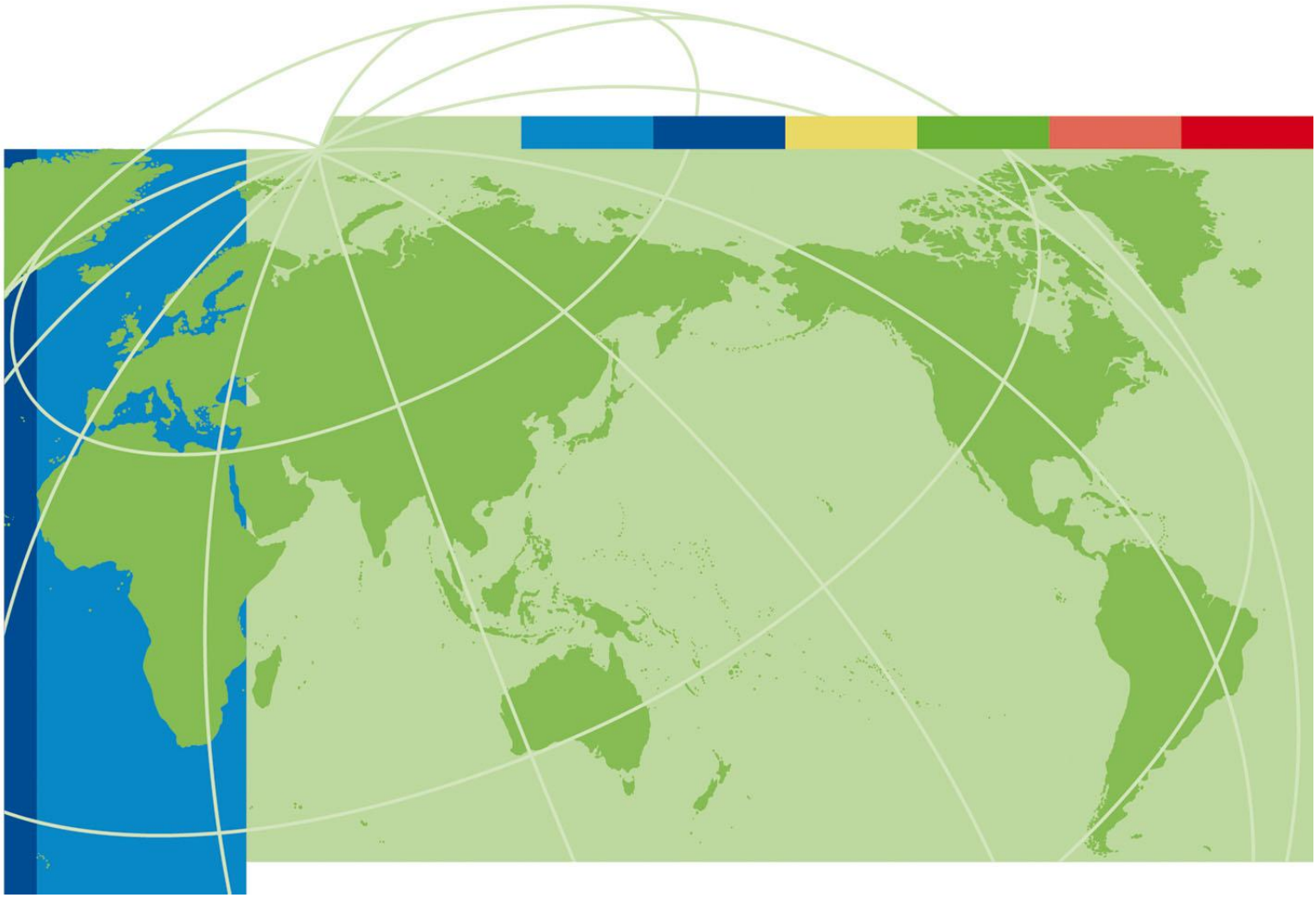


Environmental Fiscal Reform

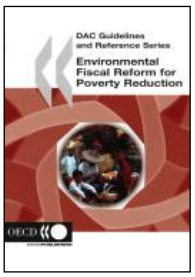
A Practice-Orientated Training for Policy Makers,

Administration Officials, Consultants and NGO Representatives

TRAINING MANUAL FOR PARTICIPANTS

@ the GGKP Asia Practitioners Workshop

Bogor, 4th of June 2013



This Training is based on the OECD Development Assistance Committee (DAC) Guidelines: Environmental Fiscal Reform for Poverty Reduction, Paris 2005. Download: http://www.oecd.org/

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Content of the Manual

Conceptual Background and Objectives of the Training

Background to Environmental Fiscal Reform

Alleviating poverty and achieving economic development whilst safeguarding our environment is a major challenge. In order to achieve success, the choice of instrument is crucial. Market-based instruments (MBIs) have been increasingly applied in the last two decades, as they have proven to lead to efficient environmental protection, to trigger innovation, and possibly create revenues which could be – at least partially – used for poverty reduction.

Environmental Fiscal Reform" (EFR) has emerged as a most promising set of policy tools in this context, as it corrects price signals within the economy to include environmental and other costs and reforms fiscal policy so that the tax system takes environmental criteria into account.

An OECD report published in 2005 – "Environmental Fiscal Reform for Poverty Reduction" – provides a useful brief definition of EFR: "A range of taxation and pricing measures which can raise fiscal revenues while promoting environmental goals".

The European Environment Agency (EEA) provides a more detailed definition. "Environmental Tax Reform (ETR) refers to a reform of the national tax system where there is a shift of the burden of taxation from conventional taxes, for example on labour, to environmentally damaging activities, such as resource use or pollution. The burden of taxes should fall more on 'bads' than 'goods' so that appropriate signals are given to consumers and producers and the tax burdens across the economy are better distributed from a sustainable development perspective. The economic rationale is that welfare gains are generated by reducing taxes on labour or capital and increasing taxes on externalities and hence helping to avoid 'welfare-reducing' activities. A typical case is an increase in the tax on energy, and a simultaneous reduction in labour taxes or social security contributions. Environmental Fiscal Reform (EFR) is a broader approach, which focuses not just on shifting taxes and tax burdens, but also on reforming economically motivated subsidies, some of which are harmful to the environment and may have outlived their rationale" (EEA 2005).

