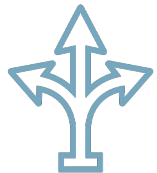


Risk is dynamic. Review your DRF Program on a regular basis as DRF instruments may need to develop and change with you



Risk retention is an important tool because:

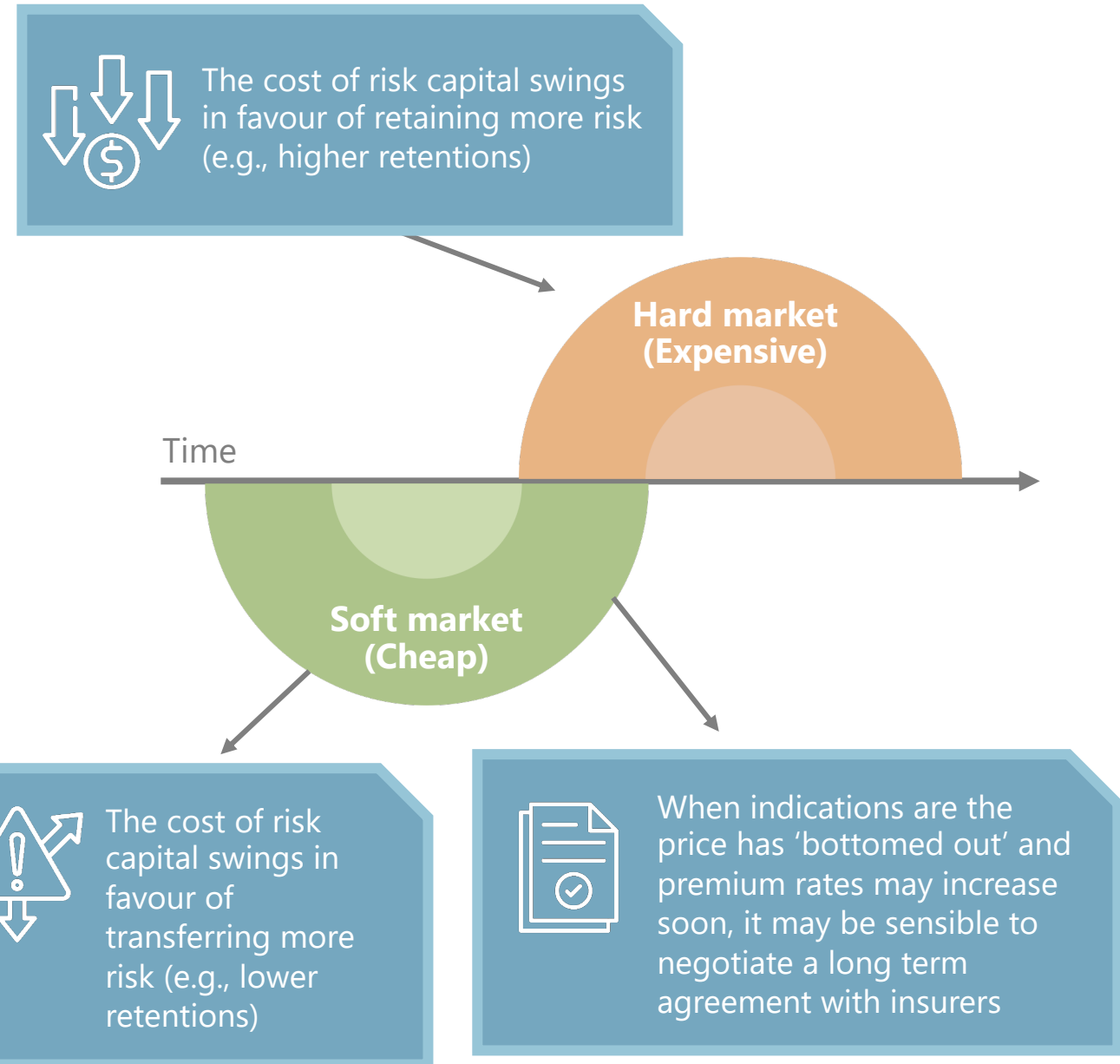
- Having government/line ministries be financially responsible for a layer of disaster related costs incentivizes prudent risk management
- As risk transfer market prices move up and down, risk retention can be used to insulate against price hikes.



Use relevant expertise when it is available. Informed decisions will always be better decisions.



Remember, risk transfer contracts are negotiable instruments



Part 2: Tailoring Public Asset DRF Programs



Tailoring a Public Asset DRF Program

What does 'tailoring' mean?



Understanding your existing Institutional, Data, Operational, and Insurance Market settings (i.e., the 4 Pillars)



Selecting fit for purpose DRF instruments that align with your current settings and the asset types you want protected under the Program

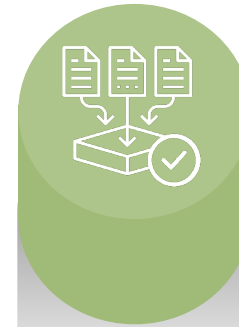


A practical approach to 'tailoring' is provided in the following slides



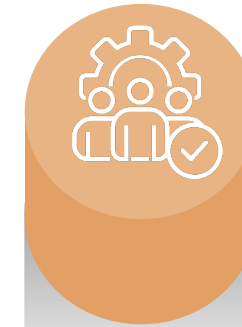
Pillar 1: **Institutional Readiness**

Strategic alignment
Policy & legislation
Funding & financial settings
Governance Pillar



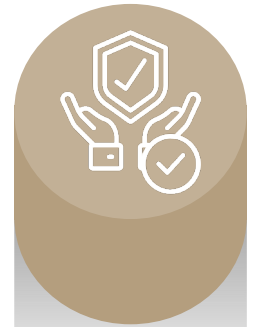
Pillar 2: **Data Readiness**

Data definition & availability
Data management
Risk assessment
Risk models



Pillar 3: **Operational Readiness**

Stakeholder engagement communications & support
Capacity & capability building
Establishing functional architecture
Insurance program activation
Insurance program maintenance
Fund disbursement
Claims management



Pillar 4: **Insurance Market Readiness**

Options assessment & selection
Market development
Market management

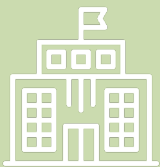
Stage 1: Developing Asset Type Profiles

What is an Asset Profile?

