



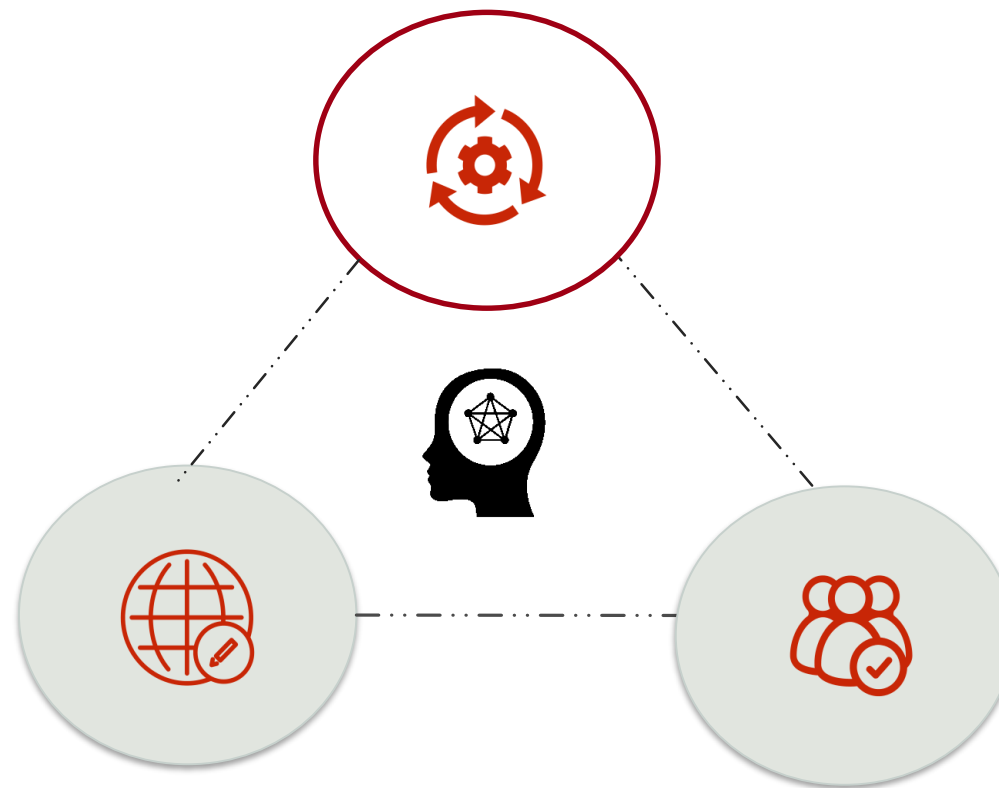
Module 2:
**Policies and Framework
Conditions for Resource
Efficient Usage of
Natural Resources**

The Urban Nexus Guide

The Urban Nexus Guide

Module 2: Planning and implementing the Urban Nexus

Module 1:
Linking Global Agendas
and the Urban Nexus
approach



Module 3:
Governing the
Urban Nexus

Learning Goals



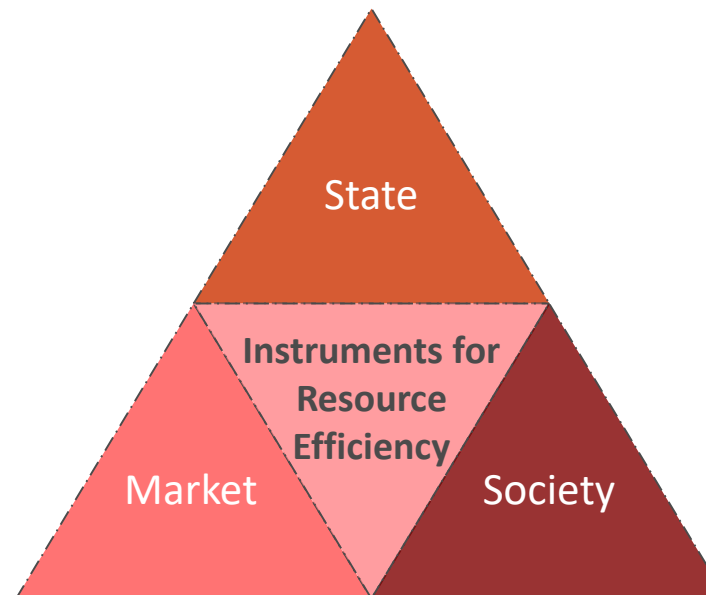
1. Become familiar with different regulatory, economic and information-based instruments that can be employed to incentivize resource efficiency.
2. Understand the advantages and disadvantages of different instruments.
3. Learn about real case study examples where different instruments have been introduced at the national and local level.

