





# Environmentally Sustainable Transport Strategy

Mr. CHUON Chanrithy, Director, MoE Mr. Vong Pisith, Dty. Director-General, MPWT CAMBODIA

Third Regional EST Forum, 17-19 March 2008, Singapore



# Contents



- Background/Introduction
- Grant Agreement between the United Nations & Royal Government of Cambodia
- Formatting/Drafting National EST Strategy
- Institutional Coordination Mechanism/Process of National EST Strategy Formulation
- Organization of 1st Nat'l Consultation on the 1st Draft EST Strategy
- Next Steps & Finalization



## Background/Introduction





Date: 30 January, 2004

Mr. Kazunobu ONOGAWA, Director

United Nations Center for Regional Development 1-47-1 Nagono, Nakamura-ku, Nagoya 450-0001, Japan

Tel: +81-52-561-9417 Fax: +81-52-561-9374

Manila Policy Dialogue on Environmental Sustainable Transport (16-17 Jan. 2004). Request technical assistance for comprehensive study of National Strategy and actio

plan ou EST in Cambodia.

Transport is critical issue for Cambodia's economy due to the growing of regional mades and urbat development has a close relation. Large cities may be harmed with insufficient transportation system. F well-planned transportation system is necessary for orderly urban growth.

Phnom Penh, Siem Reap and other cities, have high possibility to face severe urbar, problems in the near future. The cities require the areas for new industrial, commercial and residential development. Wide suburban areas can be orderly developed through well-planned transportation improvement, sustainable use of natural resources and environmentally sound management. A wide range of invironmental issues, including environmental impact assessment, pollution prevention and control, public participation and access to information must be ensured environmental sustainability and social equil

An integrated strategy, incorporating all the elements such as ambient air quality monitoring, vehicle emission control, fuel quality, transport planning and demand management, raftic note management, mobilizing collaborative research and regional cooperation, strengthening knowledge base, and consideration of international obligations, will be required to achieve an acceptable outcome with respect to Environmental Sustainable Transport (EST).

Your assistance and cooperation is highly appreciated

Yours Sincerely.

Ministry of Environment

Ministry of Public Works and Transport

Mr. Tetsushige MSHIO, Director General of Environmental Management Bureau

Far 855232192

Ministry of the Environment, Japan. Fax: +81-3-3580-7173.

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 Requested Joint Letter of the MoE and MPWT made to the UNCRD dated 30 January 2004 for the possible technical assistance in National EST capacity building







- UNCRD Fact-finding mission to the MoE, MPWT on 4 February 2004;
- Nominated EST Nat'l Focal Point and Coordinators of the MoE and MPWT in August 2004







- Organized Inception
   Meeting on EST on
   13-14 Sept. 2004 with
   the technical
   assistance of the
   UNCRD;
- Established National Working Group composed of key stakeholders in December 2004 after the Inception







### **Capacity Building:**

The MoE & MPWT officials got trained in Urban Environment & Transport Development from 8 Nov. 2004 to 17 Dec. 2004 at the UNCRD, Nagoya, Japan









- Group Mission of the UNCRD and MoE of the Govt. of Japan to the MoE, MPWT & the CC on 2 April 2005;
- UNCRD Mission on 7
   July 2005 to discuss
   the in-country training
   needs and
   assessment









- Mission of the UNCRD's Director pre-Grant Agreement signing between the MoE & UN DESA;
- Discussion held between the UNCRD & MOE, MPWT, CC on the process of EST strategy formulation

#### Grant Agreement Signing b/w the UN DESA & MoE: Nat'l EST Capacity Building for **GRANT AGREEMENT** BETWEEN Socio-economic Concerns Project

#### THE UNITED NATIONS AND GOVERNMENT OF CAMBODIA

This Grant Agreement is entered into by and between the United Natior its Department for Economic and Social Affairs (DESA) whose address Nations Plaza, New York, New York 10017, and the Department of Na Assessment, Ministry of Environment (MoE), Government of Cambodi is 48 Samdech Preah Sihanouk, Tonlo Bassac, Chamkamon, Phnom Per Cambodia (hereinafter referred as "Grantee").

WHEREAS DESA wishes to award to the Grantee a grant not t US\$52,000 (hereinafter referred to as "the grant") to support the impler Project entitled "National Environmentally Sustainable Transport (EST Capacity Building for Socio-economic Concerns" (hereinafter referred Project");

WHEREAS the Grantee accepts the grant and undertakes to use Project activities in accordance with the terms and conditions set out he

NOW THEREFORE, the United Nations and the Grantee (her to collectively as "the Parties"), agree as follows:

#### Article I **Documents constituting the Agreement**

The Agreement between the Parties consists of this document and the fo

Description of the Project Activities; Annex 1:

Annex 2: Estimated Budget for the Project Activities

Form of Financial Report Annex 3: Annex 4: Payment Schedule

#### Article II Objective of the Agreement

This Agreement establishes the terms and conditions under which Nations shall make the grant available to the Grantee, and the Grantee s for the Project Activities described in Annex 1.

