

The slide features a background of several interlocking gears in shades of orange and white. On the left side, there is a vertical strip with a colorful, abstract, and textured pattern. The text is centered and written in a dark blue, serif font.

TRAINING

SESSION

A RISK MANAGEMENT

FRAMEWORK

FINANCE SECTOR

PRESENTATION – MARCH

7, 2002



ADAPTATION ISSUES

- SEA LEVEL RISE
- GLOBAL MEAN TEMP FLUCTUATION
- CARIBBEAN PRECIPITATION
- HURRICANES
- HEAVY CONVECTIVE RAINFALL
- FLOODS DROUGHT (EXTREME



**MEAN
SEA LEVEL
RISE**

**THIS WAS THE ISSUE CHOSEN
FOR THE FINANCE SECTOR
PRESENTATION**



■ MEAN SEA LEVEL RISE- RISKS INVOLVED?

- SIGNIFICANT PERCENTAGE OF HUMAN SETTLEMENT
- COMMERCIAL INFRASTRUCTURE (Utilities, road)
- MORE PRESSURE ON INLAND RESOURCES
- INSURANCE, MORTGAGE PORTFOLIO
- COST OF MITIGATING STRUCTURE FOR SEAWALLS ETC.
- RIPPLE EFFECT ON FINANCIAL SECTOR
- PRESSURE ON DEVELOPMENT BANKS FOR AGRICULTURE, SETTLEMENT ETC.



■ MEAN SEA LEVEL RISE- KEY STAKEHOLDERS AND PARTNERS

- BANKS, INSURERS, RE INSURERS
- BUSINESS COMMUNITY
- MIN.FINANCE, PLANNING, HEALTH, HOUSING, PUBLIC WORKS, FISHERIES
- DISASTER PREPAREDNESS (Defence force, Police, Red Cross)
- UTILITIES, SETTLEMENT
- REPRESENTATIVES OF COMMUNITY
- COASTAL RESIDENTS, TOURISM OPERATORS
- MEDIA, NGO'S, PORT AUTHORITY



■ MEAN SEA LEVEL RISE-
AREAS OF CONCERN,
EXPERTISE OR INTEREST??????

■ GOVERNMENT AGENCIES
CONCERNS

DIVERSION OF DEVELOPMENT FUNDS

REVIEW OF DEVELOPMENT PLANS,
BUDGETS

AMENITY LOSS,

POSSIBLE NEW SOURCING

The background features a light orange to white gradient. Several gear icons of varying sizes and colors (orange, white, light blue) are scattered across the page. On the left side, there is a vertical strip with a colorful, abstract, and textured pattern.

EXPERTISE

TECHNICAL, ANALYSTS, ECONOMISTS,
ENVIRONMENTALISTS, SOCIAL PARTNERS

WHO SHOULD LEAD?

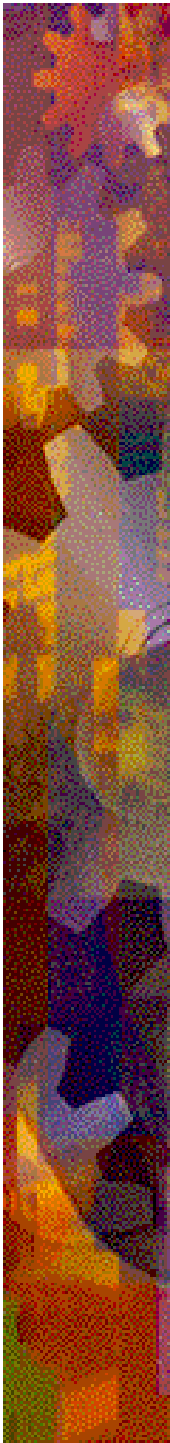
MIN. FINANCE AS LEAD AGENCY IN
COLLABORATION WITH

