



TECHNICAL NOTES

Disaster Risk Reduction Expenditure Accounts of the Philippines

I. Conceptual Framework

The Philippines is identified as one of the most vulnerable to different types of disasters like typhoons, earthquakes, and flood, among others. According to the World Risk Index, the Philippines ranks first among 193 countries with the highest disaster risk level in 2022.

In 2016, the Disaster-related Statistics Framework (DRSF) was conducted and pilot-tested in the Philippines, along with other three countries – Bangladesh, Fiji, and Indonesia. The summary tables likewise highlighted the Disaster Risk Reduction Expenditure and Transfers (DRRE). The aim of compiling the DRRE tables is to start developing a satellite account of the national accounts that is linked with the System of National Accounts (SNA) and the System of Environmental-Economic Accounting (SEEA).

The DRSF is a guideline for statistics, which includes descriptions for a basic range of disaster-related statistics and methodological guidance and tools for implementation. It is designed for use by national agencies to improve quality and harmonization of statistics in support of monitoring and achievement of the Sendai Framework for Disaster Risk Reduction 2015-2030 and the Sustainable Development Goals.

The DRR activity accounting tables have been developed in alignment with the concepts, standards, and formats of the SNA since the information considered in the DRRE tables could be obtained from the same data sources used in the national accounts.

As described in the DRSF, DRR-characteristics activities are classified into four (4) thematic areas, namely, disaster prevention, disaster mitigation, disaster management, and disaster recovery.

Thematic Areas of DRR-characteristics Activities:

1: Disaster Risk Prevention

This thematic area includes activities and measures to avoid existing and new disaster risks. This has two sub-thematic areas:

- 1.1. Risk prevention in advance of hazardous event
 - Risk prevention in advance of a hazardous event is a concept and intention to avoid potential adverse impacts of hazardous events.
- 1.2. Risk prevention in advance of hazardous event
 - Risk prevention in or after hazardous events relates to prevention measures taken to prevent secondary hazards or their consequences.

2: Disaster Risk Mitigation

This thematic area includes activities and measures to reduce or lessen existing disaster risk or to limit the adverse impacts of a hazardous event. Mitigation differs from prevention in that it is reactive to an identified and currently existing risk or impending threat.

- 2.1. Structural measures, constructions
 - Structural measures and constructions include any physical construction to reduce or avoid possible impacts of hazards, or application of engineering techniques to achieve hazard resistance and resilience in structures or systems.
- 2.2. Non-structural measures
 - Non-structural measures are any measures not involving physical construction that uses knowledge, practice, or agreement to reduce risks and impacts through their integration in sustainable development plans and programmes, through policies and laws, public awareness

raising, training and education typically to reduce vulnerability and exposure.

2.3. Land-use planning

- Land- use planning can help to mitigate disasters and reduce risks by discouraging settlements and construction of key installations in hazard-prone areas, including consideration of service routes for transport, power, water, sewage, and other critical facilities.

2.4. Early warning systems management

- Early warning systems management incorporates inter-related sets of hazard warnings, risk assessments, communication and preparedness activities that enable individuals, communities, businesses, and others to take timely action to reduce their risks.

3: Disaster Risk Management

This thematic area is the organization and management of resources and responsibilities for creating and implementing preparedness and addressing all aspects of emergencies and others plans to respond to, and to decrease the impact of disasters.

3.1. Preparedness

- Preparedness is the knowledge and capacities developed by governments, professional response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent, or current disasters.

3.2. Emergency management

- Emergency management includes national-level plans that are specific to each level of administrative responsibility and adapted to different social and geographical circumstances.

3.3. Emergency supply of commodities

- Emergency supply of commodities includes resources and responsibilities for providing emergency support of commodities during a disaster.

3.4. Other disaster responses

- Other disaster responses include provision of emergency services and public assistance by private and community sectors, as well as volunteer participation.

4: Disaster Recovery

This thematic area involves the restoring or improving of livelihoods and health, as well as economic, physical, social, cultural, and environmental assets, systems, and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk.