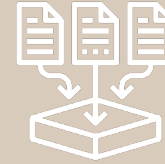
It is a consistent template for each asset type (e.g., hospital, school, road) that prompts a description of:



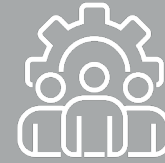
The general criticality of that asset type (i.e., how critical are the financial, economic and social consequences if that asset is damaged/disrupted)



Institutional readiness (e.g., does legislation/regulation cater for this asset type, is there a mandate for governance, management and administration of DRF for this asset type)



Data readiness (e.g., is necessary data available, complete and accurate, and has risk exposure analysis occurred)









Operational readiness (e.g., are management and administration roles filled, has capacity and capability been developed through effective training and education)



Insurance market readiness (e.g., are markets available, reliable, and affordable, and have these markets been engaged)

Stage 1: Asset Profile Template and examples

Roads (Example only)	Schools (Example only)
 <p>Description National road network including xxxxx roads</p>	 <p>Description All government owned primary and secondary schools (buildings only)</p>
 <p>Criticality 1. How important is this asset type to fiscal/economic and social wellbeing (H/M/L) High level of importance</p> <p>2. How likely is the asset type to be impacted by a disaster? (H/M/L) High level of impact likelihood (particularly earthquake and flood perils)</p> <p>3. How affordable is a risk retention only approach for this asset? (H/M/L) Low level of risk retention affordability</p>	 <p>Criticality 1. How important is this asset type to fiscal/economic and social wellbeing (H/M/L) High level of importance</p> <p>2. How likely is the asset type to be impacted by a disaster? (H/M/L) High level of impact likelihood (in the event of a wide-ranging disaster)</p> <p>3. How affordable is a risk retention only approach for this asset? (H/M/L) Medium level of risk retention affordability (in the event of a wide-ranging disaster)</p>
 <p>Institutional readiness General DRF legislation is in place, but it will require specific regulatory amendment to include road infrastructure</p>	 <p>Institutional readiness General DRF legislation is in place, and it already extends to include this asset type</p>

Stage 1: Asset Profile Template and examples

Roads (Example only)



Data readiness

- There is geospatial data available
- There is no asset valuation data available
- Catastrophe modelling has been undertaken for flood and earthquake risk



Operational readiness

- XX Agency has been allocated the mandate for managing and administering DRF for this asset type
- Liaison has commenced with key road related line ministries
- Training and education on road DRF instruments will be required



Insurance market readiness

Insurer engagement has not occurred, but we are aware insurers may require a high self-retention layer before their layer kicks in

Schools (Example only)



Data readiness

- There is an asset register with geospatial, valuation, and construction information for each school
- Some asset values require updating to account for replacement value



Operational readiness

- XX Agency has been allocated the mandate for managing and administering DRF for this asset type
- Education related line ministries have been engaged and are preparing to onboard to a DRF solution
- Training and education for relevant line ministries is being prepared



Insurance market readiness

- Engagement with insurers has commenced with strong indications of appetite and capacity
- A level of risk retention may be required to manage premium expectations

Stage 2: DRF Instrument Profiles

What is a DRF Instrument Profile?

It is a consistent template for each DRF Instrument type (e.g., Self-insurance fund, Indemnity insurance, Parametric insurance) that provides:



A basic description of the relevant DRF instrument, where it sits in the construct of a DRF Program, and its key characteristics



Institutional pre-requisites (i.e., what are the typical legislation/regulation settings, accountabilities and responsibilities for this instrument type)



Data pre-requisites (i.e., what are the typical data requirements for this instrument type)











Operational pre-requisites (i.e., what are the typical management and administration functions, and capacity and capability considerations for this instrument type)



Insurance market pre-requisites (i.e., what (if required) are the typical insurance market engagements for this instrument type)

Stage 2: DRF Instrument Profile Template and examples

Dedicated Disaster Reconstruction Fund	Public Asset Indemnity Insurance
 <p>Description A funded reserve set aside specifically for Central Government's medium to longer-term reconstruction liquidity needs post disaster event</p>	 <p>Description Insurance contracts that pay out the costs of reconstruction once evidence of the financial loss has been assessed and qualified</p>
 <p>DRF Program location Long-term/Risk Retention</p>	 <p>DRF Program location Long-term/Risk Transfer</p>
 <p>Key characteristics</p> <ul style="list-style-type: none"> • Will act as a means to fund in-scope asset reconstruction (primarily public assets, but could extend to include housing for vulnerable communities) • May act as a means to Fund small to medium sized post-disaster reconstruction costs. • Insulates government from committing to significant and sudden budget reallocations (which comes with the opportunity cost attached to diverting funds from development agendas) 	 <p>Key characteristics</p> <ul style="list-style-type: none"> • Can provide predictable and fit-for-purpose funds over the longer-term to support asset reconstruction • As an interim, cost-efficient measure, insurance may be targeted towards critical assets only • Claims require loss-assessment and pay-outs are relative to the cost to repair/replace assets (subject to the asset values declared) • The claims process can be lengthy
 <p>Institutional pre-requisites</p> <ul style="list-style-type: none"> • Requires legislation/regulation • Confirmed value of fund • Rules regarding unspent funds each FY/top up of fund if depleted/scope of application/disbursement protocols and processes 	 <p>Institutional pre-requisites</p> <ul style="list-style-type: none"> • Requires Legislation/regulation • Insurance market regulation (admitted/non-admitted insurers) • Scope of insurance (participation/perils/assets) • Insurance policy terms and conditions • Disbursement protocols and processes • Procurement protocols and processes

