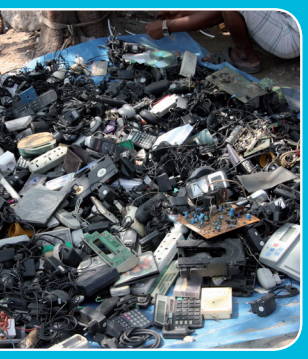
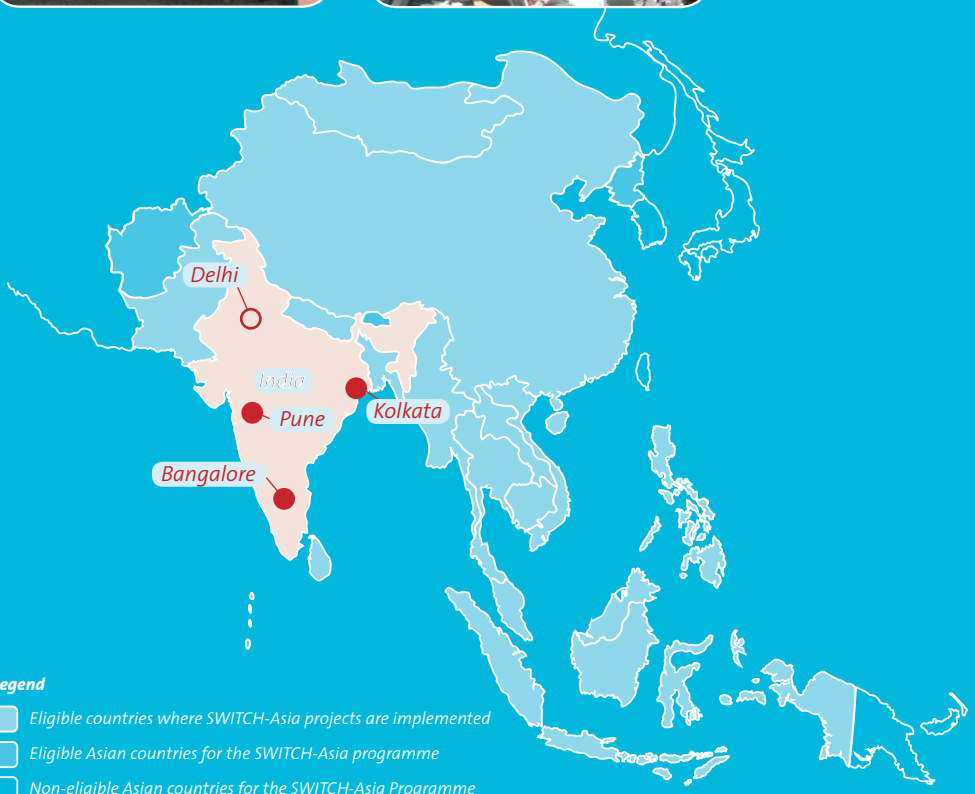
switchasia
NETWORK FACILITY

PROJECT PROGRESS SHEET

ESTABLISHING E-WASTE CHANNELS TO ENHANCE ENVIRONMENT FRIENDLY RECYCLING





Legend

- *Eligible countries where SWITCH-Asia projects are implemented*
- *Eligible Asian countries for the SWITCH-Asia programme*
- *Non-eligible Asian countries for the SWITCH-Asia Programme*

Project implementation area

- *City*
- *Region*
- *Country*

The boundaries shown on this map do not imply on the part of the European Union any judgment on the legal status of any territory or the endorsement or acceptance of such boundaries.

