UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

ESCAP APDIM
Asian and Pacific Centre for the Development of Disaster Information Management

Rapid Assessment for Resilient Recovery Frameworks

Nokeo Ratanavong
ESCAP

Regional Workshop on Rapid Assessment for Resilient Recovery
Gandhinagar, 29 January -1 February 2019

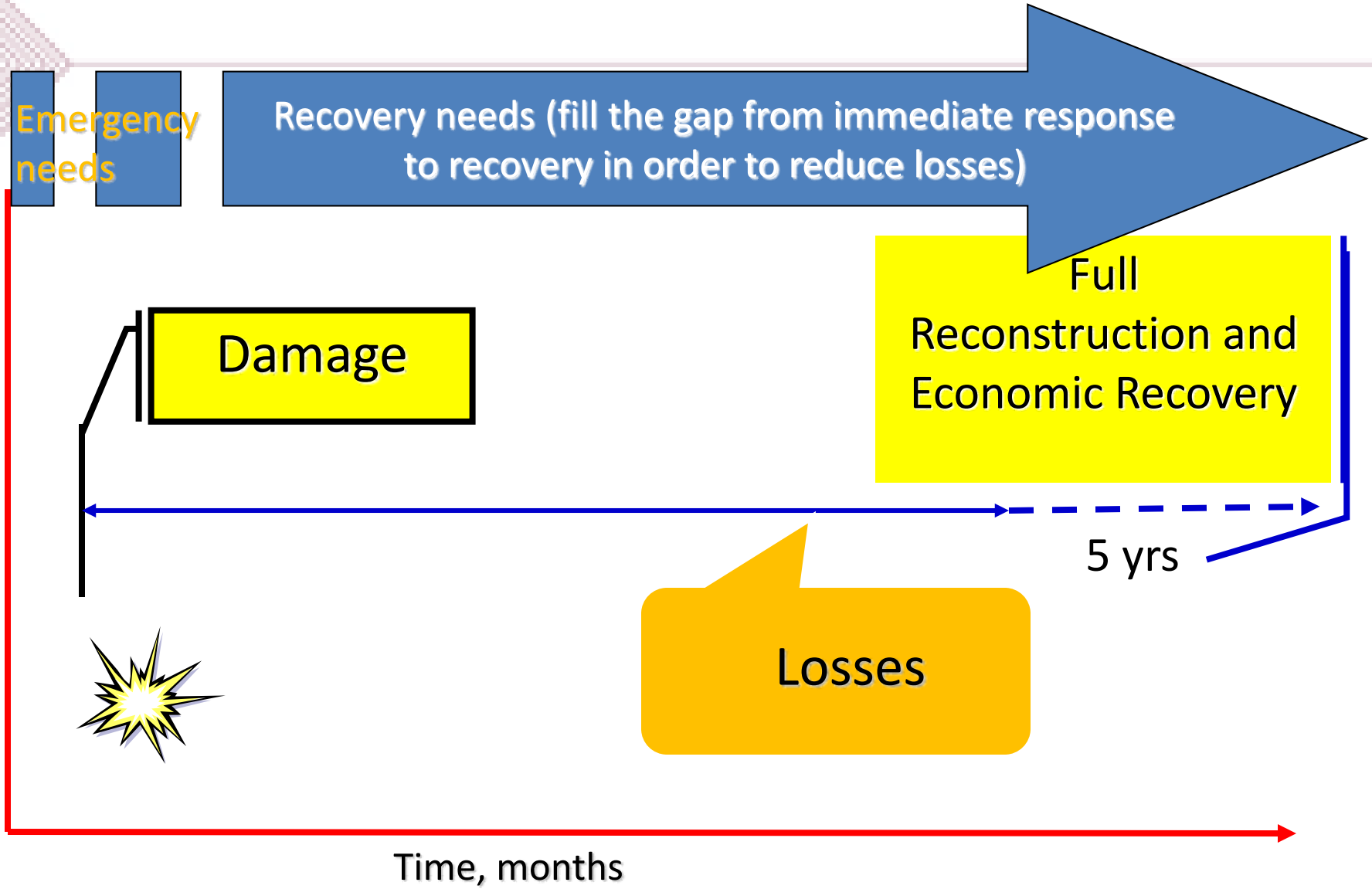
Recovery assessment methodologies and frameworks