Stage 2: DRF Instrument Profile Template and examples

Dedicated Disaster Reconstruction Fund



Data pre-requisites

Requires a mid-level of data/information on:

- Nature of perils covered (e.g., earthquake/flood)
- Who is likely to call upon the fund
- What events will lead to what level of cash-call on the fund
- Likely timing of disbursements post disaster



Operational pre-requisites

Requires capacity and capability to:

- Monitor the fund
- Liaise with stakeholders
- Manage disbursement functions
- Deliver training/education to stakeholders



Insurance market/self-insurance pre-requisites

Does not require an insurer relationship (can be administered internally)

Public Asset Indemnity Insurance



Data pre-requisites

Requires a relatively high level of data/information on:

- Asset locations
- Asset replacement values
- Asset construction, occupation, protection, and exposure data
- Past loss experience



Operational pre-requisites

Requires capacity and capability to:

- Manage and administer the insurer relationships and the annual insurance renewal cycle
- Manage claims disbursement functions
- Deliver training/education to stakeholders

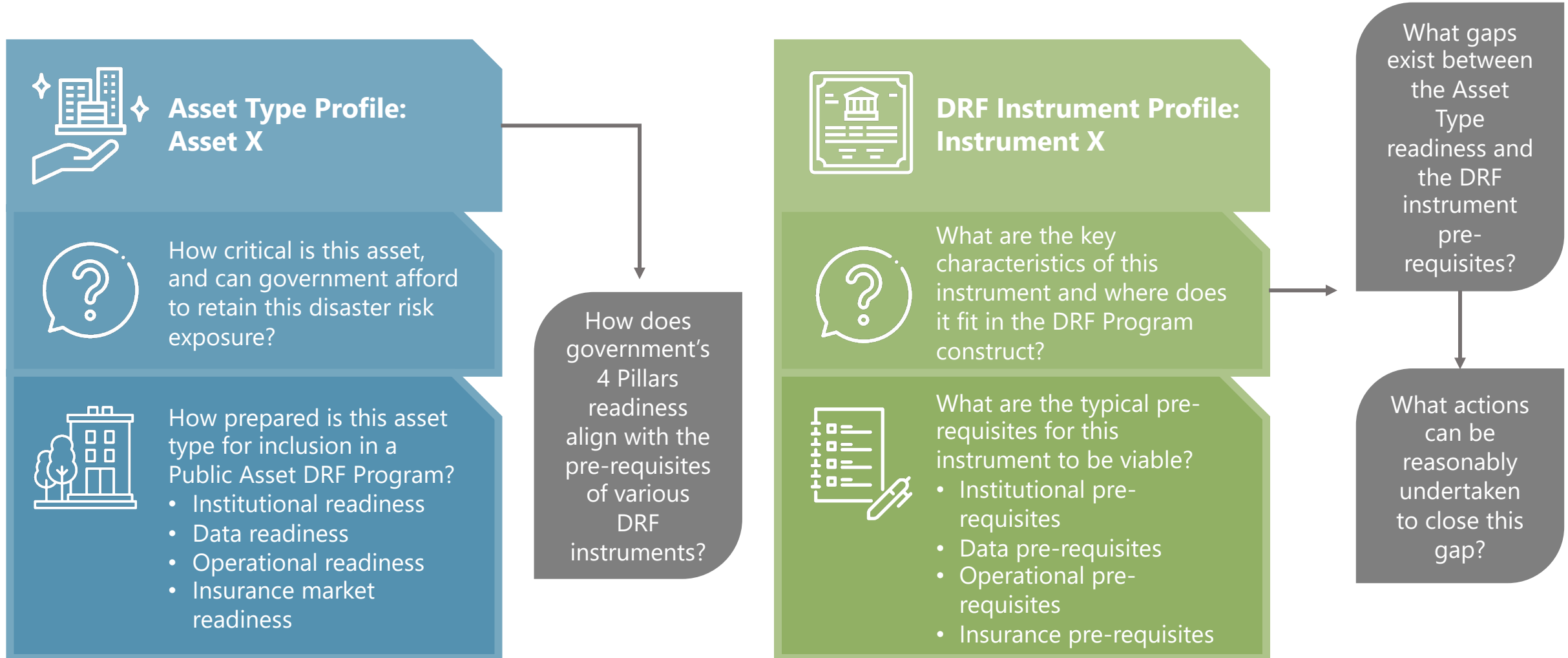


Insurance market/self-insurance pre-requisites











- Requires an insurance market with capacity to underwrite the risk exposure at an acceptable price
- There may be a role for a state insurer to partner with commercial insurance markets in underwriting this risk exposure

Stage 3: Aligning Asset and DRF Instrument Profiles







What does alignment of Asset and DRF Instrument Profiles mean?










Stage 3: DRF instrument to Asset Type Alignment (Schools example: 1)

Schools (Example only)	Line Ministry budget re-allocation	Actions required
 <p>Description All government owned primary and secondary schools (buildings only)</p>	 <p>Description Individual line ministries divert operational budget to manage low value disaster related costs</p>	
 <p>Criticality</p> <ul style="list-style-type: none"> • High level of importance • High level of impact likelihood (in the event of a wide-ranging disaster) • Medium level of risk retention affordability (in the event of a wide-ranging disaster) 	 <p>Criticality Short and/or long-term/Risk Retention</p>	
 <p>Institutional readiness: General DRF legislation is in place, and it already extends to include this asset type</p>	 <p>Institutional Pre-requisites:</p> <ul style="list-style-type: none"> • May not require legislation/regulation • Rules regarding limits to amount of budget which can be diverted • Rules regarding reporting and accounting practices attached to DRF spend allocation 	 <p>Determination of in-scope spend reporting mandate</p>
 <p>Data readiness:</p> <ul style="list-style-type: none"> • There is an asset register with geospatial, valuation, and construction information for each school • Some asset values require updating to account for replacement value 	 <p>Data Pre-requisites: May require LMs to report DRF spend to central government to support all-of-government analysis</p>	 <p>Determination of in-scope spend reporting processes</p>