#### Article X Settlement of disputes

Any dispute, controversy or claim arising out of the present Agreement, including the breach and termination thereof may, unless it is amicably settled by direct negotiations by the Parties, be referred by either Party to arbitration in accordance with the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules then obtaining. The Parties shall be bound by the arbitration award rendered in accordance with such arbitration, as the final decision on any such dispute, controversy or claim.

#### Article XI Privileges and immunities

Nothing in or related to the present Agreement shall be deemed a waiver, express or implied, of any of the privileges and immunities of the United Nations.

IN WITNESS WHEREOF the undersigned duly authorized representatives of DESA and the Grantee have signed this Agreement in two original copies, in the English language at the place and on the day written below.

For DESA Signature: Name: Mr. Guido Bertucci Title: Director, DPADM

Place: New York Date:

of Environment MoE, Govt.of

For the Grantee

Cambodia 555 Place: Phnom Penh, Cambodia

Name: Dr. Mok Mareth

Date: 16 November 2006

Title: Senior Minister and Minister



## Sub-Contracting between the MoE & Collaborating Center on 26 January 2007





Kingdom of Cambodia
Nation Religion King

Department of Natural Resources Assessment and Environmental Data Management, MoE

No.: 010.7 - 005. DD

Date: 26 January 2007

#### SUB-CONTRACT

This Sub-contract (herein referred to as The Sub-contract) is concluded

#### between:

The Department of Natural Resources Assessment and Environmental Data Management (DoNRA), the Ministry of Environment, No. 48, Samdech Preah Sihanouk Avenue, Tonle Basac, Khan Chamkarmon, Phnom Penh, Kingdom of Cambodia

and

The Collaborating Center "Khemarak Univeristy" (CC), Building D, Phnom Penh Centre, S/K Tonle Basac, Khan Chamkarmon, Phnom Penh, Cambodia.

The Department of Natural Resource Assessment and Environmental Data Management is the governmental institution - one of the other departments of the Ministry of Environment located at No. 48, S.P. Sihanouk Ave., Khan Chamkarmon, Phnom Penh, Kingdom of Cambodia, hereinafter referred to as "The DoNRA" and duly represented by Mr. CHUON Chanrithy.

The Khemarak University as the Collaborating Center is the human resource and academic institution existing under the Laws of the Kingdom of Cambodia having its principal place located at Building D, Phnom Penh Centre, S/K Tonle Basac, Khan Chamkarmon, Phnom Penh, Cambodia, hereinafter referred to as "The CC" and duly represented by Dr. Nou Chansophy.

The DoNRA of the Ministry of Environment, Cambodia is awarded the grant by the United Nations Department for Economic and Social Affairs (UN DESA) in support of the implementation of the Project entitled "National Environmentally Sustainable Transport (EST) Strategy and Capacity Building for Socio-economic Concerns" and carrying out of Project activities in accordance with the terms and conditions set out in The Grant Agreement dated 16 November 2006.

This Sub-contract is entered into by and between the Ministry of Environment, acting through The DONRA and The CC.

WHEREAS The DoNRA wishes to make formal sub-contract with The CC not exceeding US\$30,000 (Thirty Thousand US Dollar Only) to support the preparation of the National integrated EST Strategy consisted of 9 thematic areas such as (i) Traffic Noise Management, (ii) Cleaner Fuel, (iii) Vehicle Emission Control and Standard, (iv) Land Use Planning, (v) Transport Planning and Demand Management, (vi) Urban Infrastructure, (vii) Road Maintenance and Safety, (viii) Roadside Air Quality Monitoring and Assessment, and (ix) Knowledge Base and Research/Public Health and Awareness.

WHEREAS The CC accepts the sub-contract and undertakes to use it to prepare the National Integrated EST Strategy and submit to The DoNRA in accordance with the terms and conditions set out herein.

K.

NOW THEREFORE The DoNRA and The CC (hereinafter referred to collectively as "The Parties", agree as follows:

#### Article I: Documents constituting The Sub-contract

The Sub-contract between The Parties consists of this document and the following annexes:

- Annex 1: Description of the preparation of national EST strategy and activities
- Annex 2: Estimated Budget for the preparation of national EST strategy and activities
- Annex 3: Form of financial report
- Annex 4: Payment schedule

#### Article 2: Objective of The Sub-contract

This Sub-contract establishes the terms and conditions under which The DoNRA shall make the payment available to The CC, and The CC shall use the payment for the preparation of national environmentally sustainable transport strategy, project activities and administration described in Annex 1.