- COASTAL ZONE MGT
- MET. SERVICES
- DISASTER MANAGEMENT



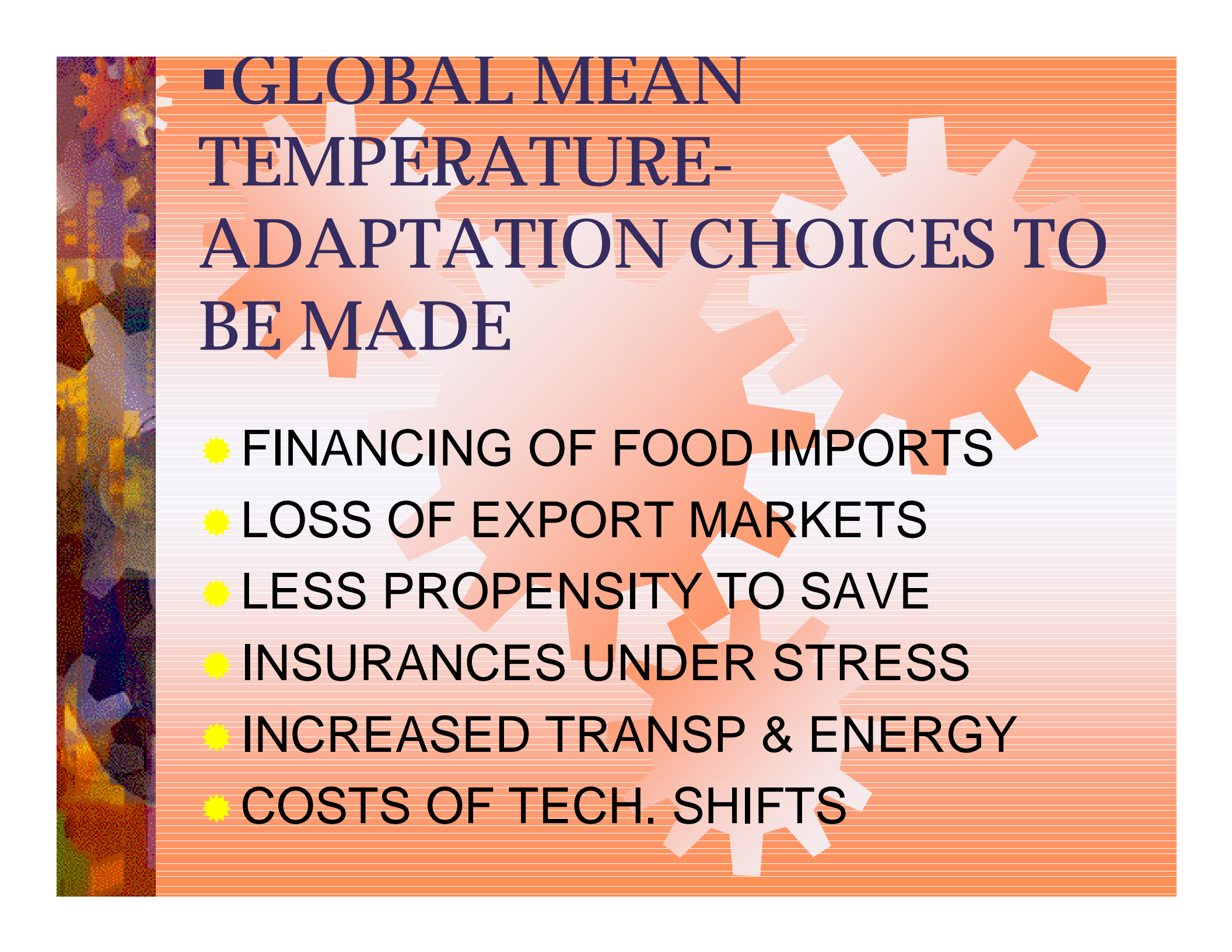
■ MEAN SEA LEVEL RISE- APPROPRIATE LEAD ORGANISATION