Stage 3: DRF instrument to Asset Type Alignment (Schools example: 1)

Schools (Example only)	Line Ministry budget re-allocation	Actions required
 <p>Operational readiness:</p> <ul style="list-style-type: none"> • XX Agency has been allocated the mandate for managing and administering DRF for this asset type • Education related line ministries have been engaged and are preparing to onboard to a DRF solution • Training and education for relevant line ministries is being prepared 	 <p>Operational Pre-requisites:</p> <ul style="list-style-type: none"> • Line ministries need to understand the DRF obligation • Line ministries should have internal disbursement protocols and processes 	 <p>Will require some training and education for LMs to understand budget reallocation protocols and attachments with Indemnity Insurance program</p>
 <p>Insurance Market readiness:</p> <ul style="list-style-type: none"> • Engagement with insurers has commenced with strong indications of appetite and capacity • A level of risk retention may be required to manage premium expectations 	 <p>Insurance Market Pre-requisites: Does not require an insurer relationship (can be administered internally)</p>	 <p>Will negotiate different self-insurance attachment points with insurers to determine most cost-effective split between risk retention via budget reallocation and the indemnity insurance program</p>









Stage 3: DRF instrument to Asset Type Alignment (Schools example: 2)

Schools (Example only)	Public Asset Indemnity Insurance	Actions required
 <p>Description All government owned primary and secondary schools (buildings only)</p>	 <p>Description Insurance contracts that pay out the costs of reconstruction once evidence of the financial loss has been assessed and qualified.</p>	
 <p>Criticality</p> <ul style="list-style-type: none"> • High level of importance • High level of impact likelihood (in the event of a wide-ranging disaster) • Medium level of risk retention affordability (in the event of a wide-ranging disaster) 	 <p>Criticality Long-term/Risk Transfer</p>	
 <p>Institutional readiness: General DRF legislation is in place, and it already extends to include this asset type</p>	 <p>Institutional Pre-requisites:</p> <ul style="list-style-type: none"> • Requires Legislation/regulation • Insurance market regulation (admitted/non-admitted insurers) • Scope of insurance (participation/perils/assets) • Insurance policy terms and conditions • Disbursement protocols and processes • Procurement protocols and processes 	 <p>Negotiation of terms and conditions of policy coverage</p>










Stage 3: DRF instrument to Asset Type Alignment (Schools example: 2)

Schools (Example only)	Public Asset Indemnity Insurance	Actions required
 <p>Data readiness:</p> <ul style="list-style-type: none"> • There is an asset register with geospatial, valuation, and construction information for each school • Some asset values require updating to account for replacement value 	 <p>Data Pre-requisites: Requires a relatively high level of data/information on:</p> <ul style="list-style-type: none"> • Asset locations • Asset replacement values • Asset construction, occupation, protection, and exposure data • Past loss experience 	 <p>Arrange for replacement value adjustments to school assets</p>
 <p>Operational readiness:</p> <ul style="list-style-type: none"> • X Agency has been allocated the mandate for managing and administering DRF for this asset type • Education related line ministries have been engaged and are preparing to onboard to a DRF solution • Training and education for relevant line ministries is being prepared 	 <p>Operational Pre-requisites: Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Manage and administer the insurer relationships and the annual insurance renewal cycle • Manage claims disbursement functions • Deliver training/education to stakeholders 	
 <p>Insurance Market readiness:</p> <ul style="list-style-type: none"> • Engagement with insurers has commenced with strong indications of appetite and capacity • A level of risk retention may be required to manage premium expectations 	 <p>Insurance Market Pre-requisites:</p> <ul style="list-style-type: none"> • Requires an insurance market with capacity to underwrite the risk exposure at an acceptable price • There may be a role for a state insurer to partner with commercial insurance markets in underwriting this risk exposure 	 <p>Commence formal engagement with relevant and admitted insurer markets</p>









Stage 3: DRF instrument to Asset Type Alignment (Road example: 1)

Roads (Example only)	Dedicated Disaster Reconstruction Fund	Actions required
 <p>Description National road network including xxxxx roads</p>	 <p>Description A funded reserve set aside specifically for Central Government's medium to longer-term reconstruction liquidity needs post disaster event</p>	
 <p>Criticality</p> <ul style="list-style-type: none"> • High level of importance • High level of impact likelihood (particularly earthquake and flood perils) • Low level of risk retention affordability 	 <p>Criticality Long-term/Risk Retention</p>	
 <p>Institutional readiness: General DRF legislation is in place, but it will require specific regulatory amendment to include road infrastructure</p>	 <p>Institutional Pre-requisites:</p> <ul style="list-style-type: none"> • Requires legislation/regulation • Confirmed value of fund • Rules regarding unspent funds each FY/top up of fund if depleted/scope of application/disbursement protocols and processes 	 <p>Disbursement processes may need reviewing to allow for swift pay-outs to beneficiaries (including rules for emergency response and/or reconstruction cost allocation)</p>  <p>Legislative amendment drafting and approval to account for roads, funding sources, fund ceiling, rules regarding fund carry over and replenishment</p>










Stage 3: DRF instrument to Asset Type Alignment (Road example: 1)