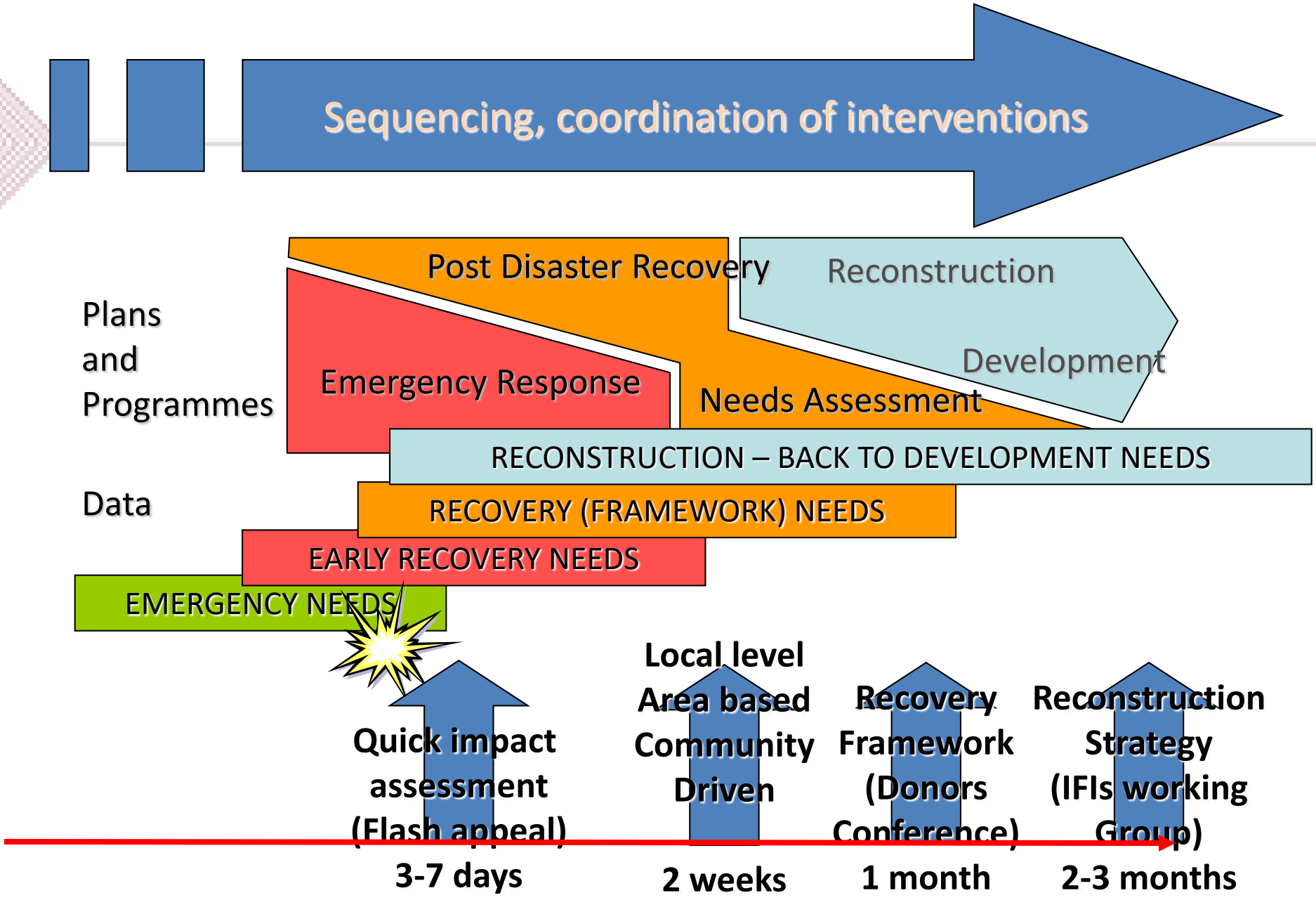
- UNDP/BCPR Post-disaster Recovery Guidelines
- Integrated Livelihood Assessment Guidelines, FAO and ILO
- Recovery Assessment Mechanisms and Methods, IFRC
- Needs Analysis Framework, OCHA
- Multi-sectoral Rapid Assessment methodology, UNICEF
- Community Damage Assessment and Demand Analysis Methodology, AIDMI
- Damage Assessment and Needs Analysis Methodology, ADPC
- Methodology for Estimating the Socio-economic and Environmental Impact of Disasters, ECLAC
- Rapid Assessment for Resilient Recovery using innovative tools, techniques and space applications, ESCAP and SDMC

