

## **Fostering the Green Economy - Exchange of Asian Experiences in Implementing Environmental Fiscal Reforms**

**Pre-Workshop to the Global Conference on Environmental Taxation  
Wednesday, 3 November 2010, Imperial Queen's Park Hotel, Bangkok**

### **Workshop Report**

#### **I. Background**

The three objectives of the workshop were to:

- 1) Exchange experiences on implemented environmental fiscal reforms (EFR) in Asia;
- 2) Share ideas on possible future EFR; and
- 3) Introduce the participants to an EFR training manual recently developed by GTZ.

The workshop was attended by approximately 30 participants representing various ministries in Bhutan, Lao PDR, Nepal and Thailand, as well as Green Budget Germany, South Asian Network for Development and Environmental Economics (SANDEE), The Energy and Resources Institute (TERI), Greater Mekong Subregion Environment Operations Center (GMS EOC), the Asian Development Bank, GTZ, UNESCAP, UNDP and UNEP. The workshop was jointly organized by GTZ and the UNDP/UNEP Regional Poverty Environment Initiative (PEI) Team.

The list of participants is provided in Annex I. Workshop agenda is provided in Annex II.

#### **II. Next steps**

- ADB, UNDP-UNEP PEI, GTZ and Green Budget Germany can provide technical and financial EFR-related assistance. At this stage, Lao PDR requires support in conducting nation-wide assessments on the level and quality of its natural resources, while Nepal needs assistance in its ongoing fiscal decentralisation process. The possibility of collaboration with these and other countries will be explored further.
- A number of components of the new GTZ EFR Training Manual were introduced to the participants of the workshop and were found useful. GTZ will therefore continue to disseminate the manual to policy makers and NGOs in the region.
- Countries will continue efforts to develop and implement EFR to suit their different national contexts.
- Given the feedback, the participants found the sharing of EFR experiences useful. It is therefore envisaged that similar workshops will be held in the future.

#### **III. General findings**

EFR in Asia

- Environmental challenges vary between countries. These include, *inter alia*, excessive solid waste and low resource efficiency in small and medium enterprises in India, contamination of groundwater in Lao PDR, and shortage of drinking water in Bhutan. Environmental fiscal tools (such as the proposed water pollution tax in Thailand) can address these problems, whilst simultaneously providing additional government revenue.
- EFR are at various stages of development in different countries in Asia. Viet Nam and Thailand are in the process of implementing wide-reaching EFR legislations. On the other hand, the EFR process has not yet commenced or is only about to start in Bhutan, India, Lao PDR and Nepal.

#### Choosing the right measures

- Governments must ensure that the overall net social, economic and environmental benefits of EFR are optimised. EFR often entail environmental and economic trade-offs (e.g. a higher cost of kerosene for households in Viet Nam as a result of the proposed energy tax). However, there are also possibilities for complementarities (e.g. creating extra employment by promoting recycling in India). Assessing all impacts is crucial in selecting the best measure.
- Governments must also ensure that the poorest segments of the society are protected against the negative impact of EFR. This can be achieved by, for example, excluding items disproportionately used by the poor from taxation, as witnessed in Viet Nam’s decision to not tax nitrogen (which would raise the price of fertiliser). An alternative option is providing targeted income transfers or other kinds of compensation schemes, although these can be difficult and expensive to administer.
- Investment (particularly foreign investment) is important in sustaining economic growth in developing countries. Putting extra costs on investors may result in capital flight. Hence EFR “sticks” (such as higher taxes and more stringent regulations) should be complimented with EFR “carrots” (such as tax cuts for import and use of green technologies).
- Governments must ensure that EFR complement, rather than clash with existing policies and institutional arrangements. When choosing EFR tools, governments should review which measures have worked in the past (both domestically and overseas).
- EFR is not a substitute for adequate environmental regulation and enforcement thereof. For example, environmental problems in Lao PDR stem from inadequate law enforcement by local authorities, due to lack of human and financial resources, lack of political will, and corruption. These problems cannot be solved by EFR measures.

#### Implementing the measures

- Ensuring proper implementation of EFR is just as important as choosing the right fiscal instrument.
- Corruption (such as companies paying of EPA officials in India’s water sector) must be addressed.
- Agencies implementing EFR measures need the resources and incentives to do the job well. This can be achieved by including them in the policy-making process and providing them with shares of the collected revenue. The option of tying the levels of transfers to the LG’s economic performance should also be explored.
- “Earmarked” funds for pro-environment activities (as proposed in Thailand) should fund both private-sector and public-sector initiatives. Administration of such funds often involves political struggles between ministries. If staff of non-finance ministries lack sufficient skills in managing such funding, they should receive the necessary training.
- Taxpayers’ compliance with and support for EFR depend on their understanding of why the measures are being introduced, what the revenues will be used for, and the overall social, economic and environmental impact. This requires transparency in the collection and use of EFR revenue, and effective communication with the public.