Roads (Example only)	Dedicated Disaster Reconstruction Fund	Actions required
 <p>Data readiness:</p> <ul style="list-style-type: none"> • There is geospatial data available • There is no asset valuation data available • Catastrophe modelling has been undertaken for flood and earthquake risk 	 <p>Data Pre-requisites: Requires a mid-level of data/information on:</p> <ul style="list-style-type: none"> • Nature of perils covered (e.g., earthquake/flood) • Who is likely to call upon the fund • What events will lead to what level of cash-call on the fund • Likely timing of disbursements post disaster 	 <p>Potentially update the CAT. Modelling, preferably to account for timing of financial requirements post event for different loss scenarios</p>
 <p>Operational readiness:</p> <ul style="list-style-type: none"> • XX Agency has been allocated the mandate for managing and administering DRF for this asset type • Liaison has commenced with key road related line ministries • Training and education on road DRF instruments will be required 	 <p>Operational Pre-requisites: Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Monitor the fund • Liaise with stakeholders • Manage disbursement functions • Deliver training/education to stakeholders 	 <p>Training and education for relevant line ministries will be required</p>
 <p>Insurance Market readiness: Insurer engagement has not occurred, but we are aware insurers may require a high self-retention layer before their layer kicks in</p>	 <p>Insurance Market Pre-requisites: Does not require an insurer relationship (can be administered internally)</p>	 <p>Commence engagement with relevant and admitted insurer markets</p>

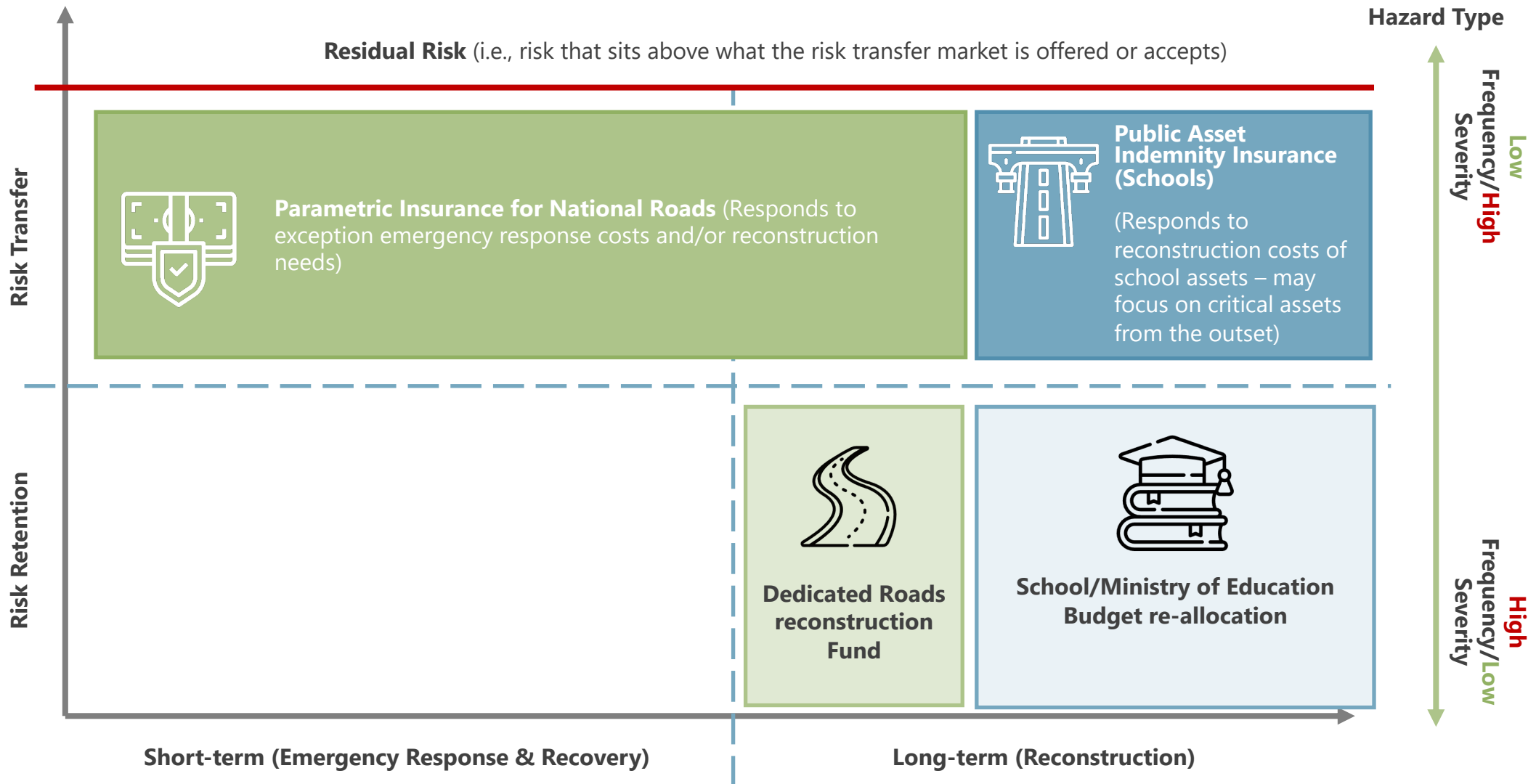
Stage 3: DRF instrument to Asset Type Alignment (Road example: 2)

Roads (Example only)	Parametric Insurance	Actions required
 <p>Description National road network including xxxxx roads</p>	 <p>Description Insurance contracts that pay out a pre-agreed amount when a prescribed event occurs, irrespective of the financial loss incurred.</p>	
 <p>Criticality</p> <ul style="list-style-type: none"> • High level of importance • High level of impact likelihood (particularly earthquake and flood perils) • Low level of risk retention affordability 	 <p>Criticality Short and/or long-term/Risk Transfer</p>	
 <p>Institutional readiness: General DRF legislation is in place, but it will require specific regulatory amendment to include road infrastructure</p>	 <p>Institutional Pre-requisites:</p> <ul style="list-style-type: none"> • Requires Legislation/regulation • Insurance market regulation (admitted/non-admitted insurers) • Scope of insurance (participation/perils/assets) • Insurance policy terms and conditions • Disbursement protocols and processes • Procurement protocols and processes 	 <p>Disbursement processes may need reviewing to allow for swift pay-outs to beneficiaries (including rules for emergency response and/or reconstruction cost allocation)</p>  <p>Legislative amendment drafting and approval</p>