EFR encompasses a large number of economic and fiscal instruments, including for example, taxes/charges on natural resource use, on emissions and effluents, or products which are environmentally harmful; customs/import duties on environmentally harmful products; tax and duty incentives on environmental technologies; certificate or allowance trading; various types of financial support for environmental investment (investment grants, interest subsidies, soft loans, equity investment, etc,); and a wide range of measures aimed at reforming environmentally harmful subsidies.

Revenues raised by means of these instruments may be combined with various measures targeted towards reducing taxes on labour, consumption or social security contributions, as is the case for "environmental tax reform", otherwise known as a "green tax shift". Revenues may also be used to cover the cost of tax administration and enforcement, to compensate tax payers, for environmental clean-up, for poverty alleviation or green investment, or simply be channelled into the general budget.

The implementation of EFR can have **four major benefits**:

Environmental

If designed properly, EFR can address environmental problems in a cost effective manner and may also reduce environmental threats to the livelihoods and health of the poor. EFR also improves the resource efficiency of the targeted economic sectors leading to a more sustainable use of natural resources in the longer term.

Economic

If implemented properly, EFR allows for the achievement of environmental policy goals in a more cost-efficient manner than traditional regulatory approaches. EFR can also reduce distortions in the economy by internalising external costs incurred as a result of the consumption of (scarce) resources. EFR can also trigger innovation and modernization (incl. technology transfer), free up economic resources, and/or generate revenues that can be used for the general budget or earmarked for environmental or poverty alleviation related investment.

Social

EFR can help reduce negative environmental impacts, especially on poor and other vulnerable groups, and finance poverty alleviation related investment, such as access of the poor to water, sanitation and electricity. Revenues generated by an EFR can also be used to reduce ancillary wage costs or income taxes, thus reducing overall labour costs and boosting employment

Structural

EFR can be designed in such a way that it contributes to good governance. If EFR instruments are designed to be applied cost-efficiently, involve relevant stakeholders during the design process, and are effectively enforced, this can result in enhanced transparency and accountability.

EFR instruments have the potential to make a significant contribution to the implementation of the decisions taken at the United Nations Conference on Sustainable Development in Rio de Janeiro 2012 (the so-called Rio+20 summit). The political outcome document acknowledged “green economy in the context of sustainable development and poverty eradication as one of the important tools available for achieving sustainable development” (article 56). Furthermore, the proposed development of Sustainable Development Goals, which will build on the MDGs and guide global sustainable development post-2015, will also set out to explicitly address the role of environment in development.

EFR is also an important concept for putting in practice the various sectoral chapters of Agenda 21 – a result of the United Nations Conference on Environment and Development 1992 – as well as the decisions of the World Summit for Sustainable Development 2002 in Johannesburg, and the subsequent Marrakech process on Sustainable Consumption and Production

Moreover, the international community has committed itself to the Millennium Development Goals (MDGs), including the overarching target of halving extreme poverty by the year 2015. To help achieve the MDGs, developing country governments need to mobilise revenues to invest in schools, health care, infrastructure and the environment. EFR can play an important role in pursuing the MDGs of "halving absolute poverty" and of "reversing the loss of environmental resources by the year 2015". Indeed, the United Nations Summit on Financing for Development and on Sustainable Development in 2002 recognised the potential contribution of EFR-related approaches. The latter stressed that poverty reduction and improved environmental management go hand-in-hand and confirmed the importance of market-based instruments in its official report. As a general rule, EFR instruments should be thought of components of fiscal and environmental policy package mixes, not as "stand alone" policy instruments.

In 2005, the Organisation for Economic Co-operation and Development/Development Assistance Committee (OECD/DAC) through its Network on Development Co-operation and Environment (ENVIRONET) published the DAC Guidelines and Reference Series "Environmental Fiscal Reform for Poverty Reduction". This document is one important reference work which can be used to assess progress and impacts in designing and implementing EFR in developing, emerging and transition economies.

Participants of the 8th Global Conference on Environmental Taxation (GCET), 18-20 October 2007, within the framework of which the BMZ/GIZ hosted a Special Workshop on "Environmental Fiscal Reform in Developing, Emerging and Transition Economies", stressed the need both for long term financial support and for capacity development in the context of EFR. Conference participants included policy-makers working in the fields of both public finance and environment in developing, emerging and transition economies academics, persons working at community level (in politics and the administration), for NGOs, and development and implementing agencies.

OECD/DAC has also highlighted the importance of capacity development, recognising that it is a fundamental component of development cooperation and aid effectiveness and a key element in achieving the Millennium Development Goals (MDGs) through its Guidelines "The challenge of capacity development" published in 2006.

More recently, a number of new and important initiatives have been launched on international level, including: the UN CSD's development of Sustainable Development Goals for the post-2015 development agenda; OECD's Green Growth Strategy; UNEP's Green Economy Initiative; UNESCAP's policy focus on green growth in the Asia and Pacific region, the European Union's Environmental Technology Action Plans (ETAPs) and measures to increase Sustainable Consumption and Production

In the context of all these initiatives and processes, EFR and EFR instruments are very relevant and can be expected to play a prominent role. Indeed, EFR is one of the most important policy tools for the realisation of a green economy and the achievement of environmentally sustainable development.

In view of the above, and in order to foster capacity development in the increasingly important nexus between fiscal/economic and environmental policy, this training programme on EFR in developing, emerging and transition economies has been developed by GIZ and GBG. It seeks to

cultivate discussions on EFR elements in partner countries and to serve as “kick-off” for mid- to long-term EFR related processes and the concrete application of EFR instruments.