Sector specific needs assessment methodologies

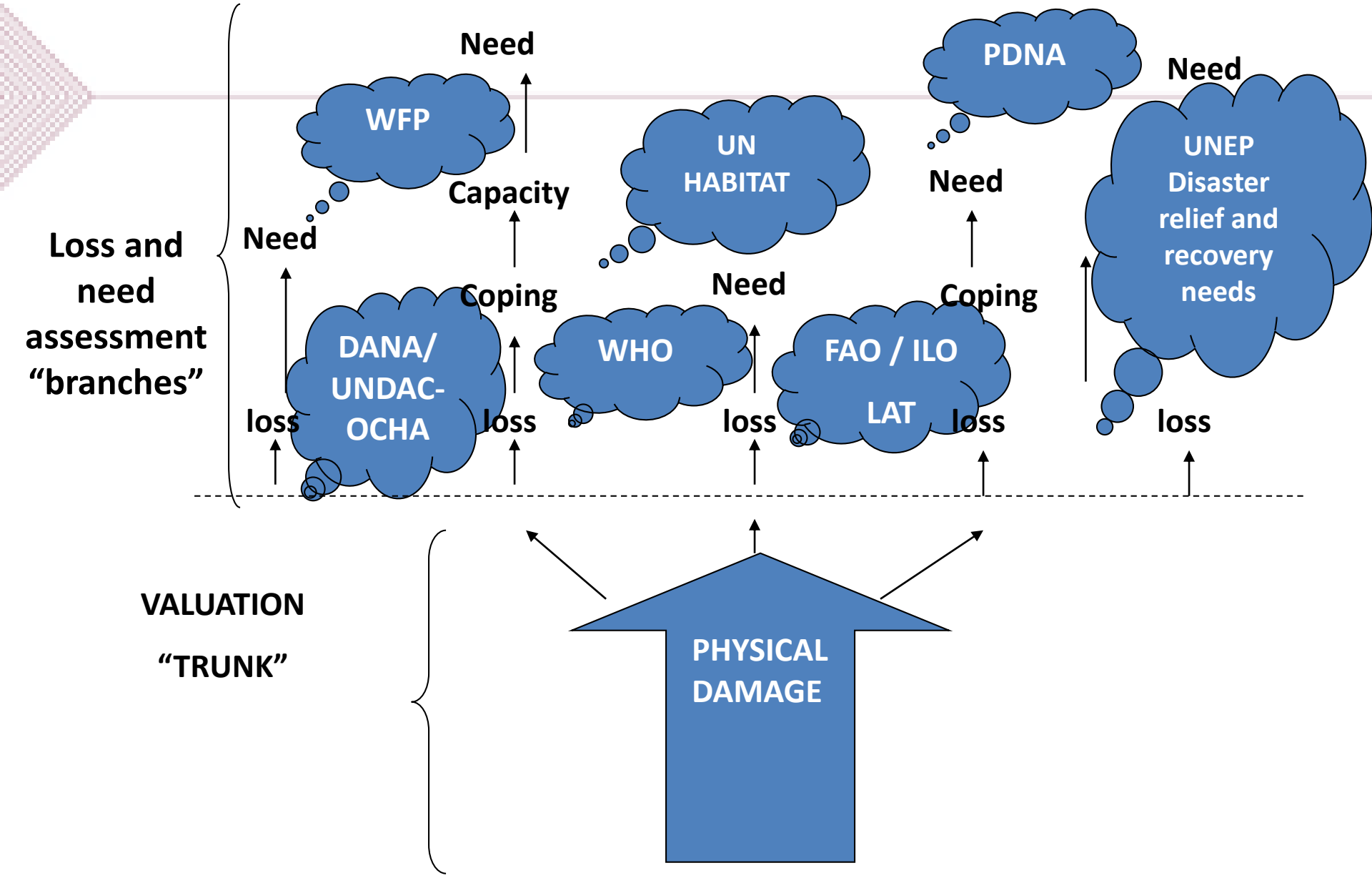
- Emergency Food Security Assessment, WFP
- Rapid Health Assessment, Global Health Cluster
- Guidelines for HIV/AIDS Interventions in Emergency Settings, IASC
- Minimum Standards for Education in Emergencies, Chronic Crises or Early Reconstruction, INEE
- Post-disaster environmental needs assessment practical guide
- Strengthening the Social Analysis Component in Rapid Impact and Vulnerability Assessment, IFRC/ProVention Consortium