BRIEF PROJECT DESCRIPTION

The project aims to reduce the pollution due to the recycling of e-waste in the unorganized sector and establish a collection mechanism that channelizes the waste for environmentally sound recycling of e-waste, through a col-lective effort of all stakeholders in the value chain. The activities undertaken during the first year of project (Jan.2010 – Dec. 2011) include the following:

Linkages with e-waste recyclers/ dismantlers in the informal sector were established in the four target cities. The existing associations of the informal sector workers in Delhi and Bangalore were strengthened through regular interactions and capacity development. These associations in Delhi are now registered as Private Limited Com-panies (HRA e-waste Pvt. Ltd. and Green E- Waste Recyclers Pvt. Ltd) and have applied for registration with the State regulatory authorities.. In Bangalore, companies with roots in the informal sector – EWaRRD and EcoBiRD have received clearances from the Central Pollution Control Board and Karnataka State Pollution Control Board (KSPCB) for operating their business in an environmentally sound manner.

With the support of the Dept. of Environment, Delhi Government, 15 e-waste collection bins were installed at various government offices in Delhi for channelization of e-waste. In Bangalore the existing e-waste collection centres provide collected material to E-WaRRD and Eco BiRD. In Pune, GIZ is working closely with KKPKP, Mahratta Chambers of Commerce Industry and Agriculture (MCCIA) and Pune Municipal Corporation (PMC) for establishment of a collection mechanism in the city. In Kolkata, GIZ provided advisory support to West Bengal Pollution Control Board (WBPCB) for preparation of an Expression of Interest (EoI) for setting up a recycling unit in the region. Technical guidance was also provided to select and shortlist the companies especially offering plans to integrate the existing informal sector units in Kolkata.

A project style guide and design tool kit has been developed allowing for consistent external communication to different target groups enabling the development of a project identity. A poster competition was organized in four project cities with participation of around 500 students on the theme – Evolving E-waste Collection Mechanism. The 12 selected posters are developed into a calendar for the year 2011 for spreading the awareness on the e-waste related issues.

The Draft E-waste (Management and Handling) Rules were released by the Ministry of Environment and Forests (MoEF) after reviewing the draft submitted by GIZ, MAIT, Toxics Link and Greenpeace. Series of regular network-ing meetings were organized to engage with the various stakeholders for enhanced partnerships and incorporate the views of stakeholder spectrum. Various studies were undertaken on e – waste related issues across the pro-ject cities viz. carbon footprint of e-waste recycling (draft), Legal forms of informal sector associations (final), mapping of informal sector and e-waste chain in Pune (initiated). In addition to this, a catalogue of products made from e-waste was developed for utilizing the unused components from e-waste. Various publications, book chap-ters and conference papers were prepared on e-waste related issues wider dissemination and outreach of the project .

PROJECT PARTNERS

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Toxics Link, Manufacturers' Association for Information Technology (MAIT), Adelphi Research

PROJECT IMPACT

The engagement of the project consortium with the Ministry of Environment and Forest (MoEF) has resulted in the formulation of a separate legislation on e-waste. The draft "E-waste Management and Handling Rules 2010" have been released by the MoEF. Under these rules, procedures have also been prescribed for seeking authorization and registration of dismantlers and recyclers of e-waste in India. The Indian Government announced on 4 October 2010 that the new E-waste legislation shall enter into force on 1.1.2012.

PROJECT DURATION

January 2010 – December 2013

TARGET GROUPS

- WEEE Recycling SMEs in the Delhi (NCR), Bangalore, Kolkata and Pune such as E- waste HRA E-waste Pvt. Ltd. , Green e-waste Recyclers, E-WaRRD, Eco BiRRD, members of SwaCH and KKPKP.
- Manufacturers' Association of Information Technology (Partner Organisation), Mahratta Chambers of Commerce, Industry and Agriculture
- Manufacturers of IT and CE equipments in India like Apple, LG, Nokia, IBM, Dell.
- Formal Sector Recycling Units in Delhi, Bangalore, Kolkata and Pune regions such as SIMS Recycling Solutions, Earthsense Recyclers, E-Parisara etc.
- Large Generators of WEEE in Delhi, Bangalore, Kolkata and Pune regions including Public and Private enterprises, State Government Offices, Municipal Corporations, Corporate off and BPOs.
- Ministry of Environment and Forests (Government of India), Central Pollution Control Board and State Pollution Control Boards in Karnataka, West Bengal, Maharashtra and Delhi.