Objectives of the Environmental Fiscal Reform Training

This EFR training was designed for the **target groups** policy makers, administration officials, consultants, NGO representatives and other relevant stakeholders of developing, emerging and transition economies, as well as representatives of donor agencies or academics interested in promoting or applying EFR, although it might also prove useful for the same target groups in industrialised countries. The training addresses the following issues:

- What is EFR? Which are the main instruments of an EFR, how does each of these instruments work and how could they work together in a coherent way to achieve tangible environmental impacts? What should be taken into consideration in order to realize positive environmental, economic, social and governance impacts?
- When is an EFR needed and when should it be promoted? Which conditions should be fostered to enhance the EFR process?
- How can EFR be effectively promoted? How can “windows of opportunity” to initiate an EFR process be identified and used? How can EFR be linked to relevant problems prevailing in a country?
- What are the principal aspects that make EFR work properly? What are the main challenges? How can they be tackled?
- How can EFR best contribute to effectiveness and efficiency of environmental policy and fiscal sustainability?
- How is EFR embedded in the overall “policy mix”. How does EFR link to national development and economic planning (and, where relevant, to development assistance)?

After discussing these questions throughout the training with the help of presentations, plenary discussions, interactive case study exercises in small teams, and individual reflection on conclusions for one’s own country, as well as elaboration of a personal EFR-Action Plan, participants of the 3-day training on EFR will have achieved the following **objectives:**

- Participants understand the definitions, concepts, and instruments of EFR
- Participants are able to apply this know-how to their own country / institution
- Participants are able to start implementing this know-how within their own sphere of influence after the training with the help of the personal Action Plan.

The achievement of these objectives can be measured by the following **success indicators**:

- Participants evaluate the EFR training positively (see evaluation sheet)
- Working documents (flipcharts, cards, etc.) show that participants have participated actively and have understood the messages of the training (see photo-documentation and documentation formats)
- Participants have elaborated during the training an Action Plan that indicates clear further steps to be taken subsequent to the training (see Action Plans)
- 50 % of the participants apply their Action Plan / have started the application of their
- Action Plan 3 months after the training (evaluated by means of either written feedback or network follow-up meeting)

Overview: Financing Instruments and Mechanisms for the Environment

The diagram below provides an overview of the broad spectrum of financing instruments and mechanisms in the environmental field. GIZ's focus within the Environmental Finance concept is on financing approaches that pursue both functions - incentive and financing - and are therefore directly linked to resource use. Priority is given to the mobilisation of domestic revenues, both local and national, through market-based instruments (illustrated in the upper section). These instruments can be applied together with financing mechanisms in order to allocate and administrate funds efficiently (blue circle). It is these instruments that are the focus of this training package.

Appropriate framework conditions must be in place to tap the full potential of environmental financing instruments. Certain financing instruments may not be implemented efficiently or implementation may even fail altogether if policy, institutional or market failures prevail. Therefore, changes in the governance structure can not only foster sustainable resource use but also help to generate funds for conservation in a more effective and efficient manner, while using adequate financing instruments. In this context, Environmental Fiscal Reform in particular can function as a driver of other necessary reforms of the environmental governance structure.

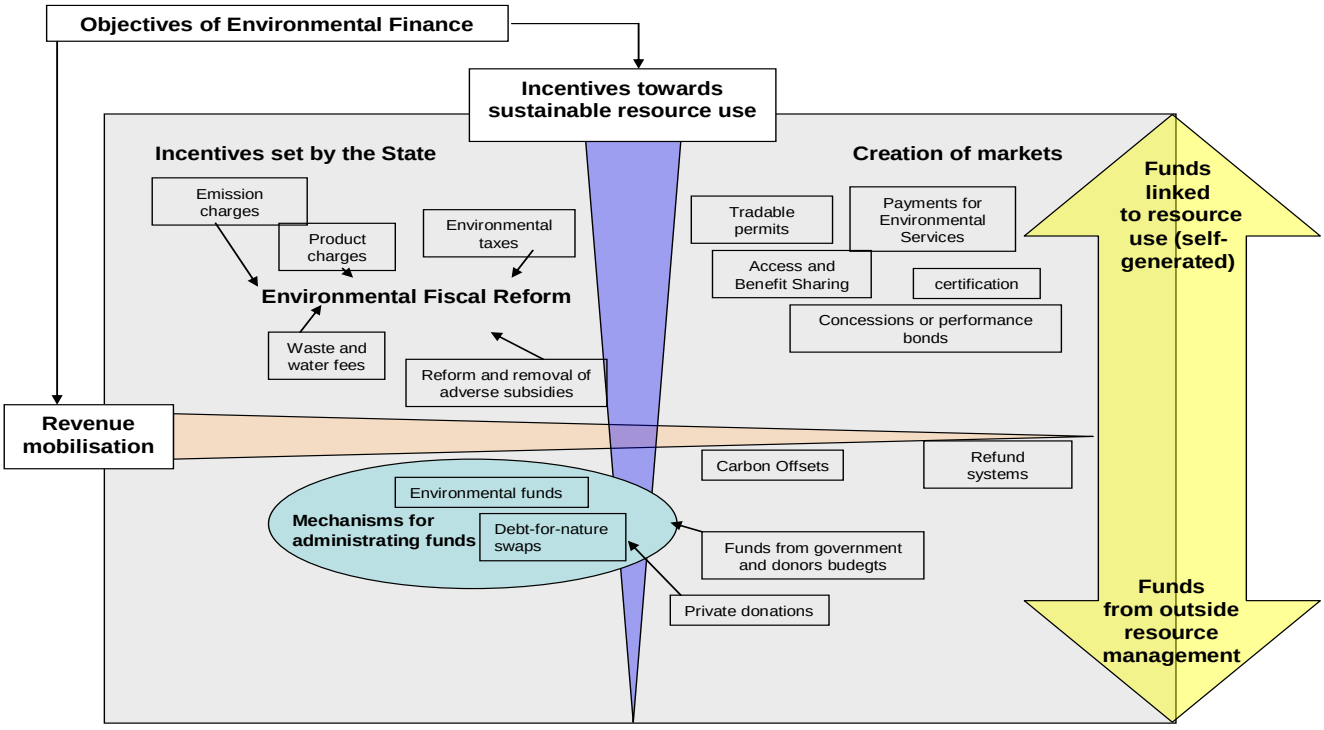


Diagram based on Emerton, L. et al. (2006) Sustainable Financing of Protected Areas, IUCN and Fischer, A. / Petersen, L. / Hubbert, W. (2004): Natural Resources and Governance: Incentives for Sustainable Resource Use, GTZ).