#### Article 3: Duration

- Unless otherwise agreed in writing by the Parties, the Project activities are to be completed by 31 January 2008.
- This Sub-contract shall enter into force upon signature by the Parties and shall remain into force until The CC has submitted, to the satisfaction of DoNRA, the final narrative and financial reports, and has returned to DoNRA any sums unutilized.

#### Article 4: Settlement of Disputes

Any dispute, claim arising out of The Sub-contract, including the breach and termination thereof may, unless it is amicably settled by direct negotiations by **The Parties**, be referred by either Party to arbitration in accordance with existing Laws of the Kingdom of Cambodia.

The CC shall closely coordinate and collaborate with the DoNRA, especially the National EST Working Group of the MoE and the MPWT regarding the preparation and revision of the National EST Strategy.

This Sub-contract is made in duplicate having identical contents and The Parties have read and understood the contents hereof and consider that they accurately and correctly reflect their intentions.

IN WITNESS WHEREOF the undersigned duly authorized representatives of The Parties have signed The Sub-contract in two original copies, in the English language at the place and on the day written below.

MoF-DoNRA

Signature: Name: Mr. Chuon Chanrithy
Title: Director, DoNRA

Place: Phnom Penh, Cambodia Date: 26 Jan, 2007 Khemarak University (The CC)

Name: Dr. Nou Chansophy Title: Rector

Place: Phnom Penh, Cambodia Date: 26 - 700 2007

H.

No. 48, S.P. Sihanouk Ave., Tonle Basac, Khan Chamkarmon, Phnom Penh, CAMBODIA, Fax: +855-23-222 648



# Formatting/Drafting Nat'l EST Strategy



#### **EXECUTIVE SUMMARY**

- **SECTION 1 INTRODUCTION**
- **SECTION 2 -** KEY ISSUES RELATED TO THE TRANSPORT SECTOR IN CAMBODIA
- **SECTION 3 STRATEGIC CHALLENGES**
- **SECTION 4 -** THE WAY FORWARD FROM STRATEGY TO ACTION
- **SECTION 5 IMPLEMENTATION & FINANCIAL MECHANISMS**
- **SECTION 6 CONCLUSIONS & RECOMMENDATIONS**



## **Nat'l EST Strategy Formulation**



- What is an EST Strategy meant for Cambodia
  - A Clear Plan to:
    - Address the current trends,
    - Introduce the EST concepts, and
    - Develop measures to improve the EST concepts.



# Major trends, developments and impacts in the transport sector in Cambodia



- Significant increase in traffic which is mainly due to an expanding economy and improving roads;
- Increasing vehicle emissions & traffic accidents which have an impact on the environment, health & consequently economic growth.



# 1. Health & environmental issues caused by the transport sector



#### <u>Issue</u>

- Less research & monitoring being undertaken;
- Limited knowledge on the effects of traffic pollution and noise on public health;

### **Challenges**

 To ensure that research to assess health impacts resulting from the transport sector is undertaken and public knowledge on the impacts on health from traffic emissions is improved.

### **Proposed Actions**

- To undertake research to assess health impacts resulting from the transport sector;
- To undertake awareness raising activities to improve public knowledge on the impacts on health from traffic emissions.

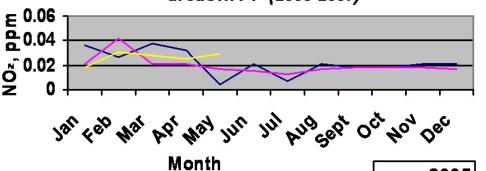


# 2. Issues related to roadside air quality monitoring & management





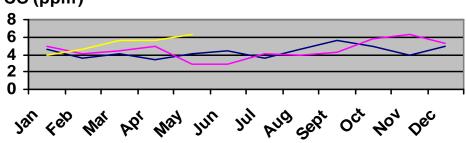
## The mean NO<sub>2</sub> in ambient air at selected areas in PP (2005-2007)



### Issue:

- Adverse impacts on air quality;
- Roadside air pollution;
- Health risk.

The mean CO concentration in ambient air at selected areas in PP (2005-2007)



Month





# 2. Issues related to roadside air quality monitoring & management (Contd.)



### **Challenges**

- Continuing population growth;
- Private vehicle dependency continues to rise, leading to prolonged congestion on major roads in major cities and increased potential for air pollution problems;
- Increased motor vehicular usage/ heavy traffic volume;
- Speed limit & congestion;
- Increased vehicle emission/levels of air pollutants;
- Existing roadways not fully yet improved;
- Limited capacity in roadway cleaning/ cleansing to eliminate dust.



## 3. Issues related to Vehicle Emission Control & Standards



### <u>Issue</u>

- High-polluting older & locally-assembled (nonstandardized) vehicles that account for a substantial portion of roadside and ambient PM levels in cities;
- Vehicular air pollution.