- MINISTRY OF FINANCE IN COLLABORATION WITH
- COASTAL ZONE MANAGEMENT
- MET SERVICES
- DISASTER MANAGEMENT



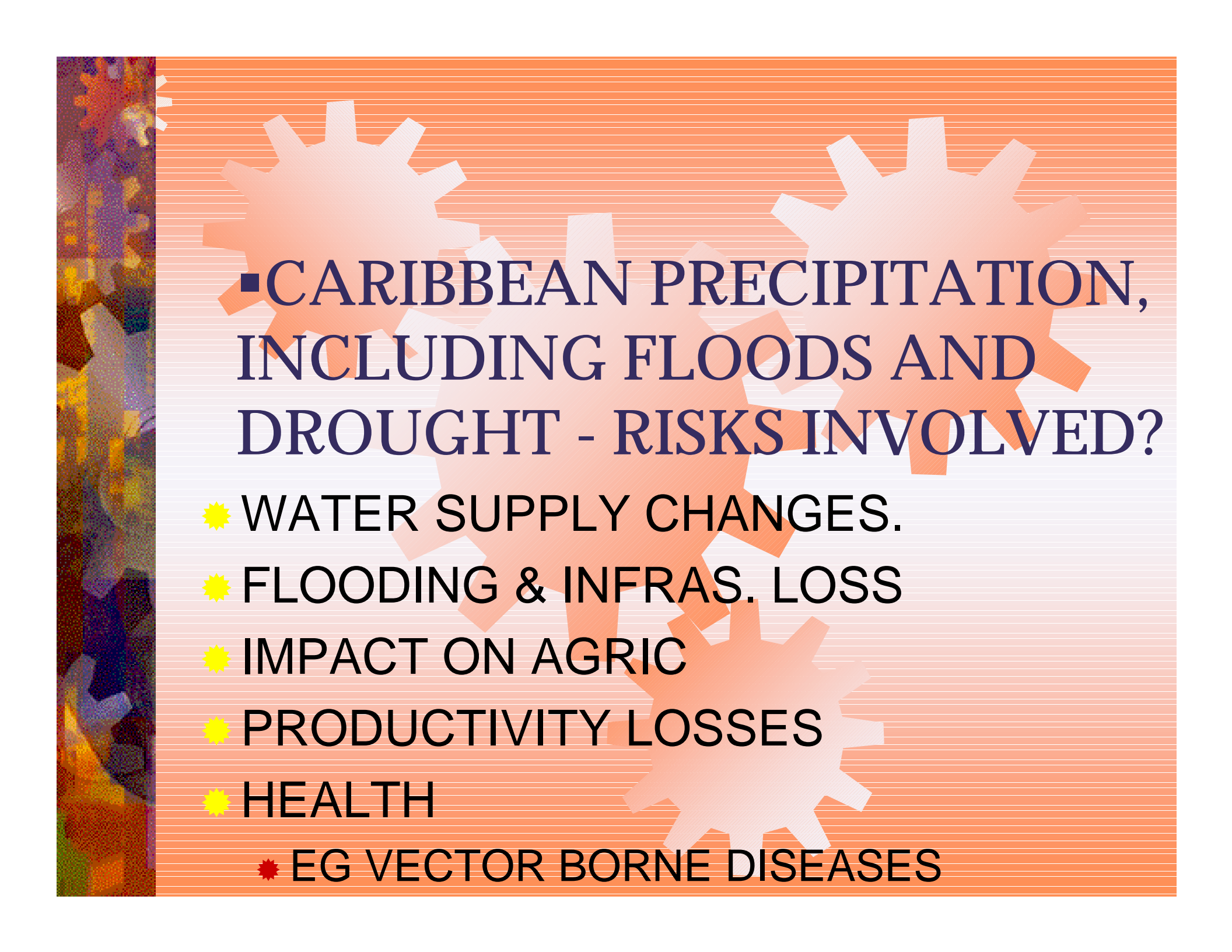
■ GLOBAL MEAN TEMPERATURE- RISKS INVOLVED?

