

Disaster Risk Finance: A Primer

Core Principles and Operational Framework



Disaster Risk Financing
& Insurance Program



The Development Impact of Disaster and Climate Shocks

More than 1 billion people have lifted themselves out of poverty in the past 15 years, but climate and disaster risks threaten these achievements. Global asset losses from disasters are now reaching an average of more than US\$300 billion a year. According to a 2017 World Bank report, the impacts of disasters on well-being are equivalent to a US\$520 billion drop in consumption—60 percent more than the asset losses usually reported—and force some 26 million people into poverty every year.¹ Moreover, the negative impacts of disaster and climate shocks are compounded by the increasingly complex threats that countries face, ranging from migration caused by fragility and conflict situations to the risk of pandemics. It is estimated that 93 percent of people facing extreme poverty today live in countries that are politically fragile or environmentally vulnerable, and in many cases both. The United Nations' 2017 humanitarian appeal, intended to help almost 93 million people affected by conflicts and natural disasters, sought a record US\$22.2 billion.

1 Hallegatte et al. 2017



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the yearly average Global asset losses from disasters are now reaching



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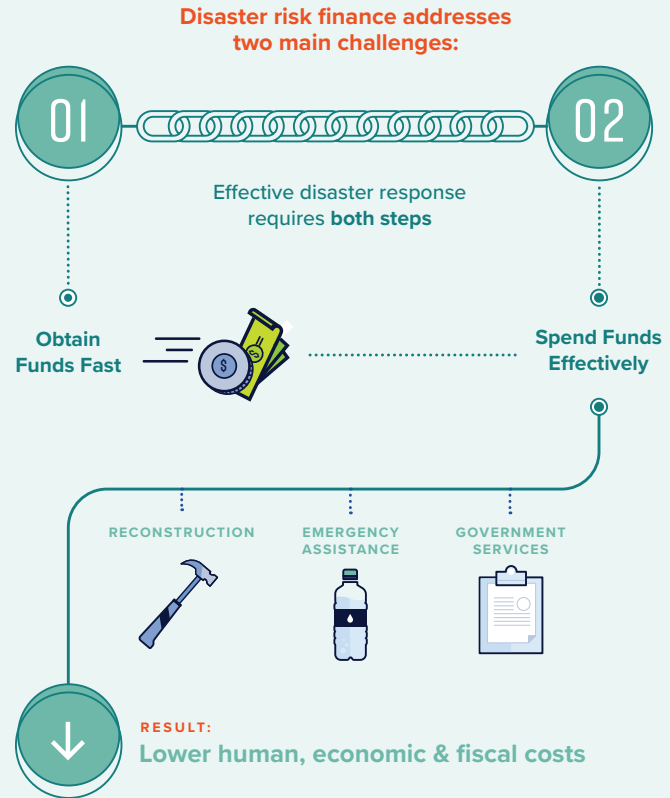
Disaster Risk Finance

A growing number of governments are moving toward a proactive (and more cost-effective) approach to financial planning, one that protects national budgets as well as the lives and livelihoods of their residents from the impacts of disasters. This approach complements other elements of a comprehensive disaster risk management strategy, ranging from investments in risk reduction to improved preparedness and resilient recovery and reconstruction.

Financial protection involves planning ahead to better manage the cost of disasters, ensure predictable and timely access to much-needed resources, and ultimately mitigate long-term fiscal impacts.

While there are many post-disaster needs that the government is not legally required to cover, social and political pressure can create implicit contingent liabilities even where no legal liability exists. Implicit contingent liabilities are often very difficult for the government to estimate ahead of time and can pose major fiscal risk.

Even in years without exceptional catastrophes, response costs can be significant from smaller but frequent disasters.



Disaster Risk Finance Solutions: Definition and Beneficiaries

Disaster risk finance and insurance instruments aim to increase the resilience of vulnerable countries against the financial impact of disasters and to secure access to post-disaster financing before an event strikes, thus ensuring rapid, cost-effective resources to finance recovery and reconstruction efforts.

Typically, governments seek financial protection for four different groups across society: national and local governments; homeowners and small and medium enterprises (SMEs); farmers; and the poorest segment of the population. Different tools are appropriate for each group:



Financial protection for rapid response and budget protection supports national and subnational governments in becoming proactive financial risk managers able to meet the cost of disasters.



