

# **ENVIRONMENT AND INFRASTRUCTURE TRACK**

# Alignment of Objectives

**Philippine Government's Priorities**



**DOST's Priority Programs**



**ERDT Consortium's Programs**



**Environment  
and  
Infrastructure**

**Energy**

**Semiconductor  
and  
Electronics**

**Information  
Technology  
and  
Communication**

**Manufacturing  
and  
Machinery**

**Criteria:**

1. Projects/researches should enhance Philippine competitiveness
2. Projects should eventually find its way to the Govt's priority projects

# Specific Objectives

## Philippine Government's Priorities

Governance

Poverty  
Reduction

Rapid,  
Equitable  
Sustained  
Economic  
Growth

Peace/Rule of  
Law

Integrity of  
Environment/  
Climate Change  
Mitigation and  
Adaptation



## DOST's Priority Programs

S&T to solve  
pressing  
national  
problems

Develop  
technologies to  
create growth  
in countryside

Improve  
Industry  
Competitiveness

S&T to  
enhance  
government  
and social  
service

Enhance  
capacity in  
emerging  
technologies



Energy

Transportation

Environment

Disaster  
Mitigation

Food

Mining

Process

# Environment and Infrastructure Track

**GRASS & MARINE**

**Green and Affordable Shelter Systems**

**BETTERMINE**

**Better Mining Technologies**

**DRINK**

**Drinking water for every home**

**TAMER**

**Tactical Mapping for Environmental Risk  
Management**

**ITS**

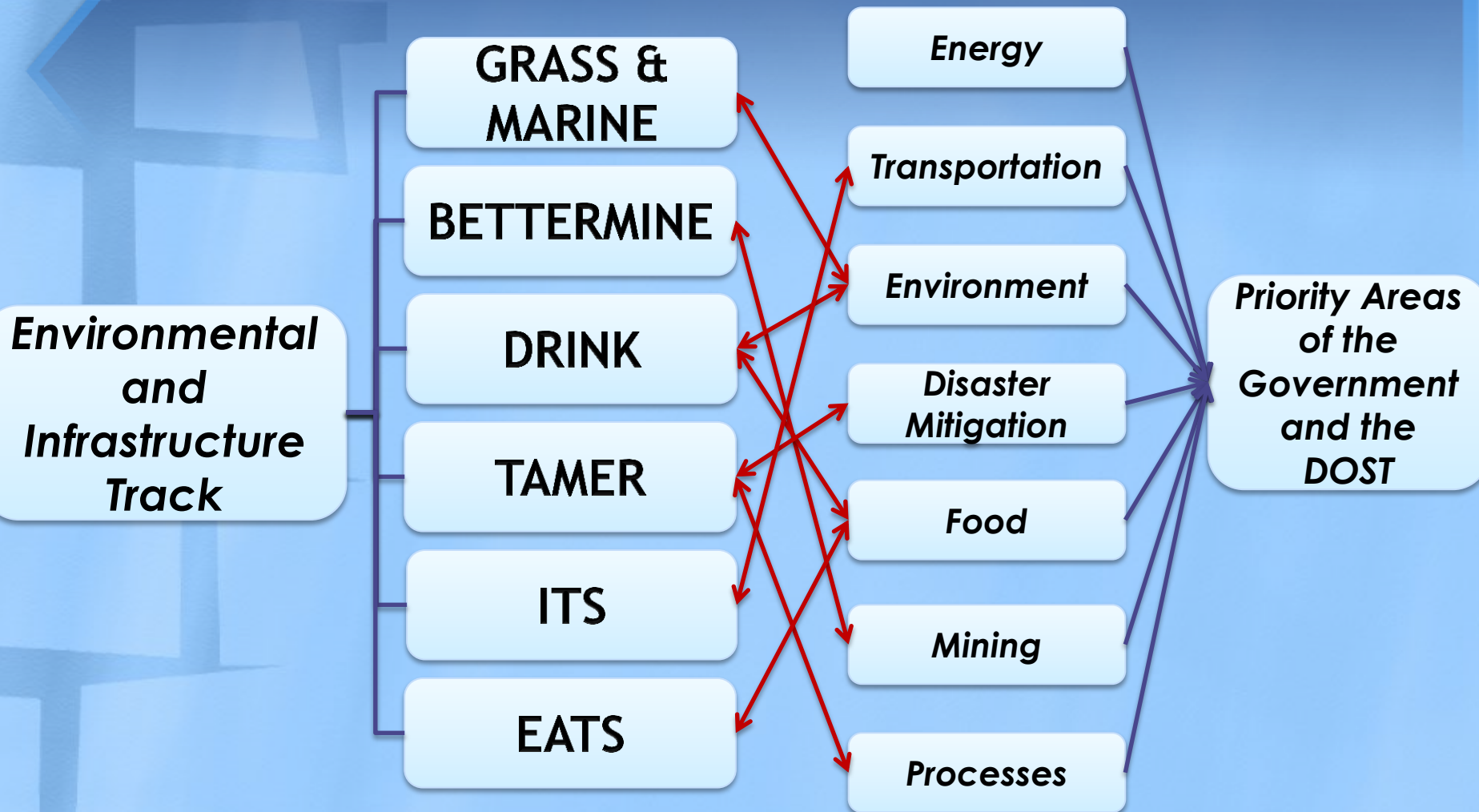
**Intelligent Transport Systems**

**EATS**

**Environmental Adaptation Technologies &  
Systems for Food Security**



# Alignment of Priorities



# Objectives, Action Plans, Enablers

**Specific  
Research  
Objectives**

GRASS  
&  
MARINE

BETTERMINE

DRINK

TAMER

ITS

EATS

**Activities/  
Action  
Plans**

FGD →

FGD →

RTD  
R&D List →

Presentation

**Enablers**

Availability of  
Resources

Depth of  
Knowledge

Industry  
Experience Linkage

Access to  
Research Funds

Host/Lead  
Institutions

Availability of  
Researchers



# Key Research Areas

**GRASS & MARINE**

**Green and Affordable Shelter Systems**

**BETTERMINE**

**Better Mining Technologies**

**DRINK**

**Drinking water for every home**

**TAMER**

**Tactical Mapping for Environmental Risk  
Management**

**ITS**

**Intelligent Transport Systems**

**EATS**

**Environmental Adaptation Technologies &  
Systems for Food Security**

