

Environmental Assessment



Pressure-State-Response & use of Indicators

- The Livestock & Environment Toolbox uses the **Pressure-State-Response** (PSR) Framework
- The PSR framework was developed in the early 1990s and forms the basis for Environmental Assessment and Reporting, e.g. *SOE reports*
- Indicators form an integral part of PSR

Indicators

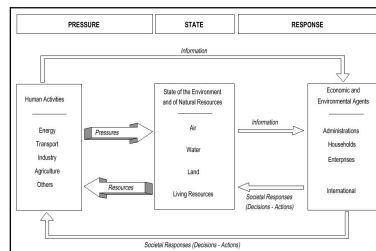
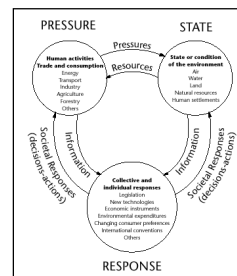
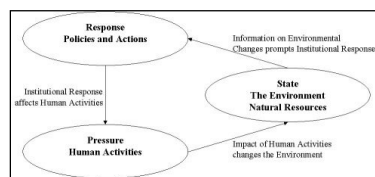
- Quantify and Simplify phenomena
 - Inform and Alert about changes taking place in systems
- WARNING function**
- Their use / utility depends on the context
 - Should also be designed to help decision makers understand why change is taking place

Use of Indicators

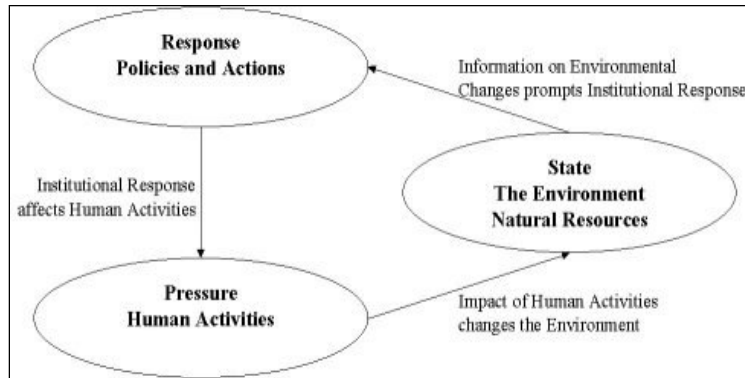
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|--|---|
| • Performance evaluation | How much ? |
| • Thresholds | In relation to a defined Max / Min quantity |
| • Causal Loops | Analysis of cause & effect |
| • Model construction & Scenario analysis | What If ? |

- Without **good monitoring data**, it is not possible to develop indicators
- Performance measures imply that **targets** are set, e.g. *quotas*, or *acceptable maximum levels*
- Indicators must take into account different locations, people, cultures and institutions.
- Sets of indicators evolve over time, and are seldom, if ever, complete
- Indicators tend to reduce uncertainty, but not eliminate it
- Indicators play an important part in influencing human impact on the environment operate.