Financial protection for homeowners and small businesses supports governments in developing markets for private property catastrophe risk insurance that protects beneficiaries against losses arising from property damage.



Financial protection for resilient livelihoods supports governments in channeling emergency support to households through social protection mechanisms, enabling faster and more transparent disaster response and helping to reduce humanitarian impacts.



Financial protection for agriculture supports governments in implementing sustainable, cost-effective public-private partnerships in agricultural insurance as part of broader agricultural risk management. Agricultural insurance benefits farmers, herders, and fishermen.

Core Principles of Disaster Risk Finance

Governments seeking to evaluate and improve their financial resilience should be guided by four core principles. These principles do not tell decision makers what to do, but they provide a framework for evaluating policy decisions and financial instruments.



TIMELINESS OF FUNDING

Speed matters but not all resources are needed at once.



DISBURSEMENT OF FUNDS

How money reaches beneficiaries is as important as where it comes from.



DISASTER RISK LAYERING

No single financial instrument can address all risk.



DATA AND ANALYTICS

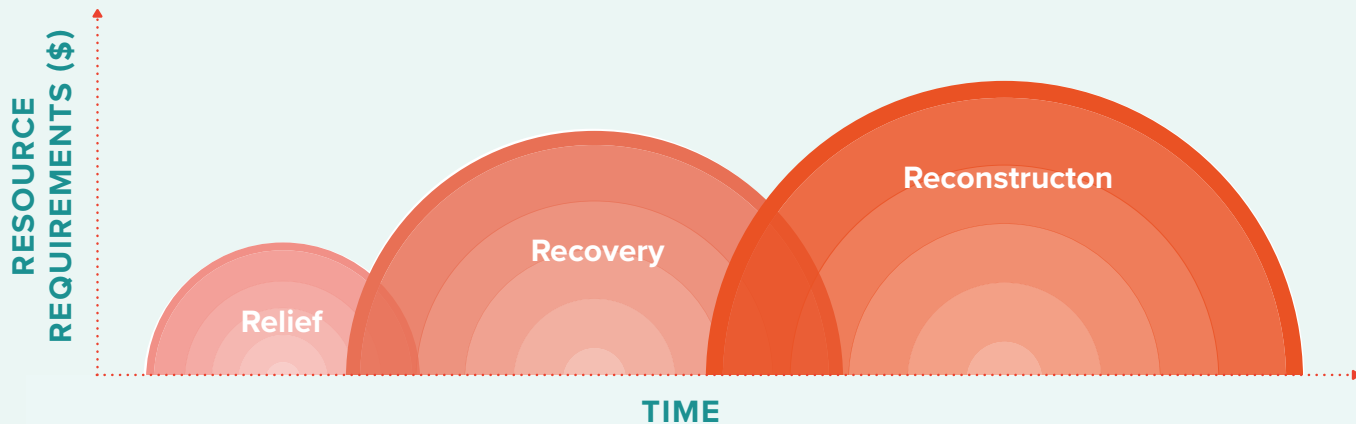
To make sound financial decisions, governments need the right information.

Core Principle 1

Timeliness of funding: Speed matters but not all resources are needed at once.

Understanding the timing of needs is essential. In the aftermath of a major disaster, the government will not require the money needed for the entire reconstruction program all at once. While immediate liquidity is crucial to support relief and early recovery operations, the government has more time