Module 0: Opening and Learning Agreement

 **Objectives**

Participants know

- participants, trainers and organisers (who is there?)
- objectives of EFR training (why?)
- programme (what?) and
- working methods and rules (how?)

Trainers

- know expectations of participants and whether they are compatible with offer (objectives and programme)
- have presented and discussed working methods.

 **Duration** *60 min*

 **Structure**

Sociometric exercise, presentations, question & answer sessions

Module 1: Definitions and Concepts of EFR

Session 1-1: Environmental Issues and EFR in your Country

Objectives

- Participants have reflected upon and communicated the actual situation in their respective countries with respect to EFR (to be communicated to all participants).

Duration *90 min*

Structure

Individual / group exercise and plenary session

Instructions

Please reflect on the following questions:

1. What are the major environmental problems and challenges your country / your institution / your sector is facing?

2. Which stakeholders are affected by these environmental problems and in which way?

3. What are your ideas about the causes of these problems and their impacts?

4. Have any EFR measures been implemented in your country?
   - If yes, which instruments have been used?

Have they been successful? Why? Do you know of any shortcomings?

If EFR instruments have not been implemented, do you know why not?

Please visualise your reflections directly on the flipchart / cards

Plenary session: There will be a plenary presentation / discussion of results

.

Session 1-2: Introduction to EFR: definitions and concepts

 **Objectives**

The participants have a sound knowledge of the definitions and concepts of EFR including:

- the theoretical background to EFR
- applicability of EFR to environmental problems
- advantages and disadvantages of the EFR approach

 **Duration** *60 min*

 **Structure**

1- Presentation ppt: Introduction to EFR: Definitions and Concepts *(30 min)*
2- Question and Answer Session *(30 min)*

Module 2: EFR instruments and the EFR Policy Cycle

Gothland 2-1: Application of EFR instruments and the EFR Policy Cycle to the Case of Industrial Pollution in Gothland-1

Objectives

Participants are able to practically apply in a systematic way the information on environmental problems, EFR cycle and instruments to a near reality case.

Duration *(90-)***120 min**

Structure of the exercise:

Case study exercise: group work and plenary session.

Training Aids

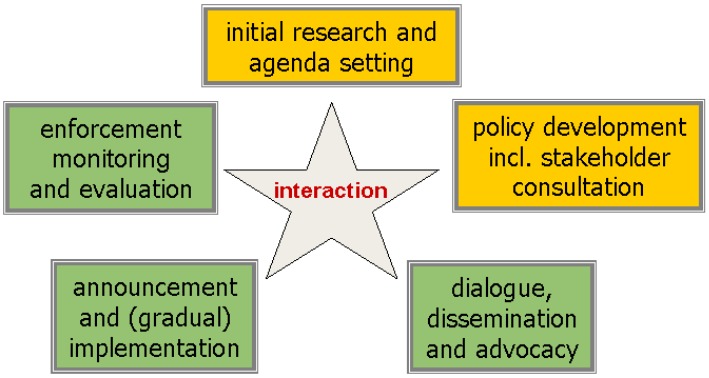
Sheet 1: Agenda Setting and Policy Development

Sheet 2: Case Work Industrial Pollution in Gothland

Sheet 3a + 3b: Agenda Setting and Policy Development - Questions

Sheet 1 – Gothland 2-1 – Agenda Setting and Policy Development

Task



You are working for the research and advisory institution "Green Gothland" which has been commissioned to carry out an analysis of the problem of industrial pollution and to evaluate possible means of reducing it in the country of Gothland.

Researchers/advisors at the institution have decided to hold a meeting to discuss possible methods of combating industrial pollution in the country, to evaluate and discuss the advantages and disadvantages of each proposal, and to agree on a final proposal of measures you will present to your client.

Instructions

Read the background information on industrial pollution in Gothland carefully.

Establish a research team of 4 – 6 persons (form teams composed of persons coming from different institutions).

Discuss the information received with your team and complete Sheet 3a and 3b.

Visualise your results on a flipchart, at least for those questions / boxes attributed to your team by the trainer, so that those results can be presented in plenary.

Presentation and discussion of results will take place in a plenary session after the group work: for this you should select a presenter in your team.

Sheet 2 - Case Work Industrial Pollution in Gothland

Background information: Gothland

Gothland is a (fictional) developing country undergoing a period of rapid growth and industrialisation.

Gothland is a low-income country and a parliamentary democracy with universal suffrage. It has a population of approximately 14 million, and a total area of 41,000 km^2. Gothland's urban areas have very high population densities. The urban poor tend to live in informal settlements towards the edge of the country's three largest cities, all with populations over or approaching 1 million. Many do not have access to electricity supplies. Over the past few years, economic growth has been accompanied by the development of an urban middle class, who enjoy relatively cheap electricity supplies to their homes. Electricity is currently not subject to taxation.

Gothland has large coal reserves, as well as tin and copper ore. Almost 90% of Gothland's electricity is generated using coal. Gothland is a net exporter of electricity.

GDP growth in Gothland began to increase rapidly in 2003, peaking at 8% per annum by 2007, before falling slightly following the global financial crisis. GDP for 2012 amounted to about US$8billion. Total tax revenues amount to about 22% of GDP. GDP growth is based on expansion in the paper processing, chemicals and manufacturing sectors. A growing middle class has stimulated considerable growth in the service industry. This economic boom has had a significant impact on environmental quality.