Overview of Instruments and Incentives for Resource Efficiency



Regulatory Instruments (Examples)

- Procurement standards
- Building standards
- Wastewater standards



Financial Instruments (Examples)

- Tariffs (Water, Energy)
- Taxes
- Subsidies

Promotional Instruments (Examples)

- Eco-labelling
- Voluntary agreements
- Awareness campaigns







1. Regulatory Instruments for Resource Efficiency in Cities





Policy Instrument 1: Regulatory Instruments

Regulatory instruments comprise **rules and targets set by public authorities** („command“) that are enforced by compliance procedures (“control“). Regulative instruments include legally binding **laws, directives and technical guidance documents**.

| Type | Description |
|--|--|
| Procurement Standards  | <ul style="list-style-type: none">• Specify purchasing rules for the acquisition of goods and services by the public sector (e.g. energy efficient office equipment). |
| Land-Use Standards  | <ul style="list-style-type: none">• Specify processes and policies which order and regulate land use (e.g. with the aim to achieve land use efficiency). |
| Building Standards  | <ul style="list-style-type: none">• Specify energy efficiency requirements for different types of buildings (e.g. increased insulation, reducing needs for heating and cooling). |
| Wastewater Standards  | <ul style="list-style-type: none">• Specify regulations for wastewater discharged to surface waters and municipal sewage treatment plants. |

GIZ (2006) Policy Instruments for Resource Efficiency; IEA (2008) Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings

