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Philippine Experience in Improving Fuel Quality

by:

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by the Asian Development Bank and US Asia Environmental Partnership

Republic of the Philippines
Department of Energy
Philippine Experience in Improving Fuel Quality

➢ Philippine Scenario
➢ Government Initiatives
➢ Challenges Met
➢ Lessons Learned
Philippine Scenario

Philippines

❖ Democratic Country
  ★ consultation
  ★ private sector agreements
  ★ executive issuances
  ★ laws

❖ Thrust
  ★ liberalization
  ★ deregulation
  ★ privatization
  ★ sustainable development
Oil Industry

- Regulated for two decades
  - pricing
  - non-pricing

- Deregulated in 1996/1998
  intervention on
  - quality
  - health
  - safety
  - environment
DOE Mandate

- Ensure supply
  - adequate
  - continuous
  - high quality
  - environment-friendly
  - reasonably-priced
Government Initiatives
To Improve Fuel Quality

- Phased Reduction Program
- Introduction of Unleaded Gasoline
- Phaseout of Leaded Gasoline
- Phased Sulfur Reduction in Diesel
Government Initiatives To Improve Fuel Quality

- Improve Fuel Formulations/Standards
- Consider Fuel Blends
- Consider Alternative Fuels
- Set Standards for Non-con Fuels
- Set-up Petroleum Testing Laboratory
- Register Additives
- Review Taxation/Incentives
# Government Initiatives To Improve Fuel Quality

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Phased Reduction Program (lead in gasoline and sulfur in diesel)</strong></td>
<td>- Philippine National Standards (1989)</td>
</tr>
<tr>
<td></td>
<td>- <strong>Clean Air Pact of 1993 (March 17, 1993)</strong></td>
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<td>- Commitment by the oil companies/refineries to accelerate fuel quality improvement</td>
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<td>- Introduction of unleaded gasoline (ULG) in Metro Manila - 2/14/94</td>
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<tr>
<td><strong>Introduction of Unleaded Gasoline</strong></td>
<td>- Philippine National Standards (1994)</td>
</tr>
<tr>
<td></td>
<td>- <strong>Oil Price Stabilization Fund (February 14, 1994)</strong></td>
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<td></td>
<td>- Equalized price of unleaded and leaded gasoline</td>
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<td>- <strong>Republic Act 8184 (August 16, 1996)</strong></td>
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<td>- ULG tax = P4.35 per liter, P1.00 per liter less than leaded equivalent</td>
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Government Initiatives
To Improve Fuel Quality

Phaseout of Leaded Gasoline

» Executive Order No. 446 (September 26, 1997)
  - Metro Manila: January 2000
  - Nationwide: January 2001

» Republic Act No. 8749, Clean Air Act of 1999 (June 23, 1999)
  - Nationwide - 18 months from enactment- December 23, 2000

» Industry MOA (January 18, 2000)
  - Accelerated phase-out in Metro Manila to April 1, 2000

» Bureau of Internal Revenue Revenue Regulation (February 2000)
  - Allowed commingling of ULG to leaded gasoline with corresponding taxes during the transition period
Phaseout of Leaded Gasoline - cont’d.

  - Promulgated by the Department of Energy Technical Committee on Petroleum Products and Additives
  - Pursuant to CAA specifications

  - adopted as PNS the DOE-TCPPA standard for ULG

» **DOE-led Transport Patrol**
  - energy efficiency in transport sector
  - awareness on ULG

» **Info campaign**
  - seminars
  - printed materials/streamers
Government Initiatives To Improve Fuel Quality

Phased Sulfur Reduction

» Philippine National Standards (2000)
  ❖ PNS for Automotive Diesel (ADO)
  ❖ PNS for Industrial Diesel (IDO)

» Republic Act No. 8749, Clean Air Act of 1999
  (June 23, 1999)
  ❖ Specified limits for ADO (2001 and 2004)
  ❖ Specified limits for IDO (2001)
### Government Initiatives To Improve Fuel Quality

#### Improve Fuel Formulations/Standards
- **Philippine National Standards**
  - Phased aromatics/benzene reduction
  - Review other properties/limits
  - Consider additives

#### Others
- **Set-up Petroleum Testing Laboratory**
- **Register Additives**
- **Review Taxation**
Consider Non-Conventional Fuels

» Fuel Blends
  ❖ Coco-diesel / coco-bunker
  ❖ Alcogas / alcodiesel

» Alternative Fuels
  ❖ CNG
  ❖ LPG

» Formulate Standards

» Recommend legislation review
  ❖ specific tax on fuel
  ❖ incentives

» Studies/Pilot runs
The DOE-TCPPA’s on-going fuel quality standards’ review/formulation considers international developments in fuel quality, vehicle technology & emissions standards.
Challenges Met

(Fuel Quality Improvement)

» Product Availability and Cost
  ❖ Local production capability vs. Import supply alternative
  ❖ Regulated prices - due notice and hearing
  ❖ Currency crisis and Increasing oil prices with OPEC’s production cut
  ❖ Competition with oil industry deregulation

» Quality Monitoring
  ❖ Sampling and storage
  ❖ Unbiased testing facility
  ❖ Manpower and budget constraints
Challenges Met
(Fuel Quality Improvement)

» Inter-Agency Cooperation/Support
  ❖ Laws/rulings for consistency
    - policy vs. enforcement

» Public Perception and Acceptability
  ❖ Environmentalists - high expectation
  ❖ Users - Vehicle compatibility and price
  ❖ Picket/Strike by Some Transport Groups
  ❖ Court Case

» Information and Education
  ❖ ADB/NGO/Oil and Auto Industry support
Lessons Learned

Information and Education
» Policy Makers
» Implementors/Enforcers
» Users
» General Public

Cooperation/Support
» Various Government Agencies
» Industry
» Non-Government Organizations/Civil Society
» General Public
Lessons Learned

Quality Monitoring

» Unbiased facility
» Impress seriousness of project
» Record developments
» Identify areas for improvement