The single most important environmental problem in Gothland is air pollution from the 10 private-sector owned coal-fired power stations. Electricity generation was privatised in the early 1980s, but poor regulation, inadequate management practices and insufficient investment to "clean up" power generation has been a major problem ever since. One reason for the lack of investment within the sector is a general reluctance to increase electricity prices. This reluctance has been supported by successive governments, which have subsidised power generation to keep prices at artificially low-levels, below cost coverage. In turn, this has meant that power generation companies are unable to raise sufficient funds to invest e.g. in reducing emissions.

Thus, electricity generation from coal relies on old, dirty and relatively inefficient technology. Although the Clean Air Act of 1997 introduced a regulatory framework for the monitoring of emissions from coal-fired power stations and set an upper limit on sulphur dioxide (SO_2) emissions per kilowatt (kW) of electricity generated, this has been poorly enforced. Monitoring equipment is in many cases faulty, the enforcement agency – the National Agency for Health and Environment (NAHE) is severely underfunded, their agents are poorly paid, badly trained and often bribed to record SO_2 emissions incorrectly, or not record them at all. Successive governments have not developed an effective response to this problem.

Air pollution has increased since Gothland's economic boom, because new paper and chemicals factories and increased manufacturing of textiles, beverages and low-tech consumer goods have increased electricity demand by almost 40% over the past 10 years. Major pollutants emitted include SO_2, nitrogen oxides (NO_X), particulate matter, hydrocarbons and carbon dioxides

(CO_2).

Studies have revealed that coal-fired power plants in Gothland are responsible for about 50% of all SO_2 emissions. Mobile sources (vehicle emissions) account for about 20% of emissions, and fossil fuels used in industrial processes and households each account for about 15% of total emissions.

Reducing SO_2 emissions will also result in reduced particulate emissions, as SO_2 is a precursor to the formulation of particulates, and, depending on the technology used, will also result in reduced NO_X emissions as well (see technologies below for details).

Expectations among the general population that the government must take action to tackle the problem are on the increase. Air quality in residential areas located close to coal power plants and largely inhabited by the urban poor has been deteriorating. Human health is seriously affected. The incidence of respiratory disease has increased by as much as 25% in some urban areas in the last ten years, and it is estimated that as many as 1,000 premature deaths a year may be attributable to air pollution from coal-fired power stations.

Air pollution has also caused acidification of lakes and soils and appears to be impacting on crop productivity and forest growth. Research indicates that ozone and SO_2 emissions are reducing crop yields. A recent study revealed that the a 30% reduction in rice yields in harvests over the past 3 years appears to be related to the presence of pollutants in the air.

Possible methods of dealing with the environmental problem of sulphur dioxide pollution

Reducing sulphur content of coal before combustion e.g. fluidised bed combustion.

= Reduces SO_2 emissions by 95% and reduces NO_X emissions.

= Costs USD 500 to 1,000 / ton sulphur.

Installing flue gas desulphurisation technologies – in effect, 'cleaning' gases emitted during burning (also referred to as wet or dry scrubbing).

= Reduces SO_2 emissions by 80%.

= Costs USD 150 to 500 / ton sulphur.

Increasing efficiency of existing coal-powered power plants, e.g. by using new technologies, to reduce SO2 emissions per Kilowatt hour (kWh) electricity generated

= Maximum SO_2 emissions reductions 40%.

= Costs USD 500 to 1,000 / ton sulphur.

Fuel switching to fuel sources with lower sulphur content, either to renewable energy sources or natural gas, or a combination of both.

= SO_2 emissions reductions vary according to type and degree of shift

= Costs range between USD 100 to 1,000 / ton sulphur.

Implementation and monitoring

All options are relatively easy to monitor by measuring the quantity and quality of coal inputs into power generation plant and relating this with easily available data on the sulphur reduction rates of the technologies described.

Possible EFR measures

Measure	Advantages	Disadvantages
Relatively low tax on SO_2 emissions **100 USD / tonne SO2 equivalent**	Taxes pollutant directly Paid by small pool of emitters on the SO_2 content of fuels (so probably easy to administer) Tax revenues can be earmarked, e.g. for subsidizing related policy goals	If this is a stand-alone measure, it may be difficult for this tax rate to effectively lead to significantly reduced SO_2 emissions Resistance from power industry Political acceptability Competitiveness impacts (electricity exports, higher costs for chemicals & paper industries)
Relatively high tax on SO_2 emissions **500 USD / tonne SO2 equivalent**	Taxes pollutant directly Paid by small pool of emitters on the SO_2 content of fuels (so probably easy to administer) Tax revenues can be earmarked, e.g. for subsidizing related policy goals Strong steering effect as a result of the high tax rate	Political acceptability may be an issue with a tax of this magnitude Resistance from power industry Competitiveness impacts (electricity exports, higher costs for chemicals & paper industries)
Progressive tax on SO2 emissions **150 USD / tonne SO2 equivalent increasing to 550 USD / tonne SO2 equivalent over 5 years**	Taxes pollutant directly Paid by small pool of emitters on the SO_2 content of fuels (so probably easy to administer) Tax revenues can be earmarked, e.g. for subsidizing related policy goals Political acceptability enhanced due to gradual phase-in. Industry has time to respond, certainty of investment climate	There might be a slow response to the initially low tax rate Resistance from power industry Competitiveness impacts (electricity exports, higher costs for chemicals & paper industries)

Tax on electricity	Price signals throughout the economy will incentivise efficiency of electricity use Resistance from stakeholders in electricity generation can be expected to be less, as tax has broader tax base than SO_2 tax In turn, increased revenues can facilitate cost coverage of electricity provision.	Incentive is not specifically to reduce SO_2 emissions – reduction in SO_2 emissions is unlikely to be sufficient Strong resistance from middle classes – is there sufficient Willingness To Pay more for electricity? Tax might decrease competitiveness of energy-intensive industries. Reduced tax rates, exemptions or compensation mechanisms may have to be introduced, which might compromise environmental impacts and lead to market distortions.
Subsidise emission-reducing technology	Power generation industry would support measure Emissions would be reduced and positive impacts on public health achieved - provided that the scheme is implemented properly Technology transfer facilitated, modernization of industry Implementation of environmental policy facilitated	Costly stand-alone policy – how will subsidies be funded? Market distortions, e.g., if market-based finance is effectively crowded out or due to competitiveness advantages of subsidized companies Risk of subsidy dependency - if not designed properly, the subsidy scheme will remain in place even if not needed anymore Unless properly designed, larger extra budgetary subsidy schemes may violate fiscal integrity, thus result in opposition from Ministry of Finance or IMF