Regulatory Instruments – Case Studies



Type of instrument: Guidelines and standards for buildings

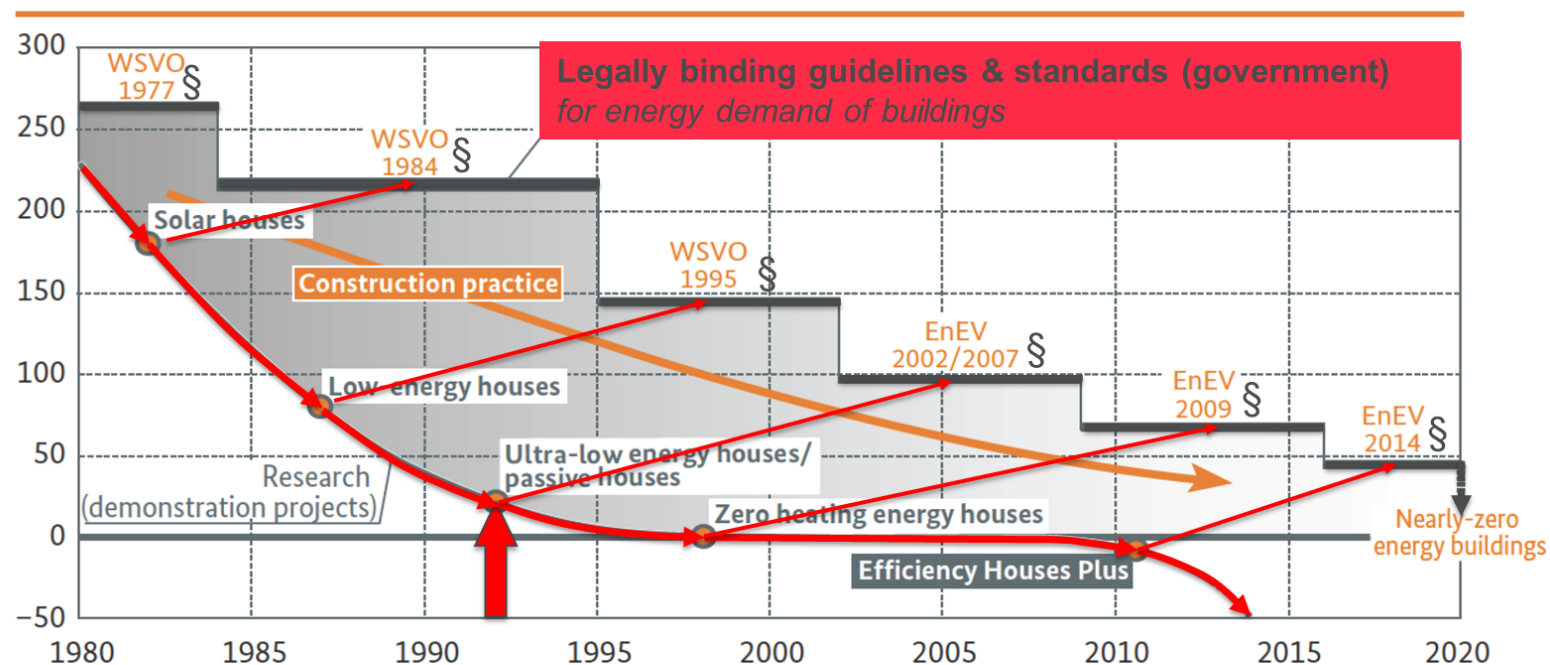
Level of responsibility: National

Country Germany

Description

Several legally binding guidelines and standards such as the *Thermal Insulation Ordinances* and the *Energy Saving Regulations* continuously reduced the primary energy demand of buildings from the 1980 until today

Primary energy demand for a semi-detached house – heating [kWh/m²a]



Evolution in the development of energy demand of buildings as reaction of the private sector to given standards



Policy Instrument 1: Regulatory Instruments

| Advantages | Potential Challenges |
|--|--|
| <p>High effectiveness and certainty in achieving objectives</p> <p>If rules and standards are enforced, they are very likely to achieve their aim.</p> <p>Relatively easy to set up</p> <p>Can in principle be easily formulated and enacted (however often face pressures from powerful interest groups).</p> <p>Widespread available experience</p> <p>Long record of experience with regulatory instruments which can be used and learned from.</p> <p>Independence from market conditions</p> <p>Supportive infrastructure like fiscal payment systems are not required.</p> | <p>Low innovation incentive</p> <p>Do not provide incentives to improve beyond standards (no innovations).</p> <p>Impacts on international competitiveness</p> <p>Regulations can be stricter than in regional/global comparison and therefore reduce competitiveness of national industries.</p> <p>Enforcement on local level</p> <p>Regulations developed at national level do not consider local conditions, making enforcement difficult</p> |







2. Financial Instruments for Resource Efficiency in Cities



Policy Instrument 2: Financial Instruments



Financial instruments include tariffs, taxes, subsidies and other instruments that aim to **better reflect environmental impacts** (externalities) and **resource scarcity in prices** so that producers and consumers can respond appropriately.

| Type | | Description |
|----------------------------|---|---|
| Tariffs/ User Charges |  | Levied by public authorities for services provided (e.g. water supply fee, waste disposal charges). |
| Environmental Taxes |  | Tax on a physical unit of something that has a specific negative impact on the environment (e.g. waste tax increases costs for waste disposal → incentive to prevent, recycle and reuse). |
| Subsidies |  | Financial support provided by governmental institutions to support household or private enterprises in order to promote resource efficient production and services. |
| Environmental Financing |  | Loans or grants provided to finance environmental measures on more favorable terms than those in the prevailing market. |



Type of instrument: Environmental Financing

Level of responsibility: Private (National)

Country

Mongolia



Description



- XacBank went into a partnership with the Global Climate Partnership Fund (GCPF)
- GCPF targets loans to private financial institutions that provide sub loans that create a 20% carbon emission reduction
- The partnership enabled XacBank to set up a lending structure that provides low-cost loans for energy efficiency projects to households and small and medium enterprises
- Success factor: Strict approval, monitoring and reporting requirements
- Results: Strong growth of the mortgage market; Up to 80% of energy savings from more energy efficient housing



Type of instrument: Wastewater tariff

Level or responsibility: City

City Da Nang

Country Vietnam

Description



- Da Nang was the first city in Vietnam to introduce a wastewater strategy.
- In line with national law, revenues for wastewater treatment are generated by applying a wastewater surcharge on water bills for all customers.
- Households that are connected to the city wastewater treatment system (less than 20%) pay according to a progressive rate system.
- However, these charges are still too low to cover costs for maintenance and operation.