1. Relocation

- Relocation is the movement of people, for different reasons or circumstances because of risk or disaster, permanently from their places of residence to new sites.

2. Rehabilitation

- Rehabilitation involves the rapid and basic restoration of services and facilities for the return to normal functioning of a community or a society affected by a disaster.

3. Reconstruction

- Reconstruction involves the medium and longer-term repair and sustainable restoration of critical infrastructures, services, housing, facilities, and livelihoods required for full functioning of communities and livelihoods of residents in a region affected by a disaster.

II. Data Sources

The main sources of data for the compilation of the accounts, specifically, on public sector are the following:

Data	Data Sources
Annual Financial Report	Commission on Audit
National Expenditure Program	Department of Budget and Management
Consolidated Report on Official Development Assistance (ODA) Programs and Projects, and the ODA Portfolio	National Economic and Development Authority
National Accounts of the Philippines (NAP)	Philippine Statistics Authority
Philippine Peso per US Dollar Rate	Bangko Sentral ng Pilipinas

III. Compilation Methodology

The following steps were taken to estimate the disaster risk reduction expenditure for public sector.

1. Processing of National Expenditure Program (NEP)

To get the total government expenditure on disaster risk reduction activities, the 2015 to 2022 NEP data must be processed in a way that all budgeted DRR activities by different national agencies are culled out. Thereafter, identification of the thematic areas of each activity was done.

2. Estimation of Actual Expenditure on Disaster Risk Reduction (DRR)

In estimating the actual expenditure on DRR, the following procedures were done:

a. To estimate the actual expenditure on DRR, the total national

expenditure sourced from the 2015 to 2022 AFR of COA was used. Actual expenditure of National Government Agencies (NGA) on disaster related activities was estimated using the following equation:

$$NGA\ DRR\ Expenditure = \sum \frac{Budgeted\ DRR\ activities\ per\ Agency}{NEP\ Total\ less\ NDRRMF\ and\ QRF} * Total\ National\ Expenditure \quad (Eq. 1)$$

In addition, to estimate the total DRR expenditure, the following equation was used:

$$DRR\ Expenditure = NGA\ DRR\ Expenditure + NDRRMF + LGUs + ODA \quad (Eq. 2)$$

The National Disaster Risk Reduction Management Fund (NDRRMF) and Quick Response Fund (QRF) are excluded in the Total NEP as the actual figures are obtained from the Audit Report of COA on the Disaster Risk Reduction Management (DRRM) Fund.

- b. To link it to the National Accounts of the Philippines, the share of the Total Actual Expenditure on DRR to GFCE was computed using the following equation:

$$Share\ of\ DRR\ Expenditure\ to\ GFCE = \frac{DRR\ Expenditure}{Total\ National\ Expenditure} * GFCE \quad (Eq. 3)$$

- c. Finally, the actual final expenditure on DRR was estimated using the following equation:

$$Total\ DRR\ Expenditure = \frac{DRR\ Expenditure\ per\ Agency}{DRR\ Expenditure} * Share\ of\ DRR\ Expenditure\ to\ GFCE \quad (Eq. 4)$$

IV. Definition of Terms

1. Annual Financial Report – provides essential information on the financial position, financial performance, changes in net assets/equity, cash flows, and comparison of budget and actual amounts of NGAs. It also provides information on appropriations, allotments, obligations, disbursements, unreleased appropriations, and unobligated balances, as well as the summary of the results of audit, specifically audit opinions on the fairness of presentation of the FSs and significant audit recommendations on economy, efficiency, and effectiveness of operation of NGAs.¹
2. Disasters – a serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Disasters are often described as a result of the combination of exposure to a hazard; conditions of vulnerability that are present; and insufficient capacity or measures to reduce or cope with the potential negative consequences. Disaster impacts may include loss of life, injury, disease and other negative effects on human, physical, mental and social well-being, together with damage to property, destruction of assets, loss of services, social and economic disruption and environmental degradation.²
3. Disaster Management – the organization and management of resources and responsibilities for creating and implementing preparedness and addressing all aspects of emergencies and others plans to respond to, and to decrease the impact of, disasters and to build back better.²
4. Disaster Response – actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected; includes operational response, which are the coordinated actions of emergency responders, utilizing detailed data on the location of disaster, population, critical infrastructure, and other relevant priority concerns.²
5. Disaster Risk – “the potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a