# **GRASS and MARINE**




**Sustainable Housing Systems**



**Erosion Control**



**Residential Building Code**



**Durability Parameters in Reinforced Concrete**



**Corrosion Studies**



**Use of Bamboo in Structures**



**Use of Alternative Materials**



# **BETTERMINE**



**Efficient Mining Extraction**



**Gold Jewelry Production Life Cycle Analysis**



**Wastewater Treatment**



**Nanofiber Technologies**



**Wetlands Construction**



**Integrated Wastewater Treatment for Mining Sites**

# BETTERMINE



Borax Extraction



Substitutes for Mercury Amalgamation



Alternative Technologies for Processing Chromite

# **DRINK**



**Cleaner Production of Water**



**Monitoring of Water Quality**



**Better Interaction among LGU's and SUC's**



**Septage Management**



**Compact Systems for Pre-treatment of Wastewater**

# DRINK



Water Safety



End of Pipe Solution for Water Treatment



Drinking Water Treatment Processes



# TAMER

 Data Center for Environmental Data (water quality, geologic, air, risk)

 Generated Thematic Maps (GIS, RS)

 Decision Support Systems

 Integration of Other Envi and Infra Tracks

# **TAMER**



**Comprehensive Geo-Hazard Maps**



**Emerging Diseases and Environmental Factors**

# ITS

**Advanced Public Transportation and Travel Information System**

**Traffic Information/Navigation System**

**Microscopic Traffic Simulation System**

**Parking Management System**

**Common Ticketing System**

# **EATS**

**Innovative and Integrated Aquaculture Systems**

**Controlled Environment/Systems for High Value Crops**

**Environment-friendly Food Production and Handling  
Systems**



# **EATS**



**Innovative Food Production Infrastructure**



**Mechanization Technologies**



**Climate Change Vulnerability Analysis**

# **Moving Forward**



**Enhance Capacity to Produce Valuable and Relevant Research**



**Strengthen Industry Linkages and Consultation**



**Wider Scope of Experts**

# **Moving Forward**



**We encourage you to join**



**We need your help and support**



**Thank You !!!**

# PARTICIPANTS



# ACADEME

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CENTRAL LUZON STATE UNIVERSITY

DE LA SALLE UNIVERSITY

MAPUA INSTITUTE OF TECHNOLOGY

MINDANAO STATE UNIVERSITY (MSU) - ILIGAN INSTITUTE OF TECHNOLOGY (IIT)

TECHNOLOGICAL UNIVERSITY OF THE PHILIPPINES (TUP)

UPD - COLLEGE OF ENGINEERING

UPD - NATIONAL CENTER FOR TRANSPORTATION STUDIES (NCTS)

UPD - OFFICE OF VC FOR R&D

UPLB - COLLEGE OF ENGINEERING AND AGRICULTURAL TECHNOLOGY

# GOVERNMENT



DILG



DOST - PCIEERD



DOTC



DPWH



ENVIRONMENTAL MANAGEMENT BUREAU (EMB)



MMDA

# INDUSTRY

MANILA WATER CORPORATION

MAYNILAD

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