Possible regulatory measures

Minimum SO_2 emissions standards	Policy goals will be achieved if standards are enforced Each polluter knows precisely how many emissions need to be reduced to comply Fines for non-compliance could raise revenues for enforcement	Will not create dynamic incentive for change and innovation In general, standards are less economically efficient than economic instruments, i.e. they cost more to achieve the stated policy goals Implementation requires continued strong political will, sound governance and well functioning administrative structures, as standards are vulnerable to corruption
Best Available Technology standards	Policy goals will be achieved if standards are enforced Fines for non-compliance could raise revenues for enforcement and partially cover costs of green subsidies	Will not create dynamic incentive for change and innovation Standards are less economically efficient than economic instruments, i.e. it costs more to achieve stated policy goals Implementation requires continued strong political will, sound governance and well functioning administrative structures, as standards are vulnerable to corruption
A combination of the above?	Complementary measures can address disadvantages of any single instrument	Difficulty to establish a fair, effective and functioning policy mix

Sheet 3a - Table: Agenda Setting

Questions	**Answers / Proposals**
1) What is the main environmental problem of Gothland?	
2) How would you describe its actual impact(s)? (environmental, social, economic, organisational)	.
3) What are the major causes and what stakeholders are involved?	
4) What should the primary policy objective?	

Sheet 3b - Table: Agenda Setting

For questions 5-8 the following table can be used as a blank version and be filled in by participants.
5) What instruments / combination of instruments could achieve this aim?
6) Who would have to implement the policy?
7) What would be the expected effects and on which stakeholders?
8) What other changes might occur as a result of the new policy?

Sheet 3b - Table Agenda Setting / Policy Development

Legend: **(+)** = positive effects **(O)** = neutral effects **(-)** = negative effects **(/)** = no effects (?) do not know

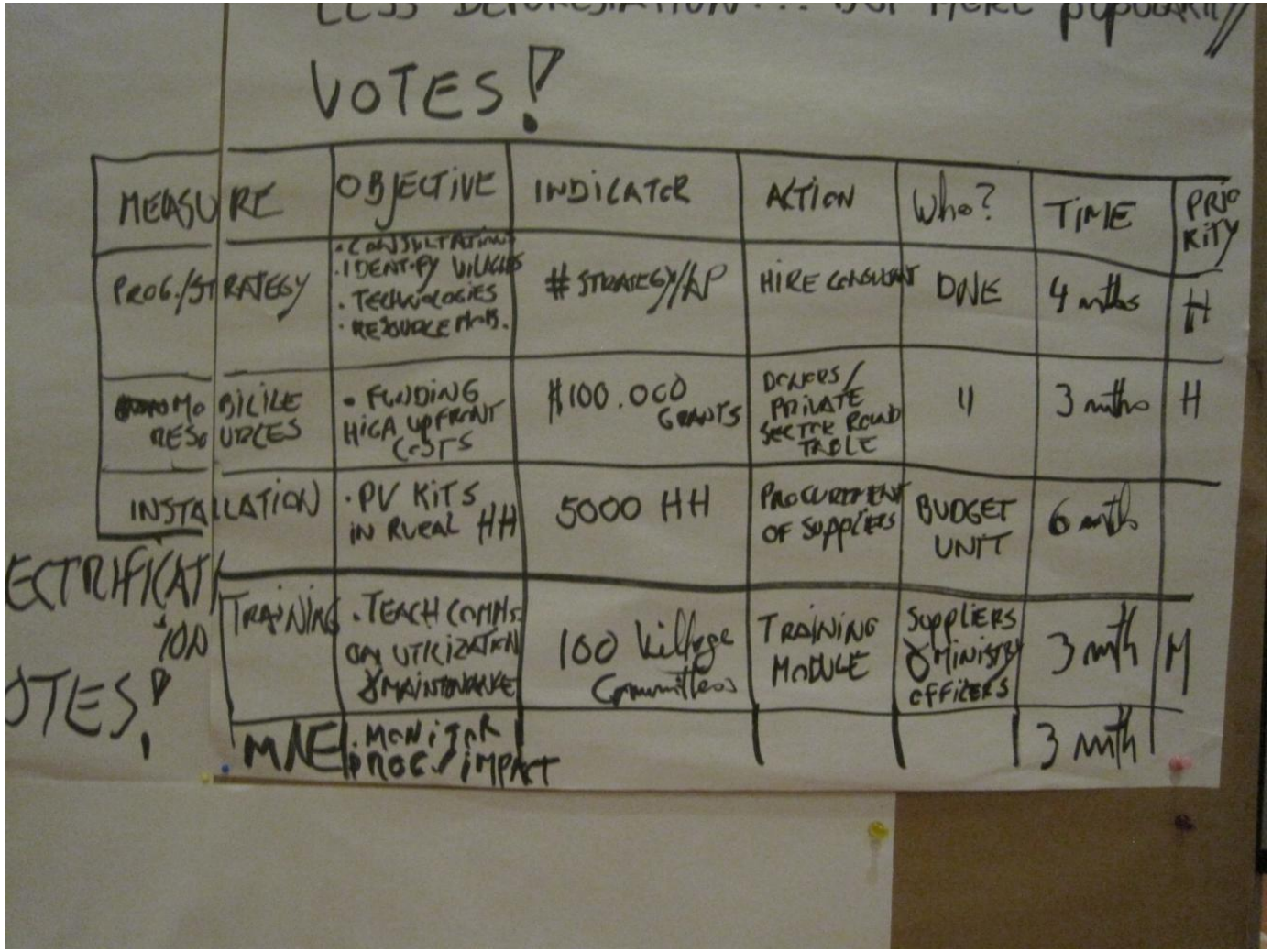
Country	Institution	1 - Measure	2a- Environmental effects	2b- Economic effects	2c- Social effects	2d- Organisational effects	3- Capacity to implement
Goth-land							