- ★ PRODUCTIVITY CHANGES – AGRIC
- ★ HEAT STRESS RELATED DISEASES
- ★ REDUCED WATER AVAIL.
- ★ HIGHER ENERGY DEMAND
- ★ BIO DIVERSITY CHABGES



■ GLOBAL MEAN TEMPERATURE- ADAPTATION CHOICES TO BE MADE

- ★ FINANCING OF FOOD IMPORTS
- ★ LOSS OF EXPORT MARKETS
- ★ LESS PROPENSITY TO SAVE
- ★ INSURANCES UNDER STRESS
- ★ INCREASED TRANSP & ENERGY
- ★ COSTS OF TECH. SHIFTS



■ CARIBBEAN PRECIPITATION, INCLUDING FLOODS AND DROUGHT - RISKS INVOLVED?

- ★ WATER SUPPLY CHANGES.
- ★ FLOODING & INFRASTR. LOSS
- ★ IMPACT ON AGRIC
- ★ PRODUCTIVITY LOSSES
- ★ HEALTH
 - ★ EG VECTOR BORNE DISEASES



APPLYING SIX STEP MANAGEMENT DECISION-MAKING RISK COMMUNICATION PROCESS

INITIATION 11-15

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RISK CONTROL 28-32

ACTION/MONITORING 33-36

INITIATION-

DEFINE PROBLEM OR
OPPORTUNITY AND ASSOCIATED
RISK ISSUES

- ★ DISLOCATION IN NATIONAL ECONOMY.
60% OF POPULATION LIVING ALONG
THE COAST.
- ★ INUNDATION RESULTING IN LOSS OF
LIFE , DAMAGE TO INFRASTRUCTURE
- ★ SEABED INTRUSION, INCREASED STORM
SURGELOSS OF PROPERTY
- ★ NEGATIVE IMPACT ON COASTAL
ECOSYSTEM



INITIATION

IDENTIFY RISK

MANAGEMENT TEAM

- ★ FINANCE & PLANNING MINISTRIES
- ★ CZM HYDRO/MET
- ★ TOURISM AND OTHER BUSINESS ASSOCIATIONS
- ★ CBO'S, A-G REP, PUBLIC WORKS



INITIATION

ASSIGN RESPONSIBILITY,
AUTHORITY AND
RESOURCES

- ★ MIN FINANCE TO COORDINATE, TO INFORM THE PROCESS, TO BE VESTED WITH AUTHORITY



INITIATION

I.D. POTENTIAL
STAKEHOLDERS & BEGIN
TO DEVELOP
CONSULTATION PROCESS

- ★ FINANCE & PLANNING MINISTRIES
- ★ CZM HYDRO/MET
- ★ TOURISM AND OTHER BUSINESS ASSOCIATIONS
- ★ CBO'S, A-G REP, PUBLIC WORKS



PRELIMINARY ANALYSIS

DEFINE SCOPE OF THE DECISIONS

- PHYSICAL PLANNING, ZONING, OTHER INFRASTRUCTURAL CONS.
- INSTITUTE FISCAL & FINANCIAL MEASURES
- OPTIMISE NATURAL RESOURCE MGMT



PRELIMINARY ANALYSIS

DEFINE SCOPE OF THE
DECISIONS (CRITERIA)

- ✱ ADOPT COUNTERACTING MEASURES VS. EFFECTS OF S.L.R.
- ✱ I.D. AVAILABILITY OF FUNDS
- ✱ AVOID/MINIMISE SMALL ISLANDER DISLOCATION



PRELIMINARY ANALYSIS

DEFINE SCOPE OF THE
DECISIONS
(ASSUMPTIONS)