## **IV. Country-specific findings**

As part of their introduction to the GTZ EFR Training Manual, participants identified environmental problems in their home country, proposed EFR solutions, and identified the likely impacts of proposed solutions. The findings are summarised in a table below.

Country	Environmental problems	Selected EFR measures for analysis	Impacts of proposed EFR measures
Bhutan	<ul style="list-style-type: none"> <li>- Shortage of drinking water (due to ineffective user fees)</li> <li>- Potential negative impacts of future expansion of the hydropower industry (including shortage of drinking water, loss of biodiversity and landscape beauty, and damage to heritage sites)</li> </ul>	<p>Proposed Payment for Ecosystem Services (PES) scheme for watershed management. PES to be funded through new water source protection fees, to be collected by municipal governments. Proposed services include:</p> <ul style="list-style-type: none"> <li>- Controlling human and cattle use of critical areas</li> <li>- Using natural basins and waterholes to store excess water during wet season to supplement stream flow</li> <li>- Temporary grazing prohibitions, restriction of resource extraction and replanting of native tree species</li> </ul>	<p>Improved water quality and quantity, due to:</p> <ul style="list-style-type: none"> <li>- Protection of wetlands located in community forest</li> <li>- Increase in-situ water storage and infiltration</li> <li>- Rehabilitation and reforestation of degraded sites within the sub-catchment areas</li> </ul>
India	<ul style="list-style-type: none"> <li>- Inadequate solid waste management, resulting in huge levels of uncollected waste and overflowing dumpsites</li> </ul>	<ul style="list-style-type: none"> <li>- Progressive user charges, to be collected directly or indirectly (e.g. through water and electricity taxes)</li> </ul>	<ul style="list-style-type: none"> <li>- Reduction of uncollected waste</li> <li>- Elimination of overflowing dumpsites, with positive health impacts on nearby communities</li> <li>- Reduction of scavenging</li> <li>- Increased government revenue</li> <li>- Increased employment (by providing an incentive to collect goods for recycling)</li> </ul>
Lao PDR	<ul style="list-style-type: none"> <li>- Contamination of ground water (via discharge of chemicals such as cyanide, pesticides and herbicides) by commercial agriculture and mining, with negative impacts on rural communities and ecosystems</li> <li>- Deforestation and associated loss of ecosystem services (such as access to non-timber forest products) for rural communities</li> </ul>	<ul style="list-style-type: none"> <li>- Inclusion of “proper pricing” of environmental impacts as a clause in all large-scale mining and agriculture contracts</li> <li>- Fiscal incentives to attract “quality” investment (e.g. investment which creates links with local suppliers, local job creation, use of clean and efficient technologies, knowledge and technology transfers, CSR)</li> </ul>	<ul style="list-style-type: none"> <li>- Improved environmental, social and economic outcomes due to increases in “quality” investment (e.g. improved health indicators due to reduction in water contamination, higher employment, links with local suppliers)</li> <li>- Possible reduction in investment flows due to more stringent contract negotiation (with consequent reduction in government revenue and employment)</li> <li>- Possible problems with EFR implementation due to overstretched government resources and capacity</li> </ul>
Nepal	<ul style="list-style-type: none"> <li>- Deterioration of roads, driven by the expansion of sand, stones and boulders extraction industry (as materials are transported to India via trucks).</li> <li>- Deaths and injuries</li> </ul>	<ul style="list-style-type: none"> <li>- Taxes and other charges should be revised to reflect market prices and the cost of extraction</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation could be a challenge, as existing investors have vocally opposed any tax increases</li> </ul>