Annex 1: Examples of Personal Action Plans

MEASURE	OBJECTIVES	INDICATORS	ACTIONS/ ACTIVITIES	RESPONSIBLE	TIME	PRIORITY
EFR programs	Awareness of EFR and implementation and development of EFR in Malaysian fiscal policies.	▪ EFR seminar ▪ EFR training programs ▪ EFR consultations ▪ EFR specialists.	▪ Collaborate with GIZ/Green Budget Europe to develop Action Plans ▪ Conduct training program – awareness (quarterly) ▪ Conduct program to dedicated group with stated deliverables (yearly)	CDC and GIZ/Green Budget Europe	▪ End June 2012 ▪ Quarterly ▪ Yearly	High
Awareness programs via GreenTech Portal	Awareness of EFR and implementation and development of EFR in Malaysian fiscal policies.	Database and statistics in EFR locally and internationally	▪ Collect data/statistics/policies that relate to EFR and researches in EFR ▪ Develop forum in EFR	CDC and GIZ/Green Budget Europe	Nov 2012	High

Measure	Objectives	Indicators	Actions/ Activities	Responsible	Time	Priority
Impose additional charges on hotel rate of RM 5 per pax (tourist only) 10% of tax revenue to be provided to relevant agents / hotels	To promote Eco-Tourism Industry	Increase traffic of tourists by 10% by 2013	Include nature conservation programmes in tourists vacation package Hotels to use the budget allocated for retrofitting their hotels to adopt GT elements Tax exemption for participated hotels / travel agents Special token for Tourists who contribute to conservation of environment	Ministry of Culture, Arts and Tourism KeTTHA	2012-2013	High
Increase relevant Tax to Workshops for inproper management of tyre waste Impose penalty to Municipal Authorities and Rubbish	Encourage the recycle and proper management of waste tyre	Waste tyre recycling activities become the norm by 2020 Disposal of waste tyre to landfills reduced by 50% by 2015	Policy studies on waste tyre management Formulation of policy and legislation on waste tyre management (come into force) by 2014	Jabatan Pengurusan Sisa Pepejal Negara Department of Environment	2012-2015	Medium

Collectors for disposal of Waste Tyre to landfill			Regulation to ban open burning of tyres Tax break for waste tyre recycling plant Establish a centralized administration and enforcement structure Public awareness programme Enhance programmes to exploit value from waste tyres Creation of incentives for the use of waste tyre recovered materials and to mandate the use of these materials in specified activities			


VOTES!
MEASURE
OBJECTIVE
INDICATOR
ACTION
Who?
TIME
PRIO KITY
PROG./STRATEGY
STRATEGY/AP
HIRE CONSULT
DONE
4 mths
H
MOBILE RESOURCES
FUNDING HIGA UPFRONT COSTS
#100.000 GRANTS
DONORS/ PRIVATE SECTOR ROUND TABLE
11
3 mths
H
INSTALLATION
PV KITS IN RURAL HH
5000 HH
PROCUREMENT OF SUPPLIERS
BUDGET UNIT
6 mths
TRAINING
TEACH COMMS ON UTILIZATION & MAINTENANCE
100 Village Committees
TRAINING MODULE
SUPPLIERS & MINISTRY OFFICERS
3 mth
M
M&E
MONITOR PROC/IMPACT
3 MTH

Annex 2: Abbreviations

ALS	Area licensing System
ACP	African Caribbean Pacific
BMZ	Federal Ministry for Economic Cooperation and Development
BOD	Biological Oxygen Demand
BRT	Bus Rapid Transit
COE	Certificate of Entitlement
CO_2	Carbon dioxide
DAC	Development Assistance Committee
EC	European Commission
EEA	European Environment Agency
EFR	Environmental Fiscal Reform
EHS	Environmental Harmful Subsidies
ELC	Experimental Learning Cycle
ENVIRONET	Network on Development Co-operation and Environment
ERP	Electronic Road Pricing
ETAP	Environmental Technologies Action Plan
ETR	Environmental Taxation Reform
FC	Flipchart
GBG	Forum Ökologisch-Soziale Marktwirtschaft/Green Budget Germany
GCET	8^{th} Global Conference on Environmental Taxation
GDP	Gross Domestic Product
GIZ	German International Cooperation (former German Technical Cooperation GTZ)
kw	Kilowatt

kwh	Kilowatt hour
LPG	Liquid Petroleum Gas/Liquefied Petrol Gas
MDGs	Millennium Development Goals
MoE	Ministry of Environment
MoF	Ministry of Finance
MSEs	Micro- or Small Enterprises
NGO	Non-governmental Organisation
NO_x	Nitrogen oxide
NRT	Natural Resource Tax
OECD	Organisation for Economic Co-operation and Development
PLS	China's Pollution Levy System
PSP	Private Sector Participation
REDD	Reducing Emissions from Deforestation and Degradation
SCP	Sustainable consumption and production
SMEs	Small- and medium-sized enterprises
SO_2	Sulphur dioxide
TNC	The Nature Conservancy
ToT	Training-of-Trainers
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
USD	US-Dollar
VAT	Value Added Tax
VQS	Vehicle Ownership Quota System
WHO	World Health Organisation
WSS	Water Supply and Sanitation Services

Annex 3: Sources & key references on EFR

Sources and Key References on EFR

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http://www.oecd.org/env/environmentalpolicytoolsandevaluation/thepoliticaleconomyofenvironmentallyrelatedtaxes.htm

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http://www.worldecotax.org/downloads/info/documentation_gtz-Workshop.pdf