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OUTPUTS UNTIL DECEMBER 2010 TO BE SHARED WITH WIDER AUDIENCE

WP1: Establishment of Informal Sector Associations During the course of the year, linkages with work-ers of the informal sector have been established in the four target cities. Existing associations of the informal sector workers are now registered as Private Limited Companies and have applied for registration with the State regulatory authorities. The two Private Limited Companies that have been formed in Delhi are HRA e-waste Pvt. Ltd. and Green E- Waste Recyclers Pvt. Ltd. HRA e-waste Pvt. Ltd has applied for the Consent to Establish (CTE) from the Department of Environment, Delhi government. The company has rented a unit in one of the in-dustrial areas of Delhi for collection of e-waste and would start its operations once they receive the registration for Consent to Establish (CTE) and Consent to Operate (CTO) from the Dept. of Environment. . In Bangalore, the existing companies with roots in the informal sector – EWaRRD and EcoBiRD – have received clearances from the Central Pollution Control Board and Karnataka State Pollution Control Board (KSPCB) respectively for operat-ing their business. EcoBiRD is also performing wet processing of e-waste for metal extraction in an environmental friendly manner.

In Pune, contacts are established with SWaCH (Solid Waste Collection and Handling), which is a Cooperative of waste – collectors. SWaCH Cooperative is an autonomous enterprise of waste pickers that provides front end waste management solutions to the citizens of Pune and is authorized to provide door to door waste collection and allied waste management services by the Pune Municipal Corporation (PMC). It is a professionally managed enterprise and its door-step waste collection service is available in more than 250,000 homes across the Pune city. Discussions have been held with them regarding the formation of associations of members from the informal sector. However, in Pune capacity development is the major need as e-waste is a relatively new issue for the stakeholders. As a result, in the first year the focus has been on strengthening the capacities of stakeholders, indentifying and mapping of areas and clusters. Therefore, different stakeholders were approached and initial dialogues regarding the project were established for developing an action plan for project implementation in the city. In Kolkata, the Project Implementation Unit (PIU) for project implementation is established. An internal core team including West Bengal Pollution Control Board (WBPCB), GIZ, Indian Chambers of Commerce (ICC) has been formed to strategise and plan the future activities in the city.

WP2: Establishment of an E- Waste Collection Mechanism E-waste bins are installed at 15 Government of-fices in Delhi with the support of State Government for improved channelization of e-waste There are ongoing discussions with Manufacturers of IT on Take - Back Mechanisms and integrating the informal sector in their collection mechanisms. Two formal recycling companies in Delhi and NCR have signed Letters of Intent with the formalised informal sector to venture into business agreements with them. Linkages are also established with Public Sector Units through State Government bodies such as the State Pollution Control Boards. In addition, MAIT is working very closely with the take back infrastructure of large brands to strengthen the low volume collec-tion of e-waste in the cities. Stakeholder consultations were organised in Pune and Bangalore where representa-tives of Government agencies, Recycling companies, Manufacturers of IT as well as Bulk Generators

of WEEE have shown keen interest in being associated with the project and plan the strategy for establishing e-waste col-lection mechanisms in the cities. By focusing on establishing clean e-waste collection channels, the material unaccountably drifting to the informal sector for extractive purposes would now be reduced. This would lead to a significant reduction in environmental impact due to improper e-waste recycling.

WP3: Capacity Building A working group (WG) comprising of representatives of project partners is formed for the development and implementation of capacity building modules for Training for Trainers (ToT) courses in the four project cities. The WG members have developed the capacity building (CB) methodology in terms of cate-gorization of topics into a beginners and advanced course, developed the modules and implemented trainings and workshops.

The key topics identified for development of training modules include Instructions for trainers; E-waste specifics/ toxic substances; Environment, occupational health and safety; Identification of recyclable, refurbishable, reuse-able, material, segregation and dismantling; Association building – Approach the Informal sector; Recycling and disposal; Association building – Legal Aspects; Policy and Business Management.The structure of the TOTs includes a two day Capacity Building module for the Project Implementation Units (PIU), a three day beginners course and a 2-3 day advanced course in each project cities for around ten local trainers.