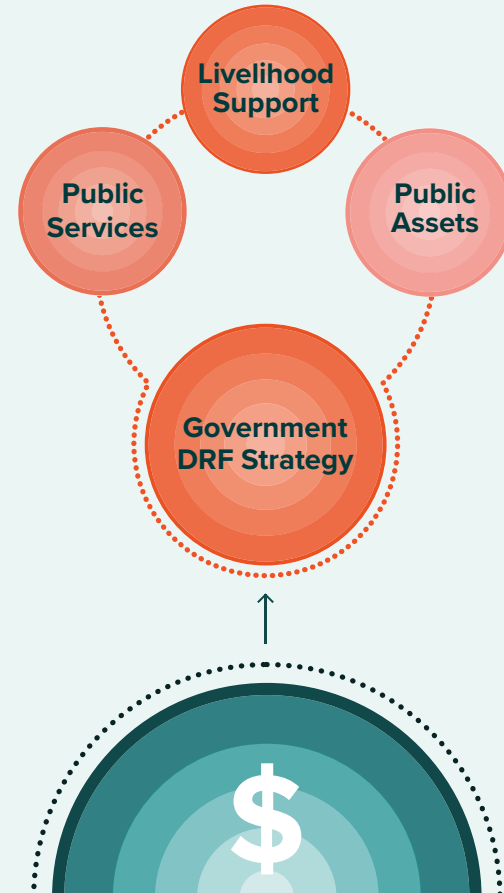
to mobilize the larger resources for the reconstruction program. This variation in the timing of needs has clear implications for the design of cost-effective financial management of disasters.



Core Principle 2

Disbursement of funds: How money reaches beneficiaries is as important as where it comes from.

Governments require dedicated mechanisms and expertise to effectively allocate, disburse, and monitor recovery and reconstruction funds. Strong collaboration between the ministry of finance and the public entity tasked with spending post-disaster funds—such as local governments or agencies that maintain public infrastructure—is crucial. In addition, the disbursement system must balance policy makers' concern for fast disbursement with the transparency and accountability required by the public and donors.

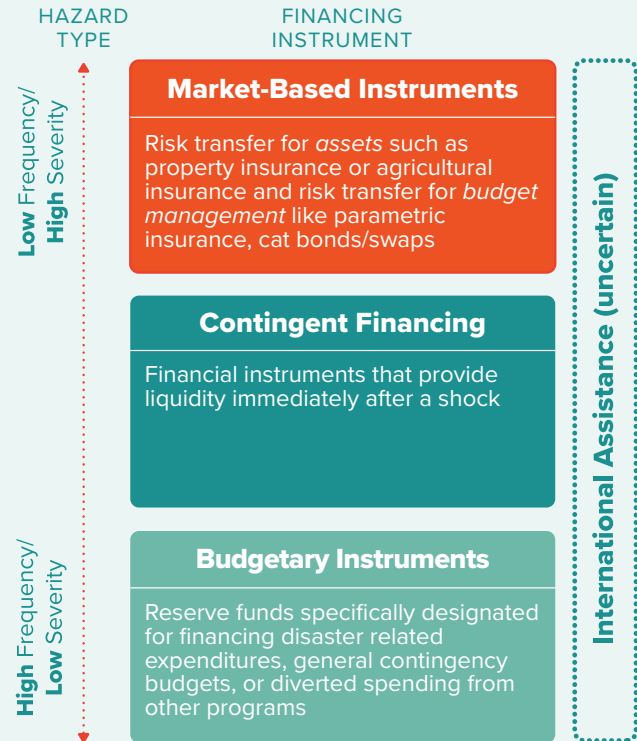


Core Principle 3

Disaster risk layering: No single financial instrument can address all risk.

International experience has shown that governments ideally combine different instruments to protect against events of different frequency and severity. This approach, known as risk layering, is part of a comprehensive financial protection strategy that mobilizes different instruments, either before or after a disaster strikes, to address the evolving need for funds.

Risk layering ensures that cheaper sources of money are used first and that the most expensive instruments are used only in exceptional circumstances. For example, insurance can provide cover against extreme events, but is not appropriate to protect against low-intensity events that recur regularly. To retain this lowest layer of risk, the government could consider setting up a dedicated contingency fund.