community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity.” (UN, 2015) *Annotation: The definition of disaster risk reflects the concept of hazardous events and disasters as the outcome of continuously present conditions of risk. Disaster risk comprises different types of potential losses which are often difficult to quantify. Nevertheless, with knowledge of the prevailing hazards and the patterns of population and socioeconomic development, disaster risks can be assessed and mapped, in broad terms at least.*²

6. Disaster Risk Reduction – a scope of work “aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contributes to strengthening resilience. DRR encompasses all aspects of work including the management of residual risk, i.e., managing risks that cannot be prevented nor reduced, and are known to give rise to, or already, materialize into a disaster event.” (UNISDR, 2017) ²
7. Disaster Risk Mitigation – activities and measures to reduce or lessen existing disaster risk or to limit the adverse impacts of a hazardous event. Mitigation differs from prevention in that it is reactive to an identified and currently existing risk or impending threat. Thus, the activities mitigate for specific threats, instead of general risk prevention.²
8. Disaster Risk Prevention – activities with an intention to avoid potential adverse impacts of hazardous events. While certain disaster risks cannot be eliminated, prevention aims at reducing vulnerability and exposure in such contexts where, as a result, the risk of disaster is removed.²
9. Early Warning Systems Management – an interrelated set of hazard warning, risk assessment, communication and preparedness activities that enable individuals, communities, businesses, and others to take timely action to reduce their risks.²
10. Emergency Management – the organization and management of resources and responsibilities, which predominantly focused on immediate and short-term needs, for addressing all aspects of emergencies and effectively responding to a hazardous event or a

disaster. The set of specialized agencies that have specific responsibilities and objectives in serving and protecting people and property in emergency situations including agencies such as civil protection authorities, police, fire, ambulance, paramedic and emergency medicine services, Red Cross and Red Crescent societies, and specialized emergency units of electricity, transportation, communications, and other related services organizations.²

11. Expenditure Program - the expenditure program is the portion of the national budget that refers to the current operating expenditures and capital outlays necessary for the operation of the programs, projects and activities of the various government departments and agencies.³
12. Official Development Assistance – ODA is defined as flows to countries and territories on and to multilateral development institutions which are: a) provided by official agencies, including state and local governments, or by their executing agencies; and ii. each transaction of which: a) is administered with the promotion of the economic development and welfare of developing countries as its main objective; and b) is concessional in character and conveys a grant element of at least 25% (calculated at a discount rate of 10 percent). (see OECD)²
13. Preparedness – the knowledge and capacities developed by governments, professional response and recovery organizations, communities, and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current disasters.²
14. Reconstruction – the medium and longer-term repair and sustainable restoration of critical infrastructures, services, housing, facilities, and livelihoods required for full functioning of a community, or a society affected by a disaster. (UN, 2015)²

¹ Annual Financial Report, Commission on Audit

² Disaster-related Statistics Framework Glossary

³ Basic Concepts in Budgeting, Department of Budget and Management

V. Dissemination of Results and Revision

The Disaster Risk Reduction Expenditure Accounts of the Philippines is an environmental account compiled by the PSA.

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VI. Citation

Philippine Statistics Authority. (30 November 2023). *Technical Notes on Disaster Risk Reduction Expenditure Accounts*
<https://psa.gov.ph/content/disaster-mitigation-posted-highest-drr-expenditure-php-10797-billion-2022>

VII. Contact Information

Ms. Virginia M. Bathan
Chief Statistical Specialist
Environment and Natural Resources Accounts Division
(632) 8376-2041
enrad.staff@psa.gov.ph

For data request, you may contact:

Knowledge Management and Communications Division
(632) 8462-6600 locals 839, 833, and 834
info@psa.gov.ph