Till now six workshops have been conducted in different project cities viz. Kick-off workshop with all partners (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e23209), planning workshop with all partners for mapping of stakeholders and planning the way forward (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e24094), orga-nizing informal sector (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e25598), Capacity Building of PIU set up in Bangalore (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e29514), stakeholder consultation in Pune (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e28716) and project review (http://www.hrdp-net.in/e8451/e8981/e18019/e18020/e31361). One beginners level ToT course has been implemented in Banga-lore with local trainers from PIU comprising of MAIT and Saahas, E-WaRDD and EcoBIRD.

The modules developed by the WG is adjusted as per the needs of each city which could then be replicated and used further by the local trainers in communicating e-waste related issues to different stakeholder groups.

WP 4: Research and Development A study on "Legal Status of the Profit Making Registered Entity for the group of Informal Sector Workers" was conducted in Delhi. The objective of the study was to prepare a compendium on the legal aspects of the various formalization options and suggest the best option. The main recommendation of the study is to register the informal sector associations as a Private Limited Company under Section 25 of the Companies Act 1956 of the Government of India.

A catalogue on products made from e - waste was developed. The purpose of developing the catalogue was to develop a guide for the production of reusable products from electronic wastes to prevent dumping of re-usable fractions in waste disposal sites while providing alternative sources of livelihoods to the workers involved. In Pune, a study is being carried out with the support of Swach to map the areas where e-waste related activities are being conducted in the informal sector. This study will enhance the awareness among the stakeholders on e-waste trade chain and mapping of clusters in terms of processes and channelization mechanism. A number of publications and conference papers were written on e-waste related issues during the last year. The following publications have been prepared:

- Paper on "Mainstreaming the Informal Sector in E-Waste Management" for the national conference on Ur-ban, Industrial and Hospital Waste Management organised by Gujarat Pollution Control Board.
- Paper on "E- waste Recycling in India – Bridging the Formal – Informal Divide" for a volume on Envi-ronmental Scenario in India: Successes and Predicaments" to be published by Routledge, UK.
- Paper on "Policy Cycle: Evolution of E-waste Management and Handling Rules" for a National Conference on Sustainable E-waste

Management organized by the Bhaskaracharya College of Applied Sciences, Delhi.
- Paper on "E-waste Recycling in India; Bridging the formal – informal gap" for Recycling International Magazine.
- Paper on the project entitled 'E-waste Recycling in India – Bridging the Gap Between the Informal and For-mal Sector" presented in the International Conference (ISWA). Hamburg, Germany.

A study on "Carbon Footprint of E-waste recycling scenarios in India" is under preparation. The scope of the study was to calculate the carbon footprint of e-waste recycling for different recycling scenarios; elaborate material wise data and calculate for one product (PC); compare with primary mining and refurbishment and have a set of data for the development of green products. The conclusions from the study state that a better CO_2 intensity of the electricity mix would make recycling in India more attractive; Manual dismantling provides clear advantages for a better carbon footprint also due to higher metal yields; Primary mining is by far inferior to any recycling scenario in terms of carbon emissions (with the exception of lead); For the metals from the copper fraction (gold, silver, palladium, nickel, lead, copper) transport emissions make up 38 -40% of total emissions. Smelting in India would provide clear benefits (even more if efficiency of electricity usage is being enhanced).

WP5: Policy Dialogues and Dissemination Activities: The engagement with the Ministry of Environment and Forest (MoEF) has resulted in the formulation of a separate legislation on e-waste. The draft "E-waste Management and Handling Rules 2010" have been released by the MoEF. These rules clearly define the responsibility of producers, collection centres, consumers, bulk consumers and recyclers / re-processors. The rules have also made Extended Producers Responsibility (EPR) and Restriction of Hazardous Substances (RoHS) mandatory for Manufacturers. Under these rules, procedures have also been prescribed for seeking authorization and registration of dismantlers and recyclers of e-waste in India. GIZ is also preparing the guidelines that would support the implementation of the Rules on E-waste management. The individual and collective producer responsibility model as suggested in the draft e-waste rules is elaborated to assign responsibilities to different stakeholders for the implementation of the Rules.

