

## V. Lessons Learnt and Implications

This section identifies those 'lessons learnt' about RBE in the APEC region from the kick-off workshop, the three pilot programs and the wrap-up meeting, as well as the implications of these lessons.

### **Lesson 1: Need to recognize diversity**

- APEC comprises a diverse range of economies whose RBE status is similarly diverse, which rules out generic treatment of RBE.
- While there is no standard definition of RBE or established RBE theory, the essence of the issue is that the emphasis needs to shift from resource consumption (a linear process) to 3Rs (a cyclical process).
- Diverse RBE situations mean diverse solutions. Possible alternative approaches include increased efficiency, economizing, waste reduction, improvement of manufacturing processes and eco-design. (Naturally, these approaches can also be usefully combined to address RBE issues.)
- The appropriate approach—for example, industry-specific or cross-cutting, economy specific or APEC-wide, compulsory or voluntary measures—will be determined by many elements, such as resource type, technology level, volume of recyclable resource (if volume is less than optimal, a common processing among more than one economy creates scale merit), and the level of market development.

**Implication 1: The first step must be information exchange and analysis of the actual situation in order to gain an accurate picture of how things stand.**

### **Lesson 2: Sharing best practices and the importance of capacity-building**

- Because establishing RBE depends heavily on social systems and technological and human elements, human resource development and capacity-building are of primary importance.
- To ensure a sufficient capacity-building effect and establish RBE societies in each of the APEC economies as well as APEC-wide, a massive input of time and energy will continue to be necessary.
- At the same time, this project achieved some highly significant results: clarification of issues unique to individual economies and common to the region; the sharing of experiences and best practices; discussion of appropriate responses; and identification of effective remedies.

**Implication 2: RBE will not be achieved in a day, but capacity-building activities and the sharing of best practices through APEC-based cooperation have proven to be highly effective approaches.**

### **Lesson 3: Legal and institutional frameworks and the market**

- In many cases, those economies where recycling is comparatively advanced also have more robust legal and institutional frameworks.
- Having a legal and institutional framework without appropriate enforcement is ineffective.
- Different historical and social backgrounds mean that legal systems cannot simply be transferred intact. Rather, systems have to be specifically designed to suit the characteristics of the particular economy.
- While developing laws and designing systems are principally the role of government, the market and its functions also play a critical role in supplementing legal and institutional framework.
- For those markets where high price volatility is anticipated, government intervention (such as regulations or incentives) would be desirable.

**Implication 3: For resources, business types and products where there is no market, an effective approach in addition to laws can be to create and maintain a market, and this is an area where government may be able to play a role.**

### **Lesson 4: Responsibilities of each stakeholder**

- All stakeholders have important roles to play in implementing RBE.
- Beyond legal frameworks, government (central and local) should also play a major role in areas such as development of definitions, creation of statistics, monitoring, guiding, assisting, and engaging in green procurement and technology development. These might include taxes and financial incentives for promoting 3Rs.
- Consumers can contribute to establishing RBE by supplying recyclable resources by way of properly sorting wastes or by buying products using recycled resources.
- Producers are key players, particularly for implementing eco-design, including design for easily recyclable products and the use of recycled materials. (There are cases of companies that have made a major contribution to RBE formation by going beyond company-, local- and economy-level to develop ‘closed-loop’ recycling systems.)
- Producers are also increasingly expected to act on the basis of EPR addressing the full product life-cycle.
- These activities need to be backed by awareness-building and education targeting both consumers and producers. Government, industrial groups, NGOs and other such groups should play a major role in boosting public awareness and increased stakeholder participation.

**Implication 4: All stakeholders contribute to RBE formation in various ways. In addition to shouldering their respective areas of responsibility, they will have absolutely critical roles to play in collaboration, information exchange and capacity-building activities.**

## **Lesson 5: Technology development and transfer and international cooperation**

- Formation of an RBE society depends heavily on the development of recycling technology, and widespread dissemination of RBE throughout the APEC region will require the development, transfer, introduction and embedding of various types of recycling technology.
- Unlike competition over manufacturing technology, which bears upon economies' international competitiveness, the development of new recycling technology, joint R&D, technology transfer to developing economies and direct investment in recycling industries, etc., represent a win-win situation for both technology developers and users.
- In transferring technology that promotes recycling, international cooperation such as under APEC should be further pursued. Technology cooperation can also be effectively combined with cooperation related to systems, information, policies and network formation.

**Implication 5: Pursuing formation of an RBE society through technology development and dissemination is an extremely 'APEC-like' activity, given APEC's positioning of international and technical cooperation at the heart of its philosophy.**

## **Lesson 6: Dealing with trans-boundary issues**

- As economic activities, and particularly trade and investment, are increasingly conducted on a trans-boundary basis, the potential for the trans-boundary movement of waste obviously also increases.
- Where the trans-boundary movement of recycled resources is conditioned on factors such as economic disparities, it can potentially expand inappropriate recycling by ill intended parties. On the other hand, it can also obstruct the trans-boundary movement of recycled resources by highly law-abiding companies. A balance therefore needs to be found internationally between appropriate regulations and liberalization.
- Harmonizing standards and import regulations, and establishing an APEC-wide waste tracking system should be promoted.
- Transferring of technology and sharing information will play a vital role in promoting the smooth movement and recycling of resources in the APEC region.
- Many economies have ratified the Basel Convention, but compliance and application problems, as well as the inadequacy of existing laws, have been noted.
- No consensus has emerged on international trade of second-hand goods.

**Implication 6: Rather than creating closed-loop RBE within individual economies, RBE needs to be addressed on a more wide-ranging basis. APEC is an appropriate forum for handling trans-boundary issues. Inadequacies of existing laws and their operation need to be addressed.**

## **Lesson 7: Carrying the torch of the RBE project**

- This project successfully fulfilled the objectives of identifying issues and challenges in implementing 3Rs and sharing best practices. The project output will provide valuable information and guidance for all APEC member economies<sup>5</sup>.
- Discussion on RBE establishment in the APEC region has only just begun, and it will be crucial to carry on the torch lit by HRD.
- To ensure the sustained development of RBE for APEC region, this issue must not be sidelined but rather tackled on an ongoing basis through solid and steady capacity-building.
- More specifically, RBE activities need to be continued and promoted with a vision of sustaining and developing the results achieved in individual APEC economies and coordinating RBE activities with other fields in APEC (environment, energy, etc.).
- There would be significant value in establishing and maintaining a network, (e.g., website, e-mail list, annual conference, etc.) that would share 3Rs success stories and assist in matching availability and needs of recyclable materials.

**Implication 7: Implementing the RBE project and putting together the project report has opened the door to a new world. Rather than a conclusion, this is a beginning.**

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<sup>5</sup>. [http://www.apec.org/apec/member\\_economies.html](http://www.apec.org/apec/member_economies.html)