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http://www.unep.ch/etb/publications/EI%20manual%202009/Training%20Resource%20Manual.pdf

European overview studies from the European Environment Agency (EEA http://www.eea.europa.eu/)
2012-report on environmental tax reform in Europe
http://www.eea.europa.eu/publications/environmental-tax-reform-opportunities/at_download/file
2006-report on market-based instruments in a more popular style:
http://reports.eea.europa.eu/eea_report_2006_1/en
2006-report which is the basis for the one above, but more in-depth:
http://reports.eea.europa.eu/technical_report_2005_8/en
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1996-report on taxes:
http://reports.eea.europa.eu/92-9167-000-6/en
2000-report on taxes:
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Dikgang, Johane et al. 2010: Analysis of the Plastic-Bag Levy in South Africa, Cape Town
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Renewables strategy and targets and potential studies and the most successful Renewable Energy Sources Act (in English):
http://www.bmu.de/english/renewable_energy/general_information/doc/4306.php

Movie (copyright free for translation in other languages – so far German, English)
http://www.bmu.de/english/climate_change/doc/3472.php

Studies on the impacts of the ETR in Germany published in 2004 and 2005
Summary in English:
http://www.ecologic.eu/download/projekte/1850-1899/1879/1879_summary.pdf
and several follow-up studies (on sectoral and on macroeconomic impacts, on innovations (identifying concrete technologies), on entrepreneurs (who are winners), on private households:
http://www.ecologic.eu/1156
http://www.umweltbundesamt.de/umweltoekonomie/index.htm

Summary of the Final Report of the Project: Effects of Germany's Ecological Tax Reforms on the Environment, Employment and Technological Innovation:
www.umweltbundesamt.de/uba-info-presse-e/hintergrund/oekosteuer.pdf

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http://www.bundesfinanzministerium.de/Content/DE/Standardartikel/Themen/Oeffentliche_Finanzen/Subventionspolitik/23-subventionsbericht-der-bundesregierung-anlage1.pdf?__blob=publicationFile&v=3

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www.umweltdaten.de/publikationen/fpdf-l/3896.pdf

Study on the subsidies for lignite (German only):
www.umweltdaten.de/publikationen/fpdf-l/2798.pdf

Other background papers: http://www.umweltbundesamt.de/uba-info-presse/hintergrund/index.htm

Kai Schlegelmilch (ed.): Green Budget Reform in Europe - Countries at the Forefront, Springer, Berlin, 1999: http://www.wupperinst.org/en/info/entwd/index.html?&beitrag_id=50&bid=43&searchart=publikationen_uebersicht

Other GIZ Publications

Sustainable Transport: A Sourcebook for Policy Makers in Developing Cities
Available for download from the GIZ website:
http://star-www.giz.de/dokumente/bib/03-0225.pdf

A number of articles on pricing transport fuel and international transport fuel prices are available under the following links:
http://www.giz.de/Themen/en/29957.htm
http://www.sutp.org/index.php/further-downloads/category/129-fuel-prices

Databases on EFR

The OECD, in cooperation with the European Environment Agency, provide a regularly updated database where all kinds of environmentally related taxes are described, including also links to evaluation studies.
http://www2.oecd.org/ecoinst/queries/index.htm

Hosted by the School of Geography, Planning and Environmental Policy, University College Dublin, the objective of this site is to present, in a non-technical fashion, information on the practical use of economic instruments in environmental policy. It is envisaged that the site will be of interest to policymakers, members of the public, academics and students. The site draws together information that has been published in hard copy format and synthesises it into a searchable database. Rather than merely providing lists of instruments, a key objective of the site is to provide details of instruments in use and, in particular, information on the performance of these instruments.
http://www.economicinstruments.com/index.php

Links to many international and national studies on EFR
http://www.foes.de/publikationen/?lang=en
A number of publications can be purchased at reduced rate at the Green Budget Germany website: http://www.foes.de/publikationen/zur-bestellung/?lang=en

International Institute for Environment and Development (http://www.iied.org/) – provides downloadable papers and books on EFR and related subjects and links for information on national sustainable development strategies. (http://www.earthsummit2002.org/es/national-resources/nssd.html)

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Annex 4: Content of the EFR Training

Introduction
The Policy Cycle of Environmental Fiscal Reform
The Cycle of Change – A Road Map to Implementation

Conceptual Background and Objectives of the Training
Background to Environmental Fiscal Reform
Objectives of the Environmental Fiscal Reform Training

Module 0: Opening and Learning Agreement

Module 1: Definitions and Concepts of EFR
Session 1-1: Environmental Issues and EFR in your Country
Session 1-2: Introduction to EFR: definitions, concepts and instruments

Module 2: Introduction to the EFR Policy Cycle
Session 2-1: Application of Environmental Issues and the EFR Policy Cycle to the Case of Industrial Pollution in Gothland-1
Session 2-2: Conceptual presentation: EFR Instruments and the EFR Policy Cycle
Session 2-3: Application of Environmental Issues and EFR Policy Cycle to Case Industrial Pollution in Gothland-2
Dialogue, Implementation and Enforcement
Analysis of stakeholder concerns
Session 2-4: Identifying and avoiding possible obstacles to the implementation of EFR
Session 2-5: A green investment scheme for Gothland

Module 3: Analysis of the economy and existing EFR instruments
Session 3-1: Analysing the political economy of EFR in your country
Session 3-2: EFR and the Transport Sector in Murundi
Optional: Communication of EFR and Environmental Policy – lessons from around the world

Module 4: Stakeholder Interests in the case of Fossil Fuels and Energy
Session 4-1: Introductory presentation
Session 4-2: Case Work: Dismantling Environmentally Harmful Subsidies in "Nira"

Module 5: EFR for a circular economy and solid waste management
Session 5-1: Introductory Presentation
Session 5-2: Developing economic and financial instruments for waste management in Fulador

Module 6: Application of EFR Learning to own Country
Session 6-1: Preparation of a personal Action Plan
Session 6-2: Follow up and Evaluation

EFR Instruments and Country Examples