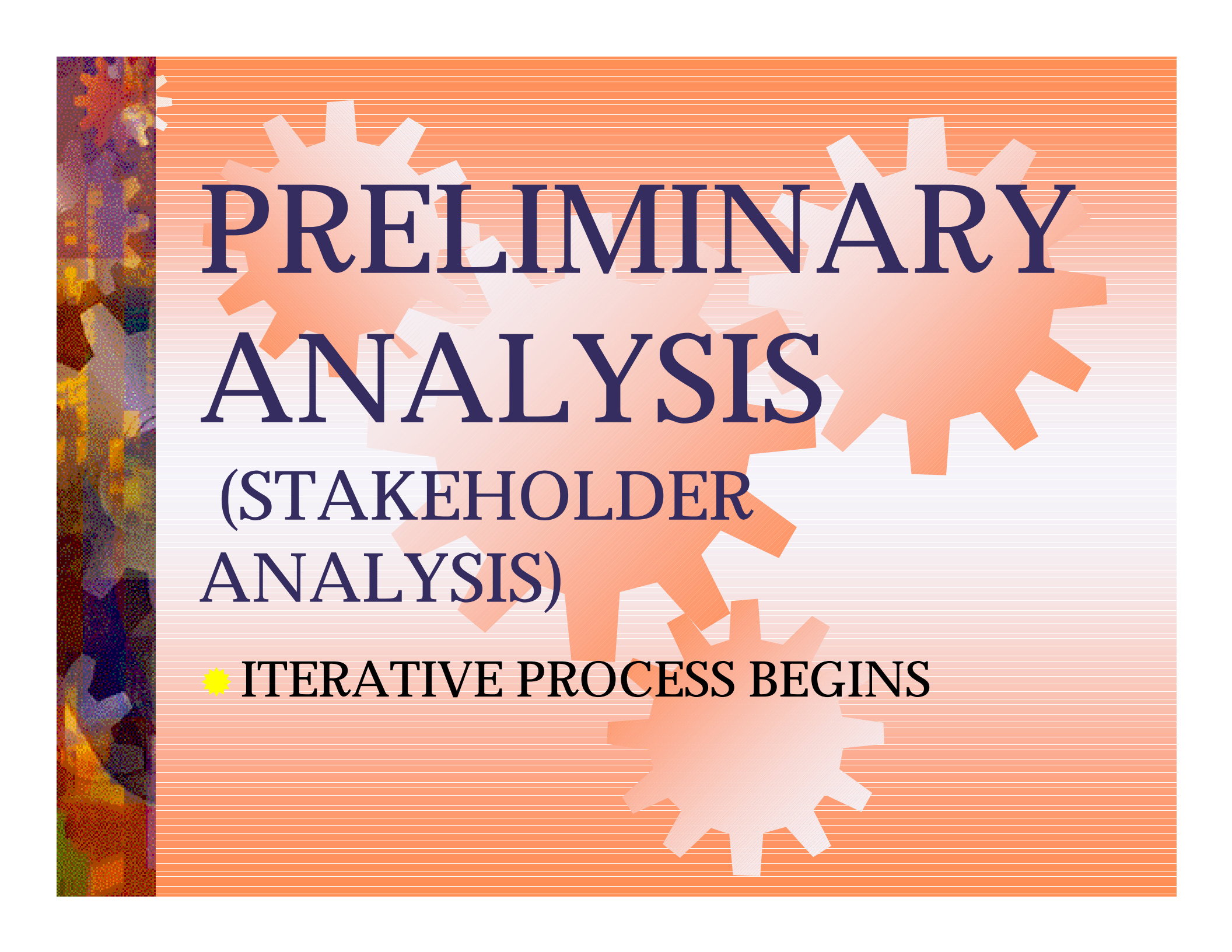
- POLITICAL WILL EXISTS
- FUNDING IS AVAILABLE