Damage and losses - information needs sequence

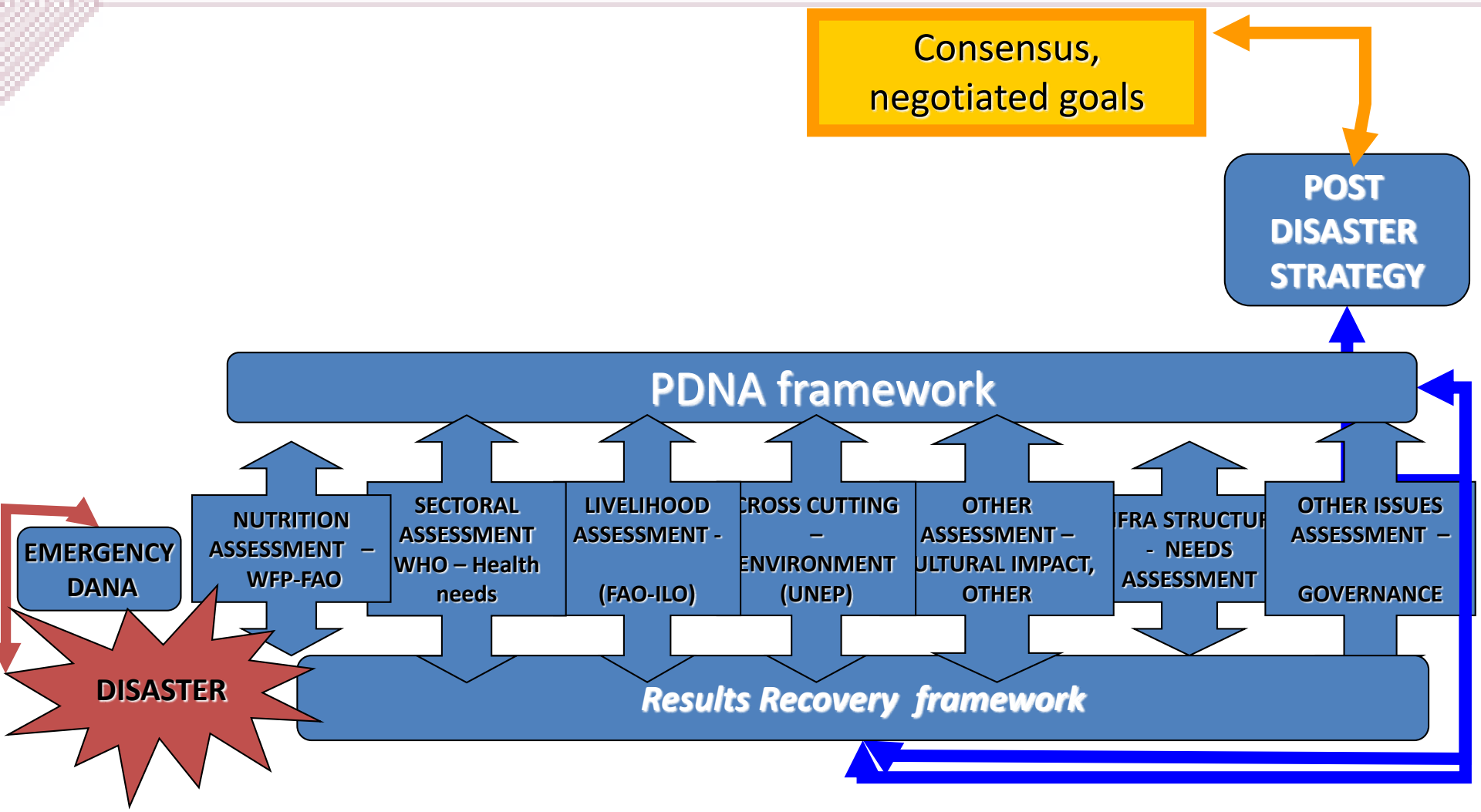



Sequencing, coordination of interventions
Plans and Programmes
Post Disaster Recovery
Reconstruction
Development
Emergency Response
Needs Assessment
RECONSTRUCTION – BACK TO DEVELOPMENT NEEDS
Data
RECOVERY (FRAMEWORK) NEEDS
EARLY RECOVERY NEEDS
EMERGENCY NEEDS
Quick impact assessment (Flash appeal)
3-7 days
Local level Area based Community Driven
2 weeks
Recovery Framework (Donors Conference)
1 month
Reconstruction Strategy (IFIs working Group)
2-3 months

Integrated PDNA framework(from DALA to Recovery)



Post disaster process requires an assessment of damage, losses and needs to define a recovery strategy in a results oriented framework



Needs Assessment Process for Humanitarian Disasters/Early Recovery cluster

(UN HABITAT)

Pre-disaster: development phase IN COORDINATION WITH NATIONAL/LOCAL AUTHORITIES

1. Development reports– Ongoing monitoring of development in countries which have/may confront disasters
Illustrative authorities, systems and tools: UN Millennium Development Indicators; UNDP Human Development Index; ECHO Vulnerability and Crisis Index
TIMEFRAME: ONGOING ACTIVITY

2. Research – Identification of guiding authorities for post-disaster needs assessment (all phases)
Illustrative authorities: Chambers and Conway "Sustainable Livelihoods: Practical Concepts for the 21st Century" ; Australian Standard AS/NZS 4360:2004 Risk Management.
TIMEFRAME: ONGOING ACTIVITY

3. Quality control – Development and dissemination of standards for post-disaster needs assessment tools and systems
Examples: agreed indicators; agreed timelines; agreed information flow; agreed terminology
TIMEFRAME: ONGOING ACTIVITY

4. Tool and system development / inventory – Design, testing and inventory of systems and tools for steps 7 to19 across all clusters
TIMEFRAME: ONGOING ACTIVITY

5. Base-line data pre-loading– Identification of baseline data sources and pre-loading tools and systems
Illustrative sources: UN Millennium Development Indicators; UNDP Human Development index; ECHO Vulnerability and Crisis Index
TIMEFRAME: ONGOING ACTIVITY

6. Training, exercises and awareness – Design and conduct of programming for persons completing and receiving post-disaster needs assessments as well as appeal documents
TIMEFRAME:ONGOING ACTIVITY

Disaster: relief and response phase IN COORDINATION WITH NATIONAL/LOCAL AUTHORITIES

7. Alerting – Production and dissemination of alerts regarding actual or possible humanitarian disasters (severity, exposure, vulnerability)
Illustrative systems: Global Disaster Alert and Coordination System – Provides near real-time alerts about natural disasters around the world
HEWS – Provider of analysis of possible occurrence of disasters
TIMEFRAME: FIRST 12 HOURS

8. Technical loss estimation – Production and dissemination of technical estimates of hazard severity
Illustrative authority: WAPMERR – Provides loss estimates for M6 earthquakes in populated areas
TIMEFRAME: FIRST HOURS