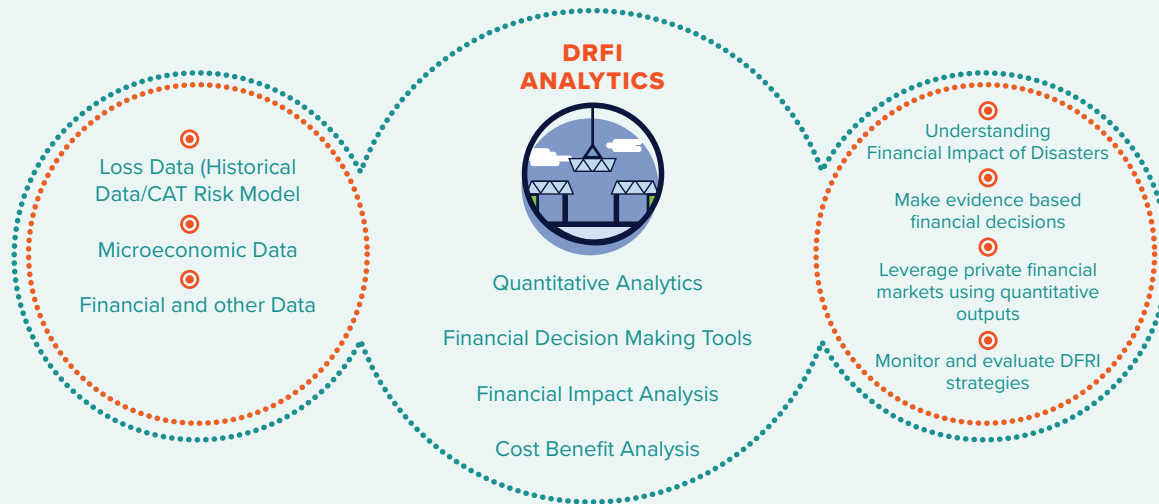


Core Principle 4

Data and analytics: To make sound financial decisions, governments need the right information.

Financial analysis of risk data and quantitative evidence empowers governments to take risk-informed decisions regarding their financial protection against disasters. Sound decision making requires actuarial analysis and tools to help governments understand and evaluate alternative financial

instruments and strategies; user-friendly interfaces to bridge the gap between policy makers and underlying technical models; and quantitative analysis to leverage financial markets and private sector solutions.



Operational Framework for Disaster Risk Finance

The operational framework presented here helps decision makers design and implement financial protection mechanisms. It introduces a consistent way of approaching disaster risk financing so that governments can better identify and implement their priorities, and so that international development partners and the private sector can better support them in doing so.

The framework is not a blueprint for action, and does not provide detailed guidance on how to carry out each step. The specific challenges faced by countries vary too much to make this possible. For example, small island developing states subject to financial shocks—where the loss can exceed annual GDP—face vastly different challenges than large middle-income countries trying to safeguard low-income populations against disasters.

This framework may be helpful to governments in two different situations:



those planning to implement a specific product or financial instrument (such as risk transfer to international markets) and needing to situate the instrument in the larger context of financial protection and disaster risk management; and



those seeking to achieve a particular development goal, such as protecting smallholder farmers against drought or ensuring access to immediate post-disaster liquidity for central or subnational governments.

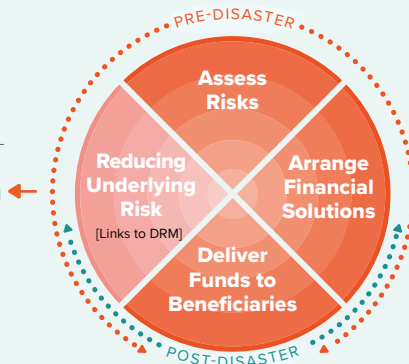
Operational Framework: Technical Steps

In implementing the framework, four core technical steps complement and inform the policy decisions: assessing risks [see ‘Core Principle 4: Data and Analytics’ above], arranging financial solutions [see ‘Core Principle 1: Timeliness of Funding’ and ‘Core Principle 3: Risk Layering’ above], delivering funds to beneficiaries [see ‘Core Principle 2: Disbursement of Funds’ above], and reducing underlying risks.

Risk assessments for financial protection quantify potential disaster impacts based on historical and simulated data. This often requires investments in the necessary underlying hazard, exposure, and vulnerability data. This also includes building an effective interface between the policy maker and underlying technical models.

Sustainable financial protection requires reducing underlying drivers of this risk.

It complements risk reduction by managing residual risk which is not feasible or not cost effective to mitigate. It also creates incentives to invest in risk reduction and prevention by putting a price on risk and clarifying risk ownership.



Effective post disaster response and recover relies on access to sufficient and timely resources following a disaster.

This includes:

- [i] Arranging the required financial resources for the government to meet its contingent liabilities
- [ii] Developing catastrophe risk and agricultural insurance markets, building on Public-Private partnerships
- [iii] Develop rules and arrange financing instruments for scalable social protection

Resources should reach beneficiaries in a timely, transparent, and accountable fashion. This requires effective administrative and legal systems for the appropriation and execution of funds for the government budget, insurance distribution and settlement. [Often through private channels], as well as social protection programs.