GIZ participated in the Second Networking Meeting of the Switch – Asia Projects held in Beijing in October 2010. GIZ also participated in a Panel Discussion on e-waste organized by Aljazeera International English TV. Representatives from GIZ also participated in the 4th EU-India Environment Forum.

The following dissemination activities were undertaken during the last year under the WEEE Recycle Project:
- A poster was submitted for the Second Networking Meeting of the Switch – Asia Projects.
- A Poster Competition was organized in schools with participation of around 500 children in the four project cities on the topic "Electronic Waste - How can we contribute for improved collection and management?" This will also result in a calendar for the year 2011 comprising of 12 best entries from across the four cities.
- General awareness on safe disposal of e-waste was organised at public places such as the Big Bazaar in Bangalore. This was followed by a collection drive at schools and various other localities in the city.
- A Documentary on e-waste was made by BBC – UK. The team from BBC visited the informal sector in Delhi and took bytes from the informal sector workers on their processes for dismantling of e-waste.

Project style guide and design tool kit has been developed and shared with partners for developing a visual personification of the project, with tools to communicate in a consistent voice with different target groups which will create a long term strong identity of the project. The WEEE Recycle Project Brochure was developed and the templates for project presentation, posters, flyers etc. were developed for enhanced project visibility. The project website layout and structure is developed as per the project style guide and the website is under construction.

Project management system has been developed for improved communication and information flow between project partners and PIU members (http://web2project.adelphi.de).

RESULTS ACHIEVED TILL JANUARY 2011

Has the project engaged with the target group successfully?

Over the last one year, the project has been successful in developing synergies with various stakeholders such as the informal sector associations, industry and the state government in the project cities. The capacity devel-opment of the different target group has created a demand for activities and processes planned in the project. For instance, the module on policy and business management and improved marketing is demanded by the SMEs for environmentally sound e-waste management who were earlier hostile towards regulatory framework as well as unaware of book-keeping and accounting system.

Partnerships with local NGOs have proven to be instrumental in establishing Project Implementation Units (PIU) in the cities. The PIUs are playing an active role in reaching out to the various stakeholders in the project cities and eliciting cooperation from them. The industry associations such as the MCCIA in Pune has shown keen inter-est in being associated with the project and is open to foster collaboration for setting up of collection mechanisms in the city. The engagement with the Delhi Government has resulted in installing e-waste collection bins across fifteen government offices in Delhi. These collection bins are an instrument for spreading awareness for efficient e-waste disposal and collection mechanisms.

What are the direct sustainability gains (i.e. linked to environment, social and economic aspects) so far?

Continuous engagement and technical support to the informal sector has encouraged informal recyclers, assemblers and vendors of e-waste to adopt environmentally sustainable, cleaner & suitable technology and best management practices through the formation of Private Limited Companies for establishing e-waste collection and dismantling centres which are certified by the state regulatory authorities. The formalization of the informal sector is slowly reflecting in an enhanced social and economic status of the informal sector members. They now have better access to social security, technical training and are able to serve as an authorized supply chain member. By the very nature of design, the project has been successful till now in establishing links between the private and the informal sector which is mutually beneficial. This would have the dual benefits of reducing the e-waste levels as well as economic upliftment of the informal sector, which is expected to reflect over the subsequent years of project implementation.

What SCP replication mechanism the project has built, or contributed to and how was it done (e.g. through service providers, value chain partnerships, business providers, financial institutions)?