PRELIMINARY ANALYSIS

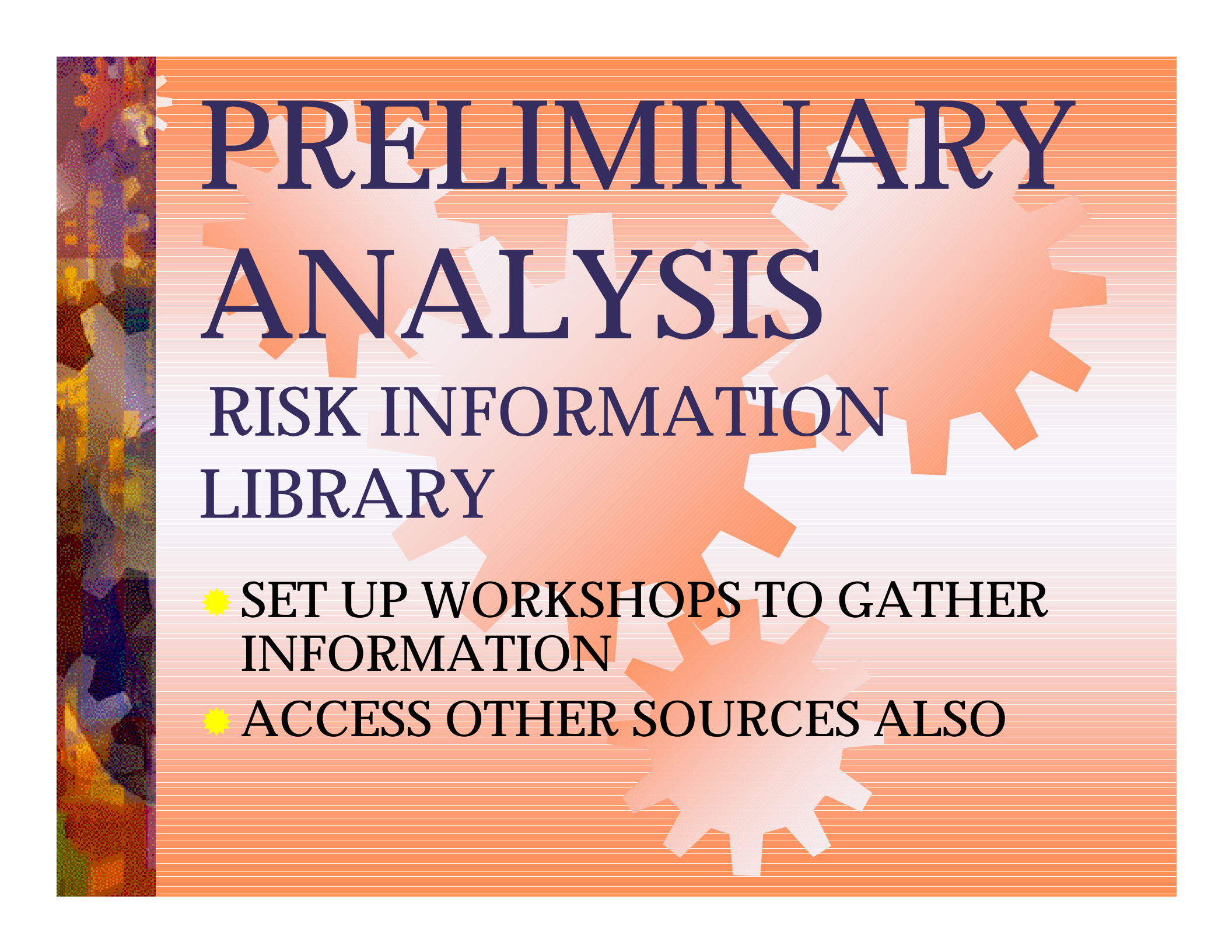
IDENTIFY HAZARDS USING
RISK SCENARIOS

- ☀ LOSS OF:
 - ☀ HEALTH
 - ☀ INCOME
 - ☀ PROPERTY
 - ☀ ENVIRONMENT



PRELIMINARY ANALYSIS (STAKEHOLDER ANALYSIS)