9. Information flow – Facilitation of the flow of operational information
Illustrative systems: OCHA-OSOCC; OCHA-ReliefWeb; GLIDE ; UNOSAT –Provider and coordinator of disaster satellite images and maps TIMEFRAME: FIRST 12 HOURS

10. Needs assessment – relief and response – Analysis and recommendation of relevant counter measures Illustrative tools: OCHA situation reports; SPHERE Humanitarian Charter and Minimum Standards TIMEFRAME: FIRST 24 HOURS

11. Relief and response planning – Development of plans to implement relief and response counter measures TIMEFRAME: FIRST 48 HOURS

Post-disaster: early recovery phase COORDINATION WITH NATIONAL/LOCAL AUTHORITIES

12. Needs assessment – early recovery – Analysis and recommendation of relevant counter measures
Illustrative authorities, systems and tools: Immediate Shelter Impact Assessment; Immediate Livelihood Impact Assessment; Methodology Rapid Assessment for Humanitarian Assistance

13. Early recovery planning – Development of plans to implement early recovery counter measures

14. Flash Appeal – Production and issuance of a flash appeal

15. Early recovery operations – Implementation of early recovery plans based on the response to the flash appeal
TIMEFRAME: 72 HOURS TO 2 WEEKS

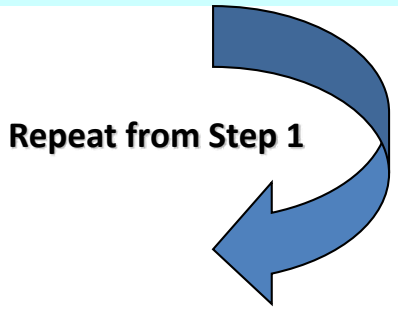
Post-disaster: recovery phase (rehabilitation and reconstruction) IN COORDINATION WITH NATIONAL/LOCAL AUTHORITIES

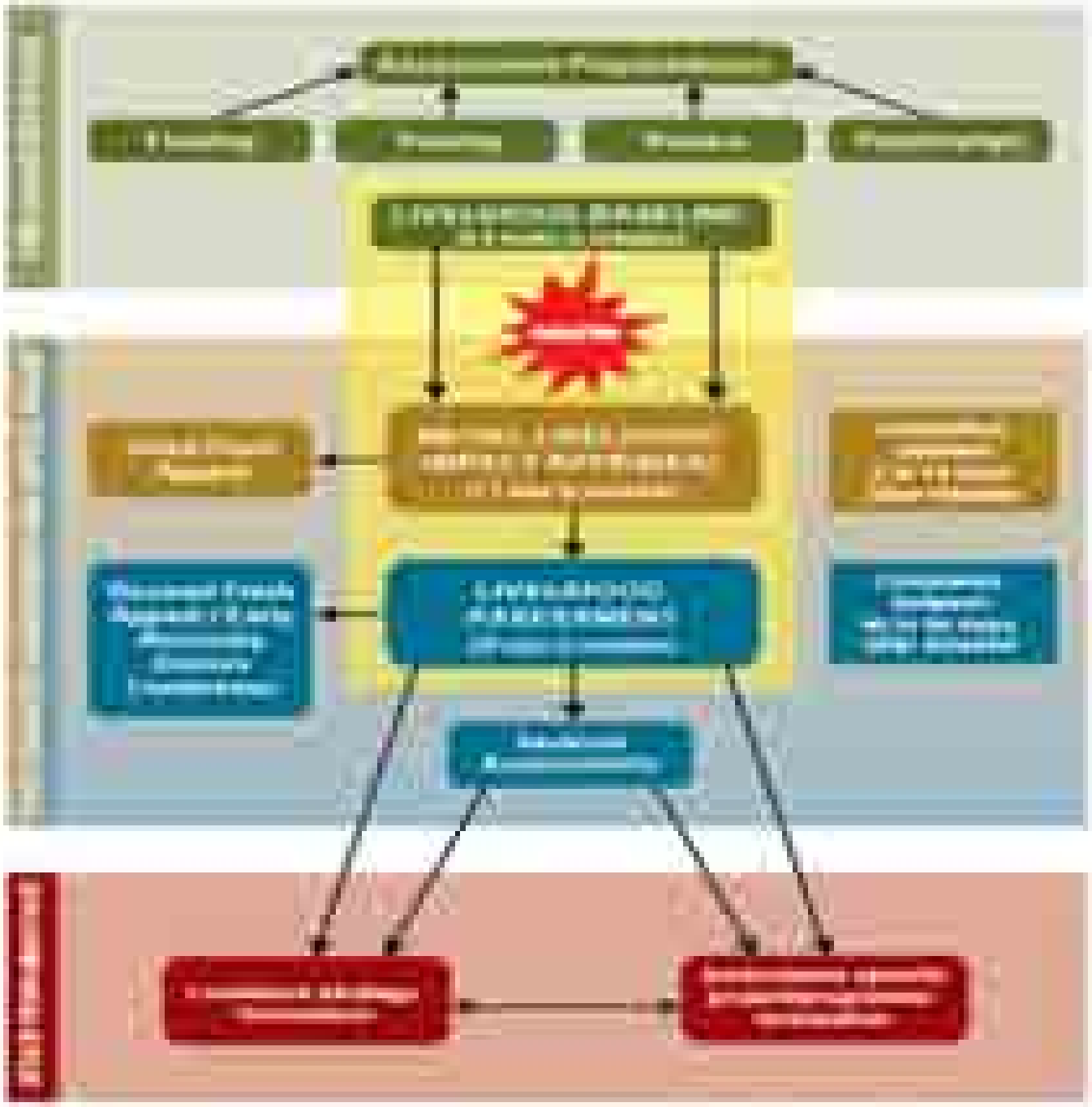
16. Needs assessment – recovery – Analysis and recommendation of counter measures to restore or improve pre-disaster development outcomes
Illustrative tools: ECLAC Handbook for Estimating the Socio-Economic and Environmental Effects of Disasters; GTZ, UNDP, World Bank, UNDG Practical Guide to Multilateral Needs Assessments in Post-Conflict Situations

