The Extended CDL Network in Palau – an enabler of recycling activities in the remote island, Peleliu

Application of CDL to a remote island in Palau, Peleliu

Improving the SWM situation in remote islands is a big challenge for PICs. In fact, many PICs have failed to take effective measures towards remote islands, as usually the focus of the national government is skewed towards the populous major islands, while donor interventions tend to be concentrated in populous areas as well by considering the cost effectiveness of such interventions.

In July 2016, the CDL system of Palau was introduced to the remote Peleliu island, located southwest of the main islands of Palau. This was an innovative initiative by a Japan Overseas Cooperation Volunteer (JOCV) who was dispatched to the Peleliu State Government at that time. The JOCV devised a beverage container recovery system that was workable in this remote island through discussion and collaboration with the redemption centre of the Koror State Government.

Leading Agency(s)

Peleliu State Government, SWM section of Koror State Government, Japan Overseas Cooperation Volunteers (JOCV)

Location/ Geographical Coverage

Peleliu Island
Measures/ Approach

Despite the growing interests towards 3Rs in PICs, many PICs struggle to implement substantial 3R activities which are beyond simply being environmental campaigning. This situation is particularly noticeable in remote islands.

Among such 3R challenges, beverage container recycling, often called CDL, can be made to work well in the Micronesia region. The CDL system in Palau is shown in the diagram below. The application of the existing CDL system functioning in the main islands of Palau so that it can also operate in the remote island of Peleliu is the essence of this good practice study.

(1) **How CDL works in Koror (the main island)**

- Deposit fees, 10 cents per container, are imposed on imported beverage containers when imported.
- Consumer who bring empty containers to the designated redemption centers will receive 5 cents per container.
- Half of the remaining 5 cent deposit originally paid, 2.5 cents, is paid to the redemption centre in order to cover the operation costs, as Handling Fee.
- The other half, 2.5 cents, is held back in the special fund of the Ministry of Finance (MOF) to be used by the Bureau of Public Works (BPW) for solid waste activities such as landfill improvements.

(2) **How CDL works in Peleliu (a remote island)**

- Every consumer or resident who brings empty beverage containers to the Peleliu State Government (PSG) will receive 2.5 cents per container.
- PSG will ship out the collected containers to Koror via public boats, and a PSG official who receives the containers at the port in Koror will bring them to the redemption centre in Koror, and will receive 5 cents per...
The difference, 2.5 cents per container will go to the PSG in order to cover the operation cost of PSG.

As a recent phenomenon, a Bangladesh worker who works at the construction site in Peleliu started buying empty containers at the higher rate (higher than 2.5 cents per container) and bring them to the redemption centre in Koror to get 5 cents. The difference is his income. Most of the empty containers are now bought up by this Bangladesh worker since he pays more than 2.5 cents, however, currently PSG does not have any intentions to oppose this situation.

Residents of the Peleliu Island are beneficiaries.

Residents are the beneficiaries of this good practice (the CDL system) which was introduced by the Peleliu State Government.

This CDL system improvement was implemented by the Peleliu State Government, in collaboration with the redemption centre of the Koror State Government.

Important external factors are (i) the involvement of a JOCV dispatched to the Peleliu State Government and (ii) the CDL system fully functioning in the main island of Palau.

As a recent phenomenon, in place of the Peleliu State Government, a private buyer, a Bangladesh worker, buys beverage containers from residents.

Empty beverage containers that had been disposed in the state dump site or scattered all over the island are now collected and shipped out from Peleliu to the redemption center in Koror.

Impact

CDL in the remote island of Peleliu is realized as having a positive impact, just as has the CDL system in the main islands of Palau. This extended CDL network – the difference between (i) full-scale CDL in the main island and (ii) a modified CDL for a remote island provides residents of the remote island with the means of recycling their beverage containers.

As a result, the most of beverage containers are no longer dumped at the public disposal site. Also, the system contributes to reduction of waste beverage containers littered around the island.

A feature common to every CDL systems in the region is to benefit the less privileged more financially. Usually, those who are underprivileged will go around to collect empty containers and bring them to the redemption
Success Factors

The most important success factor, being a prerequisite, is the full-scale CDL in the main island.

Other important success factors in this good practise case are as follows: (i) A JOCV dispatched to the PSG, who knows how the CDL system functions in Koror, got interested in the introduction of CDL system in Peleliu, and actually encouraged the PSG to start the CDL; (ii) A Japanese SWM consultant hired by the Koror State Government, who supports the operations of the redemption centre, provided technical advice to the JOCV in a timely manner.

However, this does not mean the initial intervention by foreign experts is essential. Rather, this good practice proves that as long as the full-scale CDL functions in the main island, the application to the CDL to a remote island is possible by local officials, as is seen here.

Constraints

There is no serious constraints so, as long as the PSG considers collection of the target items by the private sector Bangladeshi collector no problem.

Sustainability

As long as the CDL system in the main island is institutionally, socially, economically and environmentally sustainable, which is usually so in most states and countries that have introduced the CDL system, the modified CDL in remote islands will also be institutionally, socially, economically and environmentally sustainable. The CDL records of PSG prove that the system is institutionally, socially, economically and environmentally sustainability although the JOCV has now left the island. Currently, no foreign volunteers or experts reside in Peleliu.

Replicability and/or Up-scaling

This is possible to be replicated in other remote islands if the full-scale CDL is introduced and functioning well in the main islands. The essence of how the extended CDL network works both in the main island and remote islands can be shared not only within the country but also among other PICs.

Lessons Learnt

There is still an opportunity to carry out 3R + Return activities even if islands are remote and small.

In case of Peleliu Island, the population size of 484 is rather too small to have own recycling system in a cost effective way, and therefore no recycling activities had been carried out for long time. As a result, even valuable
aluminum cans were piled up in the state dump site. This practice shows that the introduction of a CDL system in main islands provides residents of less populous remote islands with rare opportunities for recycling in the most cost effective way.

Conclusion

This example illustrates the potential of CDL systems beyond expectations

The extended CDL network – the network between (i) full-scale CDL in the main island and (ii) modified CDL for a remote islands, is a very effective way to provide the residents of remote islands with opportunities of recycling with on the premises that the CDL functions well in the main island. This can be considered as an advantages or a positive impact of the CDL system in general.

Contributions to SDGs

This highly contributes to the Target 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse of the Goal 12 Responsible consumption and production.

Author(s) / Contact Details

J-PRISM II: Ms. Misa OISHI (oishimisa@gmail.com)

Peleliu State Government: Ms. Michelle Kodep (Maintenance worker/ Recycle Project, PSG) ;Ms. Shari Nicholas (State Finance Officer/ Chief of Staff, PSG)

Relevant Websites/ Resources

None

Publisher

J-PRISM: The Project for Promotion of Regional Initiative Solid Waste Management, JICA: Japan International Cooperation Agency

Acknowledgments

SPREP: Secretariat of the Pacific Regional Environmental Programme