	caused by widespread illegal mining		
Thailand	- Water pollution	- Water pollution tax. The tax rate would vary on the quantity of discharge and the type of pollutant. The revenue would be shared between an environment fund (with a set of environmental objectives) and local authorities.	- Improved water quality for downstream communities - Improved funding for local authorities - Negative impact on sugar, beer, construction, retail and hospitality industries, and hospitals - Imposing the tax on households would have a negative effect on urban poor. Consequently, this option is still being debated
Viet Nam	- Over-consumption of energy, and consequent air, noise and solid waste pollution	- New Environmental Tax Law (taxing energy consumption). The law introduces taxes on various fuels (gas, diesel, coal, etc), hydrochlorofluorocarbons, soft plastic bags and numerous chemical substances. Taxes will be imposed on physical units of consumption, rather than prices.	- Increase in government consumption and a decrease in private consumption of fuel - Increased revenue for municipalities (to be used to support cleaner technologies) - Negative impact on the income of the poor. This will be negated via proposed targeted income support and zero tax on nitrogen (which would have had a disproportionately negative impact on the poor by raising the price of fertiliser) - Negative economic impact on crude oil, mining, oil refining, fisheries and transport sectors - The implementation of the law is likely to be a challenge. The government is trying to pre-empt this by providing training to relevant officials and liaising with the media

### Bhutan

- Hydropower is a potential source of economic growth and government revenue. However, the industry has a potentially negative effect on the quality of drinking water, biodiversity, landscape beauty and heritage sites.
- Mining is another major sector. Whilst mining regulations exist, compliance is not adequately monitored.
- Municipalities have the responsibility to collect water fees. However, these fees have been ineffective in reducing consumption, resulting in a shortage of drinking water.
- Bhutan does not yet have environment taxes; the closest thing is royalties on timber. Future environmental taxes will be piloted first, and then up-scaled.

### India

- India has a long list of environmental concerns – solid waste management, wasteful resource use in small and medium enterprises, air pollution, wastage of water (due to lack of adequate pricing).
- Solid waste collection is provided by municipalities, but they lack financial support from higher levels of government. On the supply side, there is a lack of incentives for consumers and governments to reduce waste generation. As a result, India is experiencing huge levels of uncollected waste, with negative impact on people living next to overflowing dumpsites and widespread scavenging.
- The government should aim for improved waste management with full cost recovery. Progressive user charges, which can be collected directly or indirectly (e.g. through water and electricity

taxes), are a tool to be considered. Apart from environmental impacts, this measure can generate government revenue and increase employment (by providing an incentive to collect goods for recycling).

- India is also currently looking into EFR options with regard to water management, resource efficiency in small and medium enterprises and a reform of kerosene subsidies.

#### Lao PDR

- The mining sector is a major contributor to both economic growth and environmental degradation. Its main environmental impact is contamination of ground water, with negative effects on local communities and ecosystems.
- Water contamination is caused by lack of enforcement of relevant regulations. Local authorities are responsible for ensuring investor compliance, but generally fail to do so due to lack of human and financial resources, lack of political will, and corruption.
- Apart from mining royalties, large-scale mining investors are encouraged to pay a lump sum into the Environmental Protection Fund during the project approval process. However, this contribution is voluntary. Furthermore, money is collected by the Ministry of Finance and is not distributed to other ministries. Consequently, environmental authorities (such as the Water Resource and Environment Administration) are under-funded.
- A clause in mining concession contracts for post-mining environmental rehabilitation fees. However, the fees are negotiable.
- The government is under pressure from ENGOs to address environmental impacts of mining. The option of using earmarked funds to address these problems should be explored.

#### Nepal

- Local governments have the authority to tax extraction of sand, stones and boulders. Driven by demand from India, this industry has become economically significant in recent years.
- Whilst providing significant government revenue, the industry is contributing to deterioration of Nepal's roads and bridges (as materials are transported to India via trucks). Illegal mining is widespread, resulting in deaths and injuries due to lack of safety procedures.
- The major cause of these outcomes is poor implementation of environmental regulations. This responsibility lies solely with District Development Committees (DDCs), which lack the required financial and technical resources. In addition, DDC officials are appointed by the central government, making them less accountable to local communities. There is also ongoing political conflict between local governments that have access to these materials and those that don't.
- The government should pursue economically and environmentally sustainable extraction of these materials. This will require involvement of all levels of government (not just DDCs).
- Illegal mining should be eradicated. In terms of impact, this will result in fewer accidents. It will decrease the supply of materials to the construction industry (hence raising its operating costs), but is likely to increase the quality of materials supplied.
- Taxes and other charges should be revised to reflect market prices and the cost of extraction. However, existing investors have vocally opposed any tax increases.

#### Thailand

- Thailand is experiencing environmental degradation, the social cost of which is rising. In response, the Thai government's annual spending on environmental problems and public health is increasing. To date, the emphasis has been on command-and-control measures, but now the government is looking to make use of market instruments.
- The draft Fiscal Measures for the Environment Law is a broad framework law targeting pollution, primarily through taxes. Ministries will be responsible for designing relevant subordinate legislation. The proposed water pollution tax (to be collected by the Excise Department of Ministry of Finance) is an example of such measure. The tax rate would vary on the quantity of discharge and the type of pollutant. The revenue would be shared between a new environment fund (with a set of environmental objectives) and local authorities.