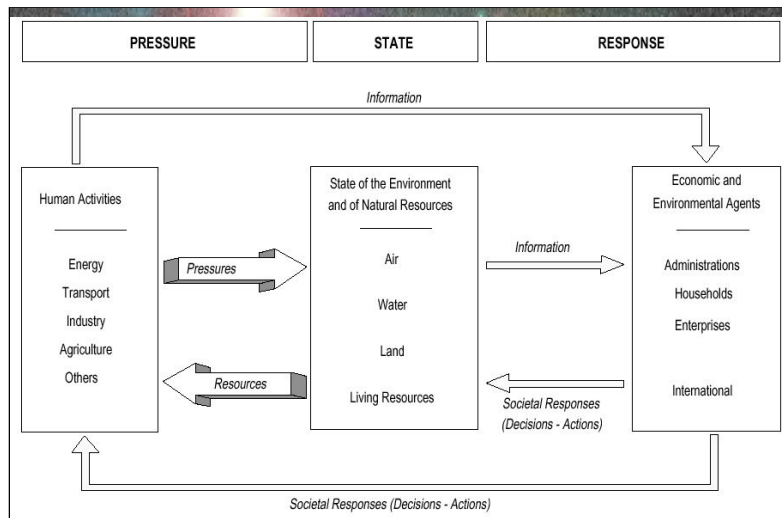
Pressure-State-Response

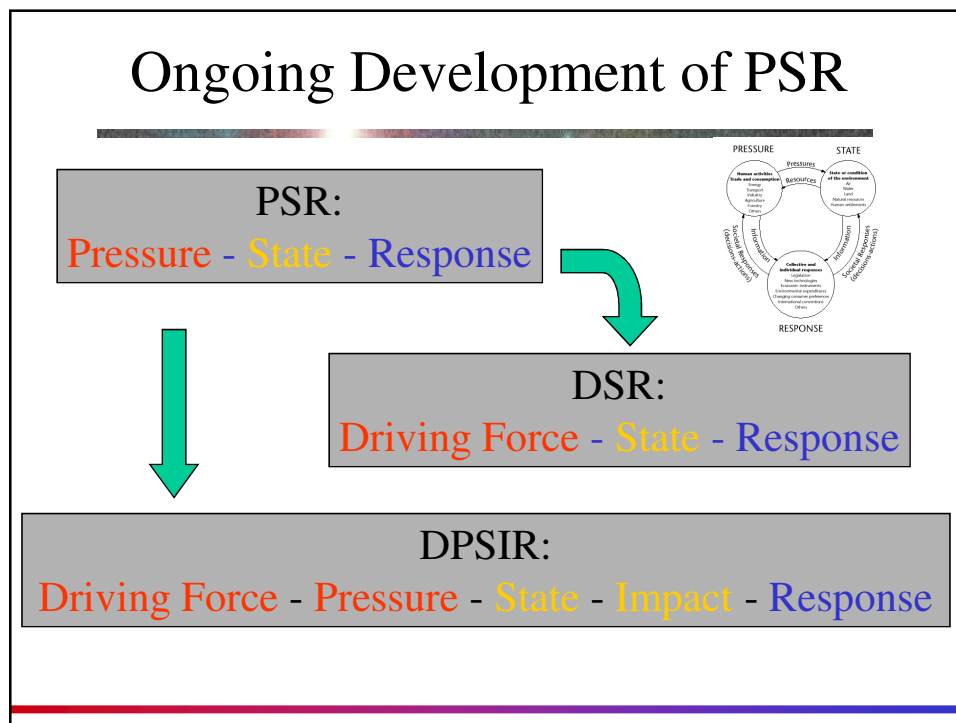
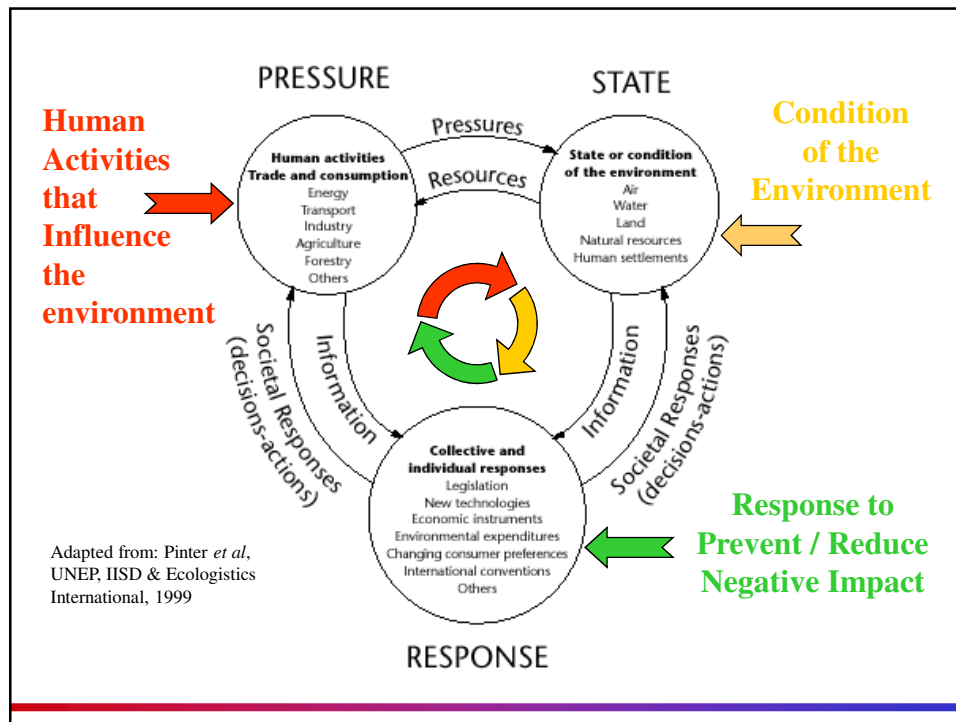


Pressure-State-Response



Pressure-State-Response

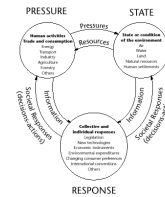




Pressure

The pressures Human Society puts on the environment, as a result of:

- human activities
- trade, and consumption

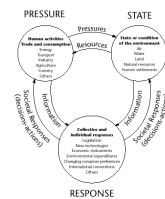


These activities, or **Driving Forces**, result in direct pressures on the environment such as:

- pollution
- resource depletion

State

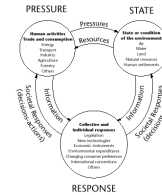
- Condition (typically of the environment) that results from the pressures, e.g. *pollution levels, degree of land degradation or extent of deforestation*
- These changed conditions may, in turn, affect human health and well-being
- One therefore needs an understanding of both the State of the Environment as well as the direct and indirect effects - or **Impacts**



Response

Relates to actions taken by society either individually or collectively,

- to prevent or mitigate against negative environmental impacts,
- to correct existing damage,
- or, to conserve natural resources



Responses Include

- Regulatory action & Instruments of Policy
- Public opinion & consumer preference
- Changed management strategies
- Environmental or research expenditure
- Provision of environmental information

Do Not Include

Coping Strategies: These tend to be State or Impacts, are less easy to influence with policy instruments, and are symptoms rather than causes