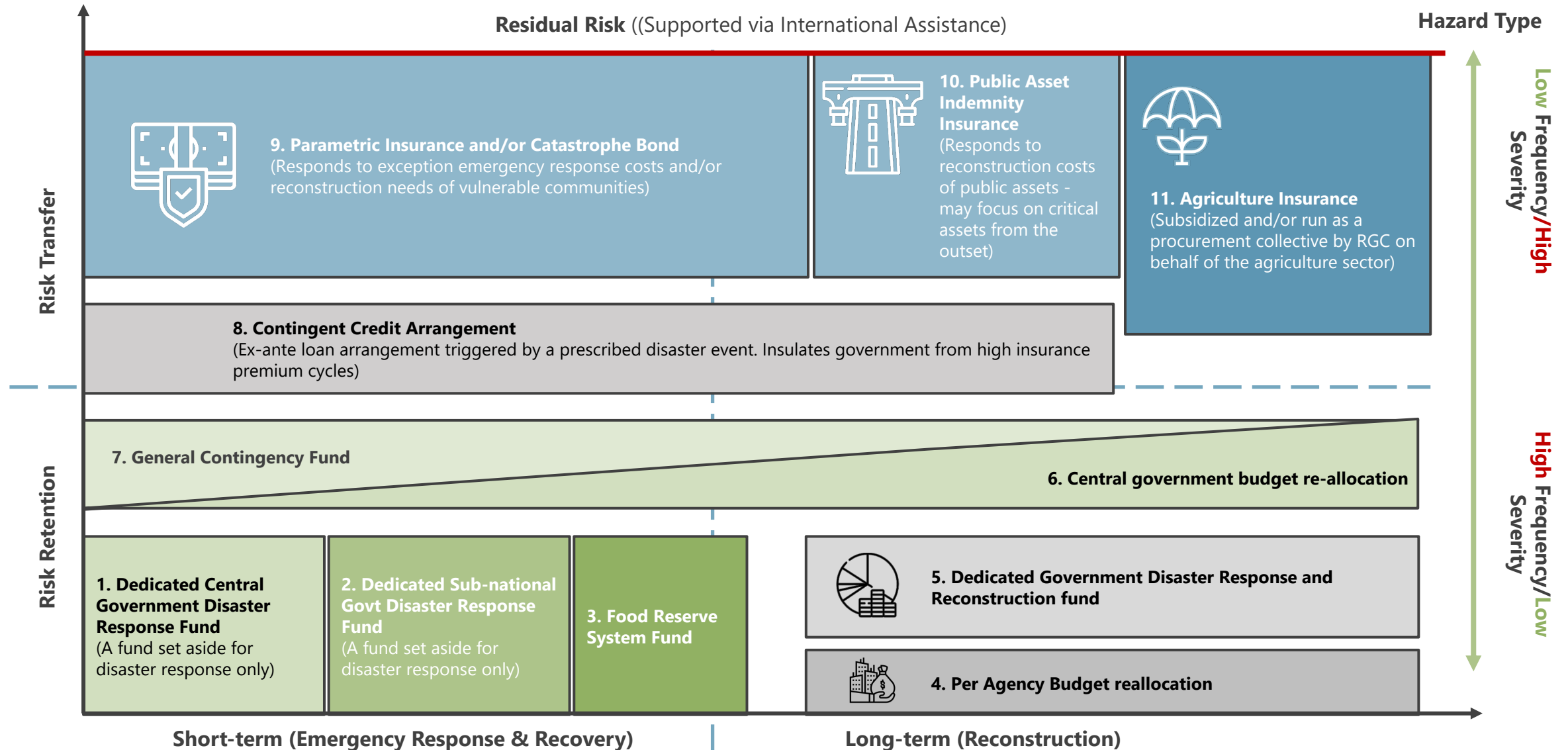
Stage 3: DRF instrument to Asset Type Alignment (Road example: 1)

Roads (Example only)	Parametric Insurance	Actions required
 <p>Data readiness:</p> <ul style="list-style-type: none"> • There is geospatial data available • There is no asset valuation data available • Catastrophe modelling has been undertaken for flood and earthquake risk 	 <p>Data Pre-requisites:</p> <ul style="list-style-type: none"> • Requires less asset data than indemnity insurance and, subject to insurer appetite, may be more readily available, pending data improvements • Requires catastrophe modelling to assess and determine parametric pay-out triggers (this can be done by a third-party specialist) 	 <p>Potentially update the CAT. modelling</p>
 <p>Operational readiness:</p> <ul style="list-style-type: none"> • XX Agency has been allocated the mandate for managing and administering DRF for this asset type • Liaison has commenced with key road related line ministries • Training and education on road DRF instruments will be required 	 <p>Operational Pre-requisites: Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Manage and administer the insurer relationships and the insurance renewal cycle • Manage claims disbursement functions • Deliver training/education to stakeholders 	 <p>Training and education for relevant line ministries will be required</p>
 <p>Insurance Market readiness: Insurer engagement has not occurred, but we are aware insurers may require a high self-retention layer before their layer kicks in</p>	 <p>Insurance Market Pre-requisites: Requires an insurance market with capacity to underwrite the risk exposure at an acceptable price</p>	 <p>Commence engagement with relevant and admitted insurer markets</p>