Operational Framework: Policy Process

The disaster risk finance operational framework entails a decision process for a government interested in financial protection. The process leads policy makers through a set of fundamental questions that determine the shape and direction of the country's disaster risk finance engagement, embedded within an overall risk management strategy.

The first step in implementing disaster risk finance solutions is for policy makers to clarify overall development goals and identify the intended beneficiary of their risk financing policy [see *'Beneficiary Groups'* above]. The second step is to use historical information and risk assessments to identify the financial impact on these groups and the underlying causes driving these effects [see *'Core Principle 4: Data and Analytics'* above]. The last step is to determine what mechanisms are appropriate for financing this risk [see *'Core Principle 1: Timeliness of Funding'* and *'Core Principle: 3 Risk Layering'* above] and how funds will reach the intended beneficiaries [see *'Core Principle 2: Disbursement of Funds'* above].



STEP 1

The first step in implementing disaster risk finance solutions is for policy makers to clarify overall development goals and identify the intended beneficiary of their risk financing policy



STEP 2

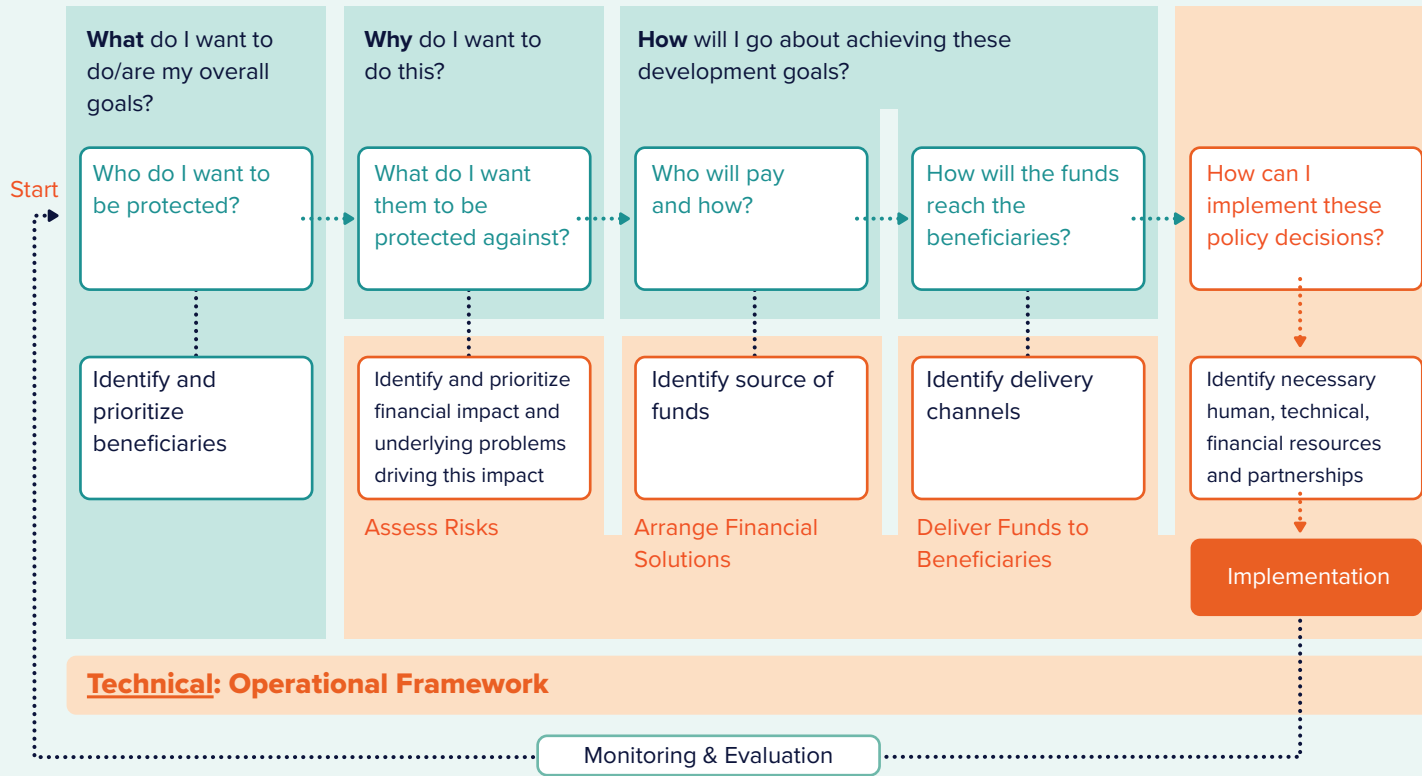
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STEP 3