Policy Instrument 2: Financial Instruments



| Advantages | Potential Challenges |
|---|---|
| <p>Strong incentives for resource efficiency</p> <ul style="list-style-type: none">Through price mechanisms economic instruments address financial interests of target group. <p>Promote long-term resource efficiency activities</p> <ul style="list-style-type: none">Economic instruments provide incentives to invest in research and new technologies to ensure long-term economic benefits. <p>Mobilization of revenues</p> <ul style="list-style-type: none">Environmental taxes and tariffs mobilize government revenues and align environmental and economic goals. | <p>Social considerations</p> <ul style="list-style-type: none">Charging fees for services can lead to concerns about accessibility of services to the poor (charging cost-covering fees can affect poor people disproportionately).Charging lower fees can however prove insufficient to cover the actual costs or to reach resource efficiency improvements. <p>Information gaps and political influence</p> <ul style="list-style-type: none">In order for instruments to achieve their objective, as many actors as possible should be included.This can be hindered by data gaps and resistance from influential lobby groups seeking to exclude certain industries. <p>Contradictions between subsidies and taxes</p> <ul style="list-style-type: none">Environmental taxes can contradict subsidies provides for important but scarce resources. |



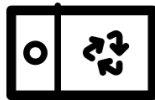



3. Promotional Instruments for Resource Efficiency in Cities



Policy Instrument 3: Promotional Instruments



Promotional instruments include a number of non-binding and voluntary tools such as eco-labelling, awareness campaigns, education and others. They all aim to **provide information and increasing awareness about resource efficiency**.

| Type | | Description |
|----------------------|---|--|
| Eco-Labelling |  | <ul style="list-style-type: none">• Label information regarding environmental performance of a product or service (e.g. with regard to energy efficiency). |
| Voluntary Agreements |  | <ul style="list-style-type: none">• Arrangements which encourage public or private actors to improve their resource efficiency beyond existing environmental legislation. |
| Awareness Campaigns |  | <ul style="list-style-type: none">• Activities aiming at increasing attention about resource efficiency among a specific group of people or the broader public. |
| Education/Training |  | <ul style="list-style-type: none">• Measures which educate about opportunities for environmental protection and economic benefits that can be achieved through resource efficiency measures. |



Advantages

Increased environmental awareness

Education, campaigns and visibility of eco-labels raise awareness among public and consumers about environmental issues.

Long-term effectiveness

Changing people's behavior through education and training (including awareness campaigns and eco-labelling) is an effective means of creating long-term capacities to implement resource-efficiency in production and consumption.

Encouraging proactive and precautionary attitudes

Voluntary agreements and education can shift societies' and business mindsets from reactionary (e.g. end-of-pipe technologies) to more proactive behavior (e.g. resource efficient production methods).

Potential Challenges

Incentive to participate

Incentives to participate in non-binding voluntary activities can be weak (depending on issues such as acceptance among broader public or employers).





Level of education

Instruments like awareness campaigns, training or eco-labelling can be undermined by a low level of education (particularly literacy level).



Steps to Consider for Designing and Implementing Policy Instruments



| Step | Issues |
|---|---|
| Knowledge Collection  | <ul style="list-style-type: none"> ✓ Gather information on the problem that is to be addressed and ensure that its causes and impacts across sectors are well understood. ✓ This should also include legal and political framework conditions to assess the scope for action. |
| Cooperative Dialogue  | <ul style="list-style-type: none"> ✓ Engage with stakeholders (government offices, civil society, private actors etc.) on the objectives and measures of the policy framework to check for potential side effects on other sectors or specific societal actors. ✓ This will also help to raise support for the policy instrument. |
| Design policy intervention  | <ul style="list-style-type: none"> ✓ Government offices need to design responsibilities, define objectives and criteria, develop legislation etc. to appropriately design respective instruments. |
| Ensure Monitoring and Compliance  | <ul style="list-style-type: none"> ✓ Set up a system to control for compliance (with non voluntary instruments) and when required/possible impose sanctions. ✓ Develop measures to check whether environmental (and economic) objectives are achieved. ✓ Develop tools and manuals for capacity building activities. |