Resource Use Efficiency: The Sustainable Path

BIAC Thought Starter

Improving natural resource use efficiency is a priority for both government and society at large, necessary to ensure efficient use of natural resources, security of supply and address environment, economic and social challenges. The OECD has played a major role in this area, in particular by adopting and monitoring the implementation of the OECD Council Recommendations on Resource Productivity, in conjunction with the Kobe 3R Action Plan and expanded analysis on material flows and indicators.

I. The Engaged and Proactive Role of Business

- By 2030, world population is due to increase by one-third and the size of the global economy will double. Business stresses that economic growth, sustainable, social and environmental development have to be made mutually supportive. Businesses have sought and continue to seek ways to improve the efficiency with which they utilise both natural and man-made resources, particularly in order to reduce their exposure to environmental risks (floods, droughts, extreme climate events) and volatile real-term commodity prices. The world’s resources are finite and must be managed as efficiently as possible; however resource efficiency also takes into account the interdependence of all economic activity on environmental systems.

- Resource efficiency makes business, environmental and societal sense. Energy efficiency has been a particular business focus over recent years, with investment in technology to address the climate change challenge. Many companies now look beyond mere energy efficiency, to ensure all their areas of operation are sustainable and resource efficient. The management of water, energy and land-use is a case in point, as well as the need for resource recovery and recycling. Efforts should be made to maximize businesses’ ability to combine investment, skills and growth.

- Through R&D, business and industry have continuously found ways to make each resource unit count, whilst new mineral deposits and recovery-methods have also been discovered. Over the years, technological change has consistently driven a higher yet more sustainable rate of economic growth to meet the needs of a growing

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1 OECD, Environment Directorate, Resource Productivity and Waste
global population. Furthermore, whilst many businesses have taken measures to ensure efficiency in their own operations, business can enable resource efficiency beyond their own sector and therefore encourage governments to adopt coordinated policy actions which better support such synergies and integrated approaches.

- Resource efficiency also comprises the issue of identifying which resources can most efficiently deliver the basic needs of a growing world population, whilst keeping within the limits of one finite planet. Not all resources are equally consumable, renewable or scarce. Not all environmental systems are equally resilient. Eradicating poverty, halting climate change, maintaining biodiversity and accommodating a projected nine billion people by 2050 requires optimised matching of resources to functions.

- In order to move forward, business believes it is crucial to strategically enhance the value of resources through resource use efficiency and life-cycle approaches. To this end, it is important to emphasise that business operates across a global value chain (GVC) and improvement in all sectors and all countries is essential for realising optimal results. GVCs are an important means of technology transfer and adoption, and business has a role to play here. However, due consideration should also be given to the challenges these present to resource efficiency, including; the breadth of the value chains, the effect of domestic policies on international markets, as well as cost and opportunities at different levels of development.

- Actions needed to transition towards a green economy will however vary from sector to sector, value chain, between countries and regions; there is no one-size fits all policy.

II. Challenges and Opportunities: What Business Needs

- Business and government can work together to achieve greater efficiencies. Concrete steps will be required to establish a constructive dialogue. These include:

  1. Recognition of resource efficiency being essential to future economic wealth
  2. Establishing a coherent understanding of the term resource efficiency
  3. Tackling policy and market risks that hold back investment in resource-efficient products and services.
  4. Addressing the need for having a set of clear, coherent and widely shared resource efficiency indicators, recognising that progress can only be monitored if it can be measured.

- Resource efficiency depends primarily on an overall supportive policy framework encompassing a range of different areas, including innovation, environment, integrated resource use planning and allocation, (e.g. Integrated Water Resource Management), trade and investment. A shared basic approach should be taken, looking at the full spectrum of policy areas that impact the subject. Obstacles, such
as trade protectionism, technological lock-in and over-zealous policies need to be addressed. To further assist business, governments can:

1. Incentivise companies to accelerate efficiency improvements
2. Encourage life-cycle approaches
3. Create and deliver new platforms for public-private collaboration (encourage knowledge sharing, R&D etc.)
4. Promote synergistic approaches that reaffirm the intrinsic values of different resources (e.g. biodiversity)
5. Develop forward-looking, clear resource efficiency plans

- Businesses will require sound regulatory frameworks at local, regional, national and global level, which are aligned and allow all actors to meet their shared responsibilities.

- Policy makers must offer certainty and simplicity in order for businesses to invest. Cross-governmental ownership of resource efficiency will help generate consistent policy. Favourable frameworks for business investment in innovation and joining up fragmented research platforms will be crucial for generating future sustainable economic growth.

- An interlinked policy perspective is crucial, taking into account a broad range of issue areas, (water, land, energy, materials etc) and how they interact with each other. For example, improved land management, water re-use and advanced irrigation technologies, together with adoption of advanced farming techniques and investment in crop research, can help maximise the “crop per drop” that farmers produce worldwide, thus contributing to water savings.

- SMEs should not be overlooked; it is important to consider how they can leverage a growing market share by introducing their innovations into the value chain.

- Creating circular, closed-loop product and service systems will also be important. Key factors to implementing such designs include fostering industry partnership with governments to level the regulatory playing-field and ensuring education to strengthen skill sets in areas such as life-cycle analysis and optimization, energy management, process and product innovation.

**III. Moving forward: What role for the OECD?**

The OECD is already actively engaged in addressing resource efficiency, by promoting sustainable use of materials in order to reduce the negative environmental impacts of particular materials flows. Of particular note are the OECD Council Recommendations on Resource Productivity and their work on material flow analysis.
• Business input is necessary in policy making in order to create the right conditions for business to thrive. More needs to be done to ensure collaboration amongst stakeholders, sectors and countries; this is an area in which the OECD might provide real added value. The OECD should not only examine how business might be more efficient in their own operations, but shed further light on how business can enable resource efficiency beyond their own sector. Governments should be encouraged to take better policy actions in support of this.

• An international perspective is required, and critically one that takes into account the full global value chain and the effects of trade. The OECD can play a role in establishing a shared set of indicators for resource efficiency, before moving forward. Competing indicators schemes should be avoided. The OECD should further take advantage of its unique position to maximise data synergies; for example, the way in which work on Trade in Value Added (TiVA) is now scheduled to feed-in to the OECD Green Growth Indicators.

• Including resource efficiency in models that inform policy discussions will provide the roots for a sound knowledge basis. Furthermore, given the diversity of resource challenges, it is important that all industrial actors are properly involved in this exercise. It is important to understand that terms such as “high impact material” are misleading and do not reflect the full life-cycle. Imposing bans or excessive limitation of certain materials does not take into consideration the potential benefits of such materials when put to use. Macro-economic production data might instead be used to look at the full range of options to limit the impact of a particular material flow.

• Although much good work has already been done, further steps need to be taken on the road ahead to ensure a comprehensive, global movement towards resource efficiency. These include:

  1. Further emphasis on the overall policy framework that needs to be in place for resource efficiency, including in the areas of innovation, environment, trade and investment;
  2. Sharing of global data and information systems on the state of the natural world and utilization of such data in strategic planning;
  3. Best practices and indicators for resource efficiency must be mainstreamed and shared;
  4. Mechanisms and platforms for discussion need to be utilised for all stakeholders to realise opportunities and overcome existing governance gaps;
  5. Increased utilisation of more efficient and durable resource approaches