17. Recovery planning – Development of plans to implement recovery (rehabilitation and reconstruction) counter measures

18. Donor Conference – Conduct of a donor conference

19. Project Management– Implementation and monitoring of recovery plans based on response to donor conference
TIMEFRAME: 3 WEEKS ONWARDS





Integrated approach

- Coordination: respond in a coordinated way to government multiple / overlapping requests
- Allow for diverse end results depending on purpose of the assessment
  - Search and rescue information needs
  - Humanitarian response needs (DANA, UNDAC/OCHA assessments)
  - Early recovery needs (transition from assistance to self sufficiency)
  - Restoration of basic lifelines and livelihoods (move to sustainable processes)
  - Recovery frameworks (BCPR/PDNA)
  - Reconstruction (financial, technical and absorptive capacity to sustainable development objectives, IFIs assessment)

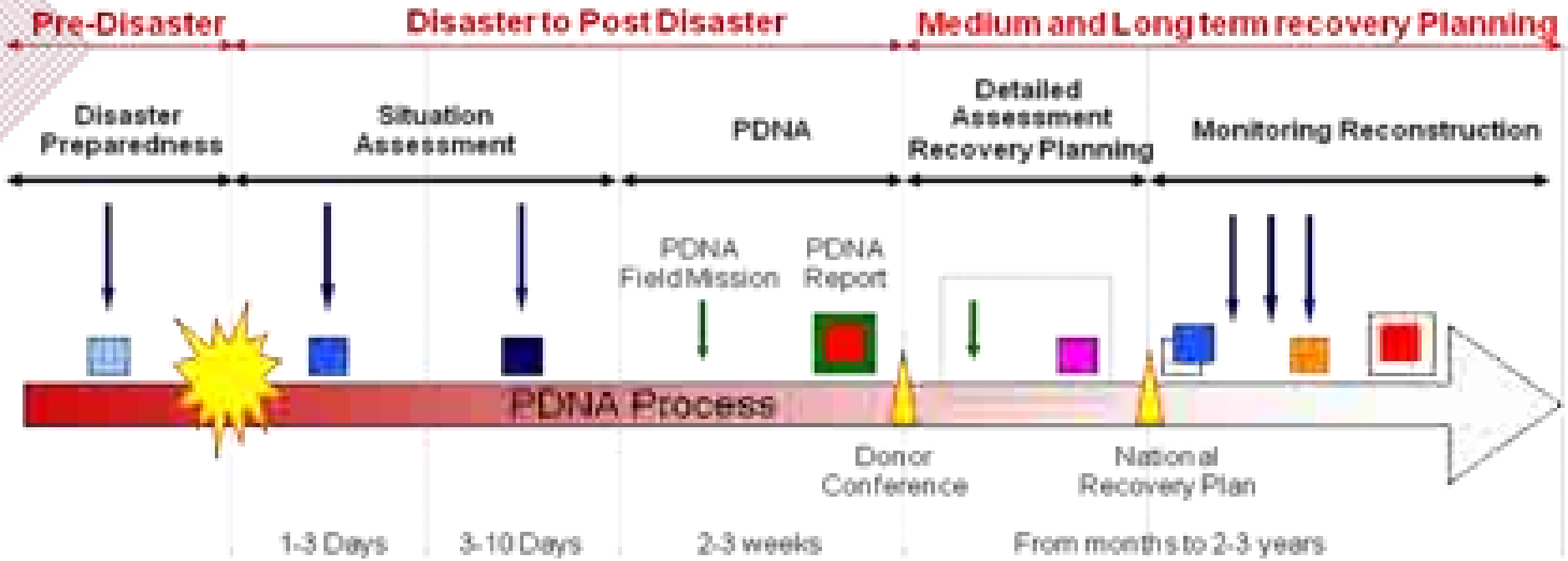
Organization and procedures of PDNA

- Approach: multisectoral, interdisciplinary, inter-institutional
- Timeliness: within the “window of opportunity”, not interfering with emergency actions, but reflect immediate response
- Sequencing of assessments (simultaneity and non-duplication)
- Ensure full coverage and avoid duplication
- Need for “judgment calls”: respect and build on experts
- Trade-offs: Timeliness, accuracy and costs
- Link emergency needs assessments (as done by countries, NGOs, IFRC, OCHA, UNDAC, etc.) through rapid assessments to the needs for recovery and reconstruction