Resulting example DRF Program for Roads and Schools

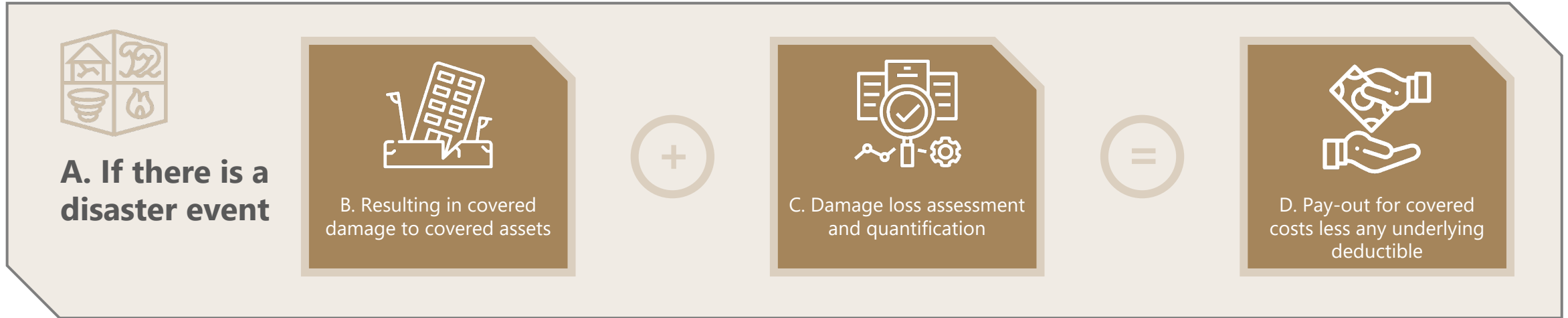


An example of a diverse and layered a National DRF Program



Parametric versus Indemnity Insurance

Indemnity Insurance



Parametric Insurance



Part 3: Annexe



Summary DRF Instrument Profiles - 01

DRF Instrument Type	Line Ministry budget re-allocation	Dedicated disaster response fund
Description	Individual line ministries divert operational budget to manage low value disaster related costs	A funded reserve set aside for central government's immediate emergency response liquidity needs post disaster
DRF Program location	Short and/or long-term/Risk Retention	Short-term/Risk Retention
Key characteristics	<ul style="list-style-type: none"> • Often a default instrument where no other funding mechanism is available • Can be a purposeful instrument to protect the DRF instrument layers above being eroded by high frequency/very low severity losses • If uncapped, can expose line ministries and central government to policy trade-offs, opportunity costs, and unanticipated cash calls to MoF 	<ul style="list-style-type: none"> • Often acts as a first line of central government response capital when government requires ready access to finance emergency response costs • Could be ringfenced from an existing General Contingency Fund
Institutional pre-requisites	<ul style="list-style-type: none"> • May not require legislation/regulation • Rules regarding limits to amount of budget which can be diverted • Rules regarding reporting and accounting practices attached to DRF spend allocation 	<ul style="list-style-type: none"> • Legislation/regulation • Confirmed value of fund • Rules regarding unspent funds each FY/top up of fund if depleted/scope of application/disbursement protocols and processes
Data pre-requisites	<ul style="list-style-type: none"> • May require LMs to report DRF spend to central government to support all-of-government analysis 	<ul style="list-style-type: none"> • Requires a basic level of data/information on: <ul style="list-style-type: none"> • Nature of perils covered (e.g., earthquake/flood) • Who is likely to call upon the fund • What events will lead to what level of cash-call on the fund
Operational pre-requisites	<ul style="list-style-type: none"> • Line ministries need to understand the DRF obligation • Line ministries should have internal disbursement protocols and processes 	<ul style="list-style-type: none"> • Requires capacity and capability to: <ul style="list-style-type: none"> • Monitor the fund • Liaise with stakeholders • Manage disbursement functions • Deliver training/education to stakeholders
Insurance market pre-requisites	<ul style="list-style-type: none"> • Does not require an insurer relationship (can be administered internally) 	<ul style="list-style-type: none"> • Does not require an insurer relationship (can be administered internally)

Summary DRF Instrument Profiles - 02

DRF Instrument Type	General Contingency Fund	Contingent Credit arrangement
Description	A reserve set aside by the MoF to attend to unanticipated events resulting in unbudgeted costs during the FY	A contractual arrangement with a financier/bilateral partner to provide funds (a loan and/or grant) contingent upon specified disaster event costs exceeding agreed thresholds.
DRF Program location	Short and/or long-term/Risk Retention	Short and/or long-term/Risk Transfer
Key characteristics	<ul style="list-style-type: none"> • Acts as a layer of post-disaster financial response when the underlying funds are depleted • May be subject to early depletion in severe disaster scenarios, and therefore may not be available for the reconstruction phase. • Depletion due to disasters will need to be managed carefully so that funds remain for other unanticipated events throughout the financial period. 	<ul style="list-style-type: none"> • Acts as a layer of post-disaster financial response when the underlying DRF instruments are depleted • More necessary when insurance protection is not in place to protect govt from severe events • More viable when the cost of capital associated with a layer of contingent credit is cheaper than what the insurance premiums would be for the same layer • Where a layer of contingent credit underlies an indemnity insurance product (e.g., public asset indemnity insurance), the contingent credit layer may support early funds to commence reconstruction, pending an indemnity insurance settlement.
Institutional pre-requisites	<ul style="list-style-type: none"> • Requires legislation/regulation • Confirmed value of fund • Rules regarding unspent funds each FY/top up of fund if depleted/scope of application/disbursement protocols and processes 	<ul style="list-style-type: none"> • Requires legislation/regulation • Confirmed contingencies/financial ceilings/financial security of credit providers • Contingent Credit contract(s) • Terms of lending/borrowing/disbursement arrangements
Data pre-requisites	<p>Ideally, requires a basic level of data/information on:</p> <ul style="list-style-type: none"> • Nature of perils covered (e.g., earthquake/flood) • Who is likely to call upon the fund • What events will lead to what level of cash-call on the fund 	<p>Requires a basic level of data/information on:</p> <ul style="list-style-type: none"> • Nature of perils covered (e.g., earthquake/flood) • What events will lead to triggering the credit arrangement • Which beneficiaries will likely require allocations from a credit arrangement pay-out
Operational pre-requisites	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Monitor the fund • Liaise with stakeholders • Manage disbursement functions • Deliver training/education to stakeholders 	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Negotiate and maintain the credit arrangement • Liaise with stakeholders • Manage disbursement functions • Deliver training/education to stakeholders
Insurance market pre-requisites	Does not require an insurer relationship (can be administered internally)	Does not require an insurer relationship (can be administered internally)