# 3. Issues related to Vehicle Emission Control & Standards (Contd.)



### **Challenges**

- Importation of older and used motor vehicles;
- Not all motor vehicles are registered, inspected & maintained;
- Weak heavy and medium weight automobile inspection & maintenance;
- Inspection and maintenance is conducted by the private sector, but with a limited number and looks centralized;

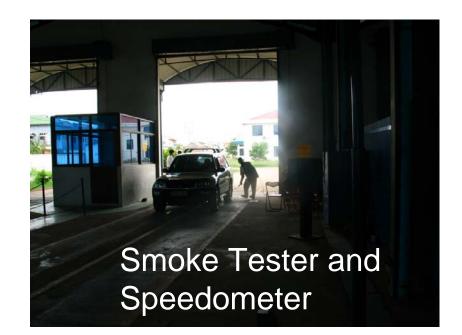


# 4. Issues related to Inspection & Maintenance (I&M) of Vehicle



### <u>Issue</u>

- Lack of inspection & maintenance of vehicles;
- Unsafe vehicles mobility;
- Increasing pollution from vehicles.







# 4. Issues related to Inspection & Maintenance (I&M) of Vehicle (Contd.)







### **Challenges**

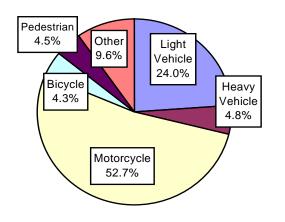
- Very few I&M stations existed;
- Increased road accident;
- Not all vehicles inspected;
- Unsafe & overloaded vehicles not restricted;
- Weak traffic law enforced.



## 5. Road Safety & Maintenance



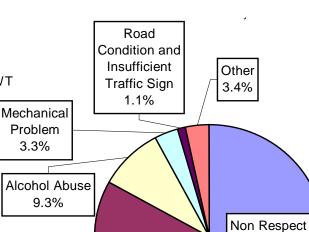
Damage by Type of Road User (2004) total number: 8,339



Source: Land Transport Department, MPWT

#### Issue

- Traffic Accident;
- Road Maintenance.



Speed Over

24.9%







Source : Land Transport Department, MPWT

Give Way

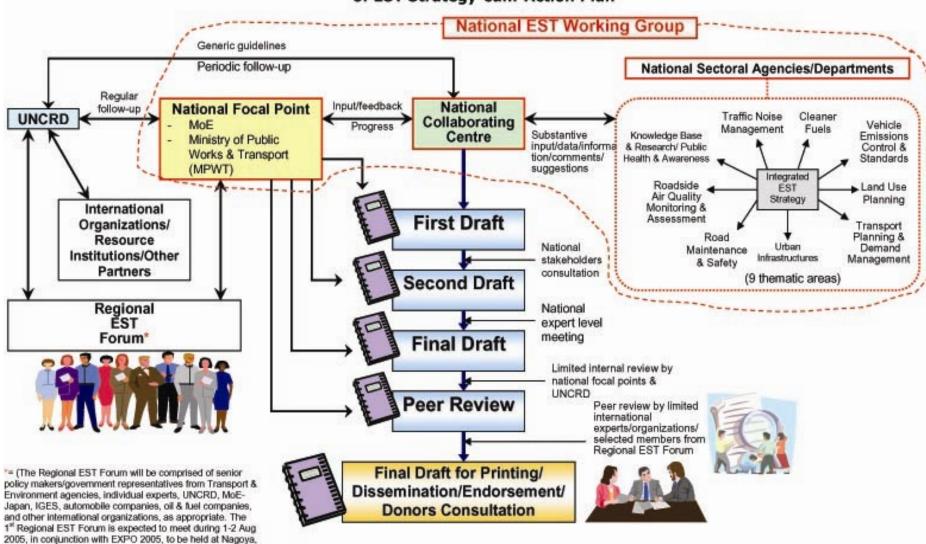
Rules 58.0%



Japan.)



### Institutional Co-operation/Mechanism vis-à-vis National EST-Working Group for Formulation of EST Strategy-cum-Action Plan





### **First National Consultation**





 1st Nat'l Consultation on "Draft EST Strategy" was organized on 3-4 Dec. 2007 in PNH and attended by involved key stakeholders, incl. public, private sectors, NGOs, research institutions to discuss & provide comments for the 2nd draft.





## Next Steps/Finalization



Jan-Mar 08: Revised the 1st Draft EST;

Mar 08: Attending the EST Forum;

**May 08**: Organize Nat'l Expert Consultation

to discuss the 2nd Draft;

May-Jul 08: Revise for the 3rd Draft;

?????: Finalize the EST Strategy.

## Thanks for your attention!