Information requirements

- Comparability of data requires training and capacity building of governments and UN at ground level
- Use of common data-gathering platform (standardization of information gathering)
- Technical considerations: Harmonization, transfer and access to information between methodologies and tools
- Mapping of several results to be obtained sequentially, under a common framework (based on multisectoral approach)
- Use of satellite imagery for assessment (with appropriate baseline pre disaster data)

Information and satellite derived products for PDNA process



Satellite Imagery Acquisition

Collection of geospatial data over hazard prone areas

Location maps and Disaster overview maps

Rapid damage assessment maps

Field work

Disaster

PDNAReport

Key-Event

Not yet implemented

Spatial Database Infrastructure

Disaster Risk Assessment

Training for Local Authorities

Monitoring Report

Source: JRC – UNOSAT

Handbook for Disaster Assessment, Third Edition

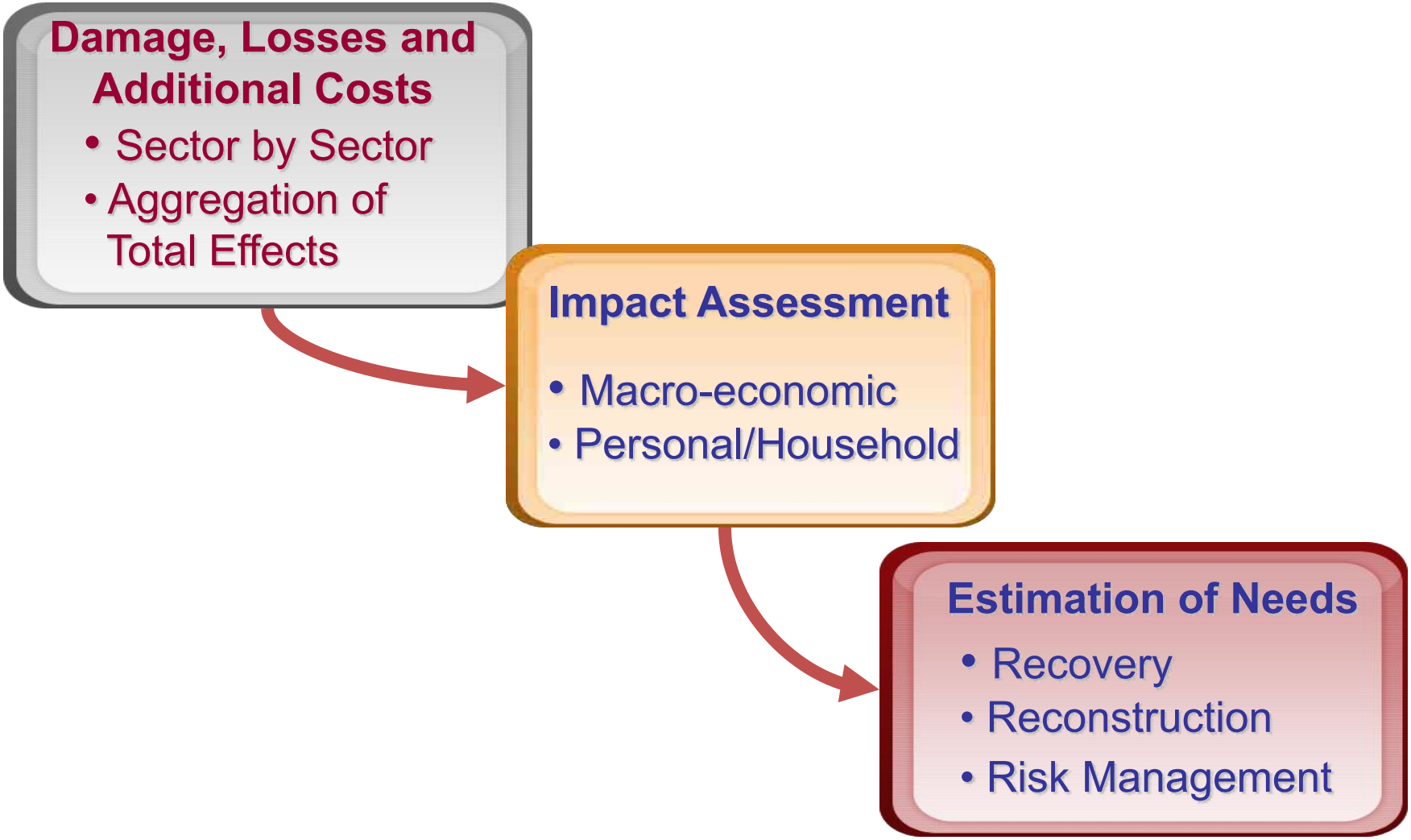
1) Methodological issues regarding stocks and flows. In particular, measuring the effects of disasters on flows: present separately losses and additional costs.
2) Integration between methodology and the national accounts framework. Emphasis on the social sectors.
3) Chapter about epidemics: application of ECLAC´s methodology jointly developed with PAHO on its effects to the health sector.
4) Mainstreaming a gender perspective. The chapter incorporates all issues and lessons learned on gender since 2003.
5) Chapter devoted to methodology to estimate disaster impact on the environment.
6) Productive sectors: present separately manufacturing and commerce sectors, and specific chapter for tourism sector.
7) Chapter to estimate damage, losses, and additional costs for the cultural sector.