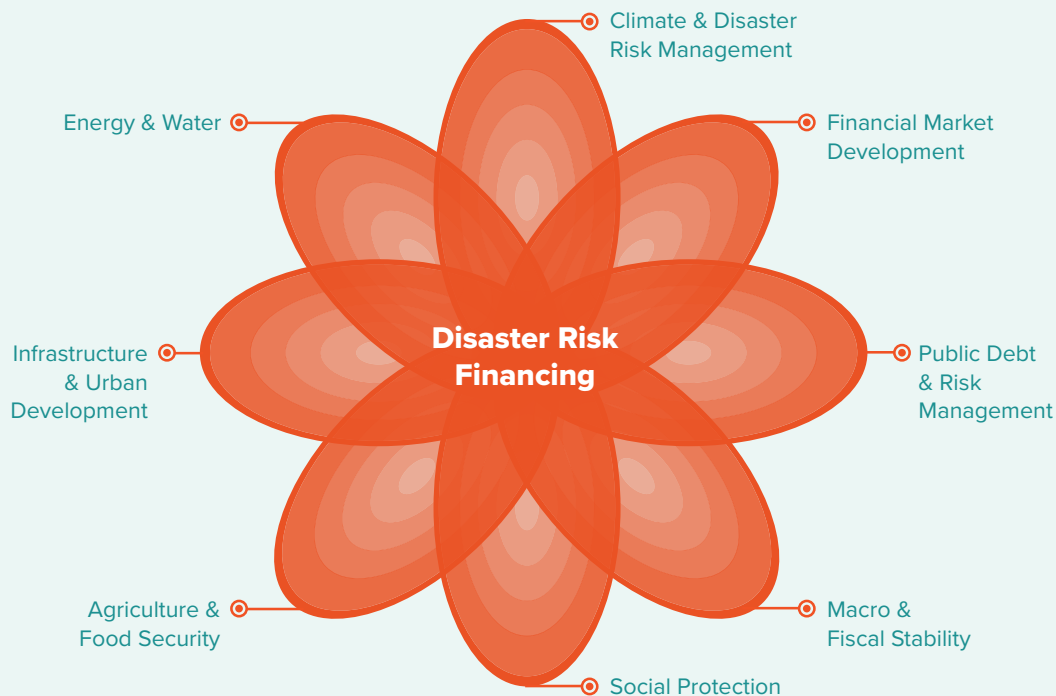
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Policy: Financial Protection Strategy & Action Plan



Links to other Policy Areas

Disaster risk finance supplements and connects many policy areas to help countries become more effective risk managers. By working with and improving existing processes as much as possible, governments can manage disasters more efficiently and avoid creating additional work for themselves.



The World Bank’s Disaster Risk Financing and Insurance Program (DRFIP) helps developing countries manage the potentially high cost from disasters and climate shocks. DRFIP provides analytical and advisory services, convening services, and financial services to over 60 countries worldwide to support the development and implementation of comprehensive financial protection strategies against climate and disaster risks.

“This publication is a summary of in depth information provided in *Financial Protection Against Natural Disasters: An Operational Framework for Disaster Risk Financing and Insurance* as well as *Sovereign Climate and Disaster Risk Pooling: World Bank Technical Contribution to the G20* which can be accessed at www.worldbank.org/drfi. This summary version has been refined through an introductory course on the fundamentals of disaster risk finance, which has been delivered to over 1000 government officials and development practitioners since 2016”

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For more information about DRFIP:

www.worldbank.org/drfi

For information and publications on disaster risk finance:

www.financialprotectionforum.org

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