Transformation to a Sustainable World

Responses and Examples

- 'Sustainable worlds', based on projections of the same levels of population and economic growth and with current technologies, are possible with the implementation of appropriate policies. For example, this is illustrated below for the water and fish sectors.

Projections of water withdrawals by sector under different scenarios

Challenges

- Assuming the continuation of current trends, aspirations for a more sustainable world will be increasingly out of reach.

- Significantly changing those trends will require the global community to jointly pursue a transformation towards a sustainable world.

Marine catches with and without a reduction in fishing effort
Internationally agreed goals and targets such as the Sustainable Development Goals (SDGs), and national targets such as those adopted by Japan in the context of its plan for a Sound Material Cycle Society, can help governments, businesses, scientists and other relevant stakeholders worldwide to channel resources, investments and policies towards achieving more sustainable development paths.

Material flow indicators in the context of Japan’s “Fundamental Plan for Establishing a Sound Material-Cycle Society”

<table>
<thead>
<tr>
<th>Fiscal year</th>
<th>2020 (Target year)</th>
<th>2000</th>
<th>2013</th>
<th>2013 vs. 2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource productivity, yen/ton</td>
<td>10,000</td>
<td>46</td>
<td>25</td>
<td>38</td>
</tr>
<tr>
<td>Cyclical use rate, %</td>
<td>17</td>
<td>10</td>
<td>16</td>
<td>+6</td>
</tr>
<tr>
<td>Final disposal amount, (million tons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>56</td>
<td>16</td>
<td>-71%</td>
</tr>
<tr>
<td>Municipal waste</td>
<td>-</td>
<td>12</td>
<td>5</td>
<td>-62%</td>
</tr>
<tr>
<td>Industrial waste</td>
<td>-</td>
<td>44</td>
<td>12</td>
<td>-73%</td>
</tr>
</tbody>
</table>

Source: Ministry of Environment Japan 2013

Increasing resource efficiency is an important strategy for helping to fulfill the Sustainable Development Goals. Indeed, 12 out of the 17 Goals depend directly on the sustainable use of natural resources for their achievement.

Success Factors

The achievement of the Sustainable Development Goals should not be pursued individually, in silos. This is because there are strong inter-linkages between many of the issues covered by the Global Goals, such that some strategies to achieve a particular Goal may make other Goals and targets difficult or impossible to achieve. Integrated strategies that focus on achieving a number of Goals jointly can lead to improved collective outcomes.

Some of the more difficult trade-offs to be faced in the pursuit of multiple SDGs are tensions created by competition for resources between food security and environmental conservation. Strong restrictions on land use change, for example, support natural resource conservation, but require additional parallel investments in resilient and productive agricultural systems to maintain food security.

Two different policy strategies can lead to the successful implementation of the 2030 Agenda for Sustainable Development. The first one is preferable:

I. Strategies which escape zero-sum outcomes and generate progress toward multiple, diverse Goals by identifying effective regional, targeted interventions that also constructively advance the broader 2030 Agenda.

Example

Consumption and Production policies that reduce pressure on the land system. For instance, decreased reliance in developed regions on meat and other animal products for protein can reduce mortality and other health impacts of over-consumption. At the same time, this will increase availability of these land- and water-intensive commodities in developing and undernourished regions, reducing mortality and enabling progress toward food security for all.

II. Strategies that cannot eliminate trade-offs among sectors and Goals, but do allow for prioritization among competing demands and targets.

Such policy options buttress systems in danger of failing without disproportionately increasing the burden on other sectors.

Example

These policy options neither increase nor reduce total pressure on land resources. Environmental policies such as greenhouse gas pricing and moderate forest conservation measures have minimal pressurizing effects on land systems.

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The International Resource Panel was established in 2007 to provide independent, scientific assessment on the sustainable use of natural resources and the impacts of resource use over the full life cycle.