Disaster Assessment - DaLA

1. Estimation of effects: Damage, Losses, and Additional Costs
2. Estimation of Impacts: Macro-economic and household level
3. Estimation of financial needs:
    a) Recovery: It is partially estimated with the additional costs
    b) Reconstruction

It is a methodology based on sector data.

Damage and Loss Assessment Process



Estimations by sector

Affected population

Social

- Education
- Health
- Housing
- Culture and cultural assets

Infrastructure

- Transportation
- Water and sanitation
- Power sector

Estimations by sector

Economic sectors

- Agriculture sector
- Manufacturing
- Commerce
- Tourism

Once the effects are estimated by sector, we proceed to estimate the impacts at macroeconomic and personal levels.

Overall and cross-cutting effects

- Macroeconomic impact
- Mainstreaming a gender perspective
- The environment

Effects and Impacts

DaLA methodology is based on the estimation of effects and impacts of disasters

- Effects of a disaster: damage, losses and additional costs resulting from the total or partial destruction of assets from disasters
- Impact of a disaster: the consequences of a disaster´s effects for social and economic variables such as household income, unemployment, GDP growth and fiscal deficit.

Estimates of damage and losses are done with respect to the baseline.

Damage - The Baseline

Damage is measured relative to a baseline or pre-disaster situation. This is constructed using information existing prior to the disaster on the assets of the different sectors in the affected region, which is compiled during the estimation process.

Statistics have to be improved to determine assets value exposed

Replacement costs should not include the costs of dealing with existing deficiencies in the affected area (such as housing deficits), as these did not result from the event whose impact is being estimated.

Losses

Losses are the value of goods that go unproduced and services that go unprovided during a period running from the time the disaster occurs until full recovery and reconstruction is achieved.

Examples include a reduction in the size of future harvests because of the flooding of farmland or prolonged droughts, a decline in industrial production because of damage to plant or lack of raw materials or inputs such as water and electricity, and revenues forgone by utility firms because their services have been interrupted or reduced.

Losses are hard to measure fully at the time valuation is carried out (a few weeks after the disaster). They are a dynamic measure of flows.

Losses

The baseline

Losses are calculated as the difference between a situation that has not occurred, which is the evolution the sector was assumed to be going to have before the disaster, and another situation that has not occurred either, the behaviour that will take place after the disaster.

To avoid losses being overestimated, the baseline must be estimated from the best information available and in a way that is consistent across sectors. It is suggested that the most recent projection of the economy, disaggregated by sectors, should be used to establish the baseline. This forecast needs to be revised in the light of recent economic trends.

It is harder to calculate a baseline for losses than for damage because assumptions have to be made.

Additional Costs

Additional Costs

Outlays required to produce goods and provide services as a result of the disaster. These represent a response by both the public and the private sectors, which may take the form of:

a) additional spending and/or

b) spending shifting.

Additional Costs and Losses

It is important to distinguish between the two types of flow disruptions:

1) Losses are the value of goods cease to be produced and services provided as a result of the disaster while additional spending or a recomposition of spending are a public policy decision or private-sector response to the event.

1) Losses are obtained by comparing the outlook after the disaster with a baseline represented by the evolution each sector would have had if the disaster had not occurred. These are both hypothetical situations that rely on a number of assumptions, as does any estimate derived from them. Conversely, additional costs or a recomposition of spending are outlays that are in fact made as a consequence of the event.

Additional Costs and Losses

Losses, additional costs and financial needs for recovery

Financial needs for recovery are the costs of different supply and demand policies that help the economy return to normal.

Supply policies include

- the amounts required to restore provision of and access to basic services for the population.
- Resources to finance higher operating costs
- Resources to provide inputs and working capital so that production levels can be restored (in the production sectors of agriculture, stockbreeding, fishing, industry and trade).

Additional Costs and Losses

Losses, additional costs and financial needs for recovery

Demand policies include the funding required to implement temporary programmes, such as food-for-work or cash-for-work programmes, designed to provide a minimum income to those who have lost earnings or even been left workless.

Recovery and Reconstruction

Financial needs for each post-disaster program and activities must be estimated on the basis of a reliable and quantitative assessment of damage and losses caused by the disaster.

These needs must be expressed in a disaggregated manner taking into consideration breakdowns by sector of economic activity, geo-political divisions, and groupings of affected population