Summary DRF Instrument Profiles - 03

DRF Instrument Type	Dedicated Disaster Reconstruction Fund	Public Asset Indemnity Insurance
Description	A funded reserve set aside specifically for Central Government's medium to longer-term reconstruction liquidity needs post disaster event.	Insurance contracts that pay out the costs of reconstruction once evidence of the financial loss has been assessed and qualified.
DRF Program location	Long-term/Risk Retention	Long-term/Risk Transfer
Key characteristics	<ul style="list-style-type: none"> • Will act as a means to fund in-scope asset reconstruction (primarily public assets, but could extend to include housing for vulnerable communities) • May act as a means to Fund small to medium sized post-disaster reconstruction costs. • Insulates government from committing to significant and sudden budget reallocations (which comes with the opportunity cost attached to diverting funds from development agendas) 	<ul style="list-style-type: none"> • Can provide predictable and fit-for-purpose funds over the longer-term to support asset reconstruction • As an interim, cost-efficient measure, insurance may be targeted towards critical assets only • Claims require loss-assessment and pay-outs are relative to the cost to repair/replace assets (subject to the asset values declared) • The claims process can be lengthy
Institutional pre-requisites	<ul style="list-style-type: none"> • Requires legislation/regulation • Confirmed value of fund • Rules regarding unspent funds each FY/top up of fund if depleted/scope of application/disbursement protocols and processes 	<ul style="list-style-type: none"> • Requires Legislation/regulation • Insurance market regulation (admitted/non-admitted insurers) • Scope of insurance (participation/perils/assets) • Insurance policy terms and conditions • Disbursement protocols and processes • Procurement protocols and processes

Summary DRF Instrument Profiles - 03

DRF Instrument Type	Dedicated Disaster Reconstruction Fund	Public Asset Indemnity Insurance
Data pre-requisites	<p>Requires a mid-level of data/information on:</p> <ul style="list-style-type: none"> • Nature of perils covered (e.g., earthquake/flood) • Who is likely to call upon the fund • What events will lead to what level of cash-call on the fund • Likely timing of disbursements post disaster 	<p>Requires a relatively high level of data/information on:</p> <ul style="list-style-type: none"> • Asset locations • Asset replacement values • Asset construction, occupation, protection, and exposure data • Past loss experience
Operational pre-requisites	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Monitor the fund • Liaise with stakeholders • Manage disbursement functions • Deliver training/education to stakeholders 	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> • Manage and administer the insurer relationships and the annual insurance renewal cycle • Manage claims disbursement functions • Deliver training/education to stakeholders
Insurance market/self-insurance pre-requisites	<p>Does not require an insurer relationship (can be administered internally)</p>	<ul style="list-style-type: none"> • Requires an insurance market with capacity to underwrite the risk exposure at an acceptable price • There may be a role for a state insurer to partner with commercial insurance markets in underwriting this risk exposure

Summary DRF Instrument Profiles - 04

DRF Instrument Type	Parametric Insurance	Catastrophe Bonds
Description	Insurance contracts that pay out a pre-agreed amount when a prescribed event occurs, irrespective of the financial loss incurred	Investor linked contracts that pay out a pre-agreed amount when a prescribed event occurs, irrespective of the financial loss incurred
DRF Program location	Short and/or long-term/Risk Transfer	Short and/or long-term/Risk Transfer
Key characteristics	<ul style="list-style-type: none"> - Provides swift payment to attend to emergency response and/or reconstruction costs. - Will only pay-out if the prescribed event occurs (i.e., there is basis risk if the actual event does not meet the policy description) - The swift pay-out feature may support assistance for vulnerable populations 	<ul style="list-style-type: none"> - Provides swift payment to attend to emergency response and/or reconstruction costs. - Will only pay-out if the prescribed event occurs (i.e., there is basis risk if the actual event does not meet the policy description) - The swift pay-out feature may support assistance for vulnerable populations
Institutional pre-requisites	<ul style="list-style-type: none"> - Requires Legislation/regulation - Insurance market regulation (admitted/non-admitted insurers) - Scope of insurance (participation/perils/assets) - Insurance policy terms and conditions - Disbursement protocols and processes - Procurement protocols and processes 	<ul style="list-style-type: none"> - Legislation/regulation - The establishment/agreement with a Special Purpose Vehicle to administer the instrument - Investor acceptance profile and investment strategy - Scope of the instrument (participation/peril/assets) - Disbursement protocols and processes - Procurement protocols and processes
Data pre-requisites	<ul style="list-style-type: none"> - May require less <u>asset</u> data than indemnity insurance and, subject to insurer appetite, may be more readily available, pending data improvements - Requires catastrophe modelling to assess and determine parametric pay-out triggers (this can be done by a third-party specialist) 	<ul style="list-style-type: none"> - Requires less asset data than indemnity insurance and, subject to insurer appetite, may be more readily available, pending data improvements - Requires catastrophe modelling to assess and determine parametric pay-out triggers (this can be done by a third-party specialist)
Operational pre-requisites	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> - Manage and administer the insurer relationships and the insurance renewal cycle - Manage claims disbursement functions - Deliver training/education to stakeholders 	<p>Requires capacity and capability to:</p> <ul style="list-style-type: none"> - Manage and administer the SPV and investor relationships - Manage claims disbursement functions - Deliver training/education to stakeholders
Insurance market/self-insurance pre-requisites	<ul style="list-style-type: none"> - Requires an insurance market with capacity to underwrite the risk exposure at an acceptable price 	<ul style="list-style-type: none"> - Requires a standalone Special Purpose Vehicle to administer the instrument