✦ ITERATIVE PROCESS BEGINS



PRELIMINARY ANALYSIS RISK INFORMATION LIBRARY

- ✦ SET UP WORKSHOPS TO GATHER INFORMATION
- ✦ ACCESS OTHER SOURCES ALSO



RISK ESTIMATION

METHODOLOGY FOR ESTIM. FREQUENCY &
CONSEQUENCES

- ✱ GATHER DATA
- ✱ UTILISE TECHNICAL EXP
- ✱ I.D. INFO REQUIRED
- ✱ SOURCE OF SUPPLY OF INFO
- ✱ COST OF INFO AT THIS STAGE



RISK

ESTIMATION

OF FREQUENCY OF RISK SCENARIOS



RISK

ESTIMATION

ESTIMATE CONSEQUENCES OF RISK SCENARIOS

- ENSURE TRANSPARENCY
- INITIATE THIRD PARTY REVIEW



RISK

ESTIMATION

REFINE STAKEHOLDER ANALYSIS THROUGH
DIALOGUE



RISK EVALUATION

ESTIMATE AND INTEGRATE BENEFITS AND COSTS

- ✱ COST/BENEFIT
- ✱ ESTIMATION/INTEGRATION
- ✱ CONTRACT EXPERT TO DO SENSITIVITY ANALYSIS OF COSTS AND BENEFITS
- ✱ COST OF DOING NOTHING
- ✱ COST OF TAKING ACTION
LANDWARD/SEAWARD



RISK EVALUATION

ASSESS STAKEHOLDER
ACCEPTANCE OF RISK



RISK CONTROL

I.D. FEASIBLE R.C. OPTIONS

- ✱ SETBACKS, SEAWALL, ZONING
- ✱ ENABLING LEGISLATION
- ✱ RISK TRANSFER OPTIONS



RISK CONTROL

EVALUATE R.C. OPTIONS
FOR EFFECTIVENESS,
COSTS AND RISKS



**RISK
CONTROL
ASSESS STAKEHOLDER
ACCEPTANCE OF
PROPOSED ACTIONS**



RISK CONTROL

EVALUATE OPTIONS FOR
DEALING WITH RESIDUAL
RISKS



**RISK
CONTROL**
ASSESS STAKEHOLDER
ACCEPTANCE OF
RESIDUAL RISKS



ACTION / MONITORING

DEVELOP AN IMPLEMENTATION PLAN

- ★ DEFINE TASKS
- ★ ASSIGN RESPONSIBILITIES
- ★ IMPLEMENT WORKPLAN



ACTION

/MONITORING

IMPLEMENT CHOSEN

CONTROL, FINANCING AND

COMMUNICATION STRATEGIES

- BUILD INTO PLAN MILESTONES AND CHECKPOINTS FOR REVIEW AND SUBMISSION OF REPORTS
- MANAGE FISCAL AND LEGAL ISSUES



ACTION

/MONITORING

**EVALUATE EFFECTIVENESS OF
RISK MANAGEMENT DECISION
MAKING PROCESS**

- ★ **CONSISTENT FEEDBACK TO AND
UPDATE OF CONSTITUENTS AND
STAKEHOLDERS**



ACTION

/MONITORING

ESTABLISH A MONITORING
PROCESS, SUNSET, TERMINATE A
APPLICABLE

- ☀ CONTINUOUS MONITORING
- ☀ BENCHMARKING TO ASSURE QUALITY AND PERFORMANCE STANDARDS
- ☀ INCLUDE A SUNSET CLAUSE WITH CONDITIONAL OPTION TO EXTEND TO ENSURE CLOSURE AT APPROPRIATE TIME



**THANK
YOU
END OF
PRESENTATION**