- It is envisaged that the initial tax rate will be set low, and gradually increased. The likely benefits include an improved environment for downstream communities, and improved funding for local authorities. Sugar, beer, construction, retail and hospitality industries, and hospitals<sup>1</sup> will be negatively affected by the tax.
- In terms of political support, local governments will support the measure because it will boost their budgets. The response from national politicians will vary, pending on their affiliation with affected industries. Interestingly, some industries have expressed their support, perhaps in hope that the measure would boost their corporate social responsibility (CSR) credentials. ENGOs would undoubtedly support the measure.
- Imposing the tax on households would have a negative effect on urban poor. Consequently, this option is still being debated.
- In the near future, the government will be considering introduction of payments for ecosystem services.

### Viet Nam

- Viet Nam's environmental problems include climate change-induced sea level rises, the high rate of traffic-related deaths, and air, noise and solid waste pollution.
- The new Environmental Tax Law aims to address these problems by creating incentives for environmentally-friendly behaviour by producers and consumers, whilst simultaneously providing municipalities with better funding to support cleaner technologies
- The drafting of the law commenced in mid-2008, with support from GTZ. Following regional consultations with stakeholders (government officials, NGOs, etc), the draft was approved by the government in March 2010. The law was passed by the National Assembly in November 2010 by a broad majority. This has made it the fastest law-making process in Viet Nam to date (2 years). Sub-ordinate laws will be finalised within 12 months.
- The law will tax energy consumption – primarily because it is easy to administer than, for example, taxing carbon emissions – of various fuels (gas, diesel, coal, etc). It will also introduce taxes on hydrochlorofluorocarbons (HCFCs)<sup>2</sup>, soft plastic bags and numerous chemical substances. Taxes will be imposed on physical units of consumption, rather than prices.
- According to an ex-ante impact analysis, the law will lead to an increase in government consumption and a decrease in private consumption of fuel. Crude oil, mining, oil refining, fisheries and transport sectors will be negatively affected by the new taxes.
- The law will not include a nitrogen tax, which would have had a disproportionately negative impact on the poor (by raising the price of fertiliser). To further negate the law's impact on the income of the poor, the government is planning to introduce targeted income support (although the details of this have not yet been finalised).
- It is likely that the implementation of the law will be a challenge. The government is trying to pre-empt this by providing training to relevant officials and liaising with the media.

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<sup>1</sup> It is envisaged that the hospitals will pass the cost to the public via increased hospital fees.

<sup>2</sup> It is envisaged that HCFCs will be banned in the future, with taxes permitting a smooth phase-out.

## ANNEX I – LIST OF PARTICIPANTS

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## ANNEX II – WORKSHOP AGENDA

8.30 Registration

**09:00 Welcome and opening of the Workshop: GTZ and UNDP/UNEP (PEI)  
Introduction to Environmental Fiscal Reform**

**09:30 Agenda setting & policy development: Environmental Taxes and Benefit Sharing**

- Case work from EFR Training on agenda setting/policy development
- **India (The Energy and Resources Institute, TERI):** Stakeholder management in decentralized jurisdictions
- **Viet Nam, (GTZ expert, Ministry of Finance):** Environment fiscal reform process for the introduction of an environmental tax law
- Joint discussion

11:00 Break

**11:15 Managing diverse stakeholder interests: Implementing Environmental Taxes and Charges**

- Case work from EFR Training on stakeholder concerns
- **Bhutan (Ministry of Agriculture and Tax Administration):** Payments and benefit sharing for natural resources - watersheds, hydropower and tourism
- **Thailand, (Ministry of Finance and Trade/Agriculture Ministry):** Managing environmental and social impacts of agricultural subsidies
- Joint discussion

13:00 Lunch

**14:00 Dealing with stakeholder opposition: Reforming taxes and subsidies**

- Case work from EFR Training on stakeholders and policy reforms
- **Nepal (Ministry of Local Development):** Natural resource taxes at local government level
- **Lao PDR (Ministry of Planning and Investment):** Social and environmental impacts of investment fiscal incentives and charges
- Joint discussion

16.00 Break

**16.15 Ways forward to promote implementation**

- Overview of further available training material
- Identification of further technical support and lesson learning (ADB, ESCAP, GTZ, UNDP/UNEP)

17:30 End of Workshop