The engagement with the Ministry of Environment and Forest (MoEF) has resulted in the formulation of a separate legislation on e-waste . The “E-waste Management and Handling Rules 2010” were released by the Ministry of Environment and Forests (MoEF) in May 2010 defining the responsibility of producers, collection centres, consumers, bulk consumers and recyclers / re-processors. The rules have also made Extended Producers Responsibility (EPR) and Restriction of Hazardous Substances (RoHS) mandatory for Manufacturers. This has led to an increase in the number of registered recyclers in the country willing to establish state of the art recycling infra-structure for e-waste management. The engagement with the manufacturers of EEE in the form of round tables and consultations has brought forth the need for design improvements in EEE manufacturing and launching of e-products by several brands. The leading brands of the

country are also contemplating on establishing viable and workable models of EPR in the country. The collaborative approach of the project has resulted in the formation of city level consortiums comprising representatives of state authorities, industry as well as civil society organisations for the development of city level action plans for establishment of environmentally sound e-waste channelization mechanisms. For instance, a Core Group is formed in Pune representing MCCIA, Pune Municipal Corporation (PMC), Pimpri Chinchwad Municipal Corporation (PCMC), Pune Cantonment Board, Maharashtra Pollution Control Board (MPCB), Kagad Kach Patra Kashtakari Panchayat (KKPKP which is a consortium of waste collectors in Pune) and several other such organisations. This Core group has taken up the responsibility of developing a Pune e-waste action plan and its implementation strategy in tune to the requirements of the national e-waste legislation. Similar actions have been undertaken in the other project cities as well.

How did you play a role in update of SCP policies?

It is expected that in the light of the new e-waste legislation and through continuous technical support from the project, the activities in the formal and informal sector in the four project cities would be streamlined to the requirements of environmentally sound e-waste management practices in the coming years. GIZ, along with other stakeholders, is in the process of developing guidelines for the implementation of Rules with clear roles of each stakeholder under the legislative framework. These guidelines provide a road map for implementation of the models for the channelization of e-waste in a holistic manner addressing the economic, social and environmental aspects.

LESSONS LEARNT SO FAR

How do you see the strengths and weaknesses of the methodology that you have chosen initially? Have you had to make some adaptations? Why?

During the project planning workshop it was realized that the implementation of the project would need the set up of project implementation unit with the engagement of local stakeholders. This approach will result in developing sustainable strategy for replication as the project activities will enhance ownership and capacities of local partners to resolve city specific issues. The weakness of such an approach will be to maintain a regular flow of information between various national, international and local partners. This issue was resolved by developing a project management online database with information on each project city in terms of activities undertaken.

What problems have you encountered concerning project coordination, impact assessment (sustainability gains), stakeholder engagement, etc.? Have some stakeholders already proven to be more important to the project than others?

The management structure of the project team is based on assigning responsibilities to individual partners according to their respective strengths. This has allowed for each partner working according to its comparative advantage, ensuring a major role for local experience and values. One of the main strengths of the methodology has been the synergy generated as a result of the in-depth knowledge of the project partners like GTZ, MAIT and Toxics Link regarding e-waste scenario in India coupled with the technical expertise of Adelphi. This has allowed for more informed inputs towards the development of cooperation model between the formal and the

informal sector based on the inputs from the European partners. In addition to this, Networking and follow-up activities and collaboration with other local NGOs have allowed for enhanced visibility as well as possibilities for further replication of our approach. For example, the inclusion of local NGOs like Saahas in Bangalore, Disha in Kolkata and Swach in Pune for project implementation has supported the establishment of Project Implementation Units which in turn has enabled the project in establishing linkages with various relevant stakeholders in the cities and speeding up the implementation process. Moreover, the formation of consortiums/ core group in the cities comprising of representatives from state regulatory authorities, industry and civil society has enriched the knowledge base for each city and the action plans are now developed keeping into consideration the local scenario and requirements of each city. Having all the relevant stakeholders on board smoothens the process of implementation as the ownership and responsibility is voluntarily accepted by the consortium members in addition to the overall responsibility of the implementing partner.

Some of the major issues and challenges faced in the implementation process can be attributed to the gaps and overlaps in the legal system. As the e-waste Management and Handling Rules are still as a draft, there is no specific plan for the monitoring and enforcement. Second, there is a lack of viable working models amenable for the Indian conditions that emphasize the links between the informal and formal sector. The incentive structure for this collaboration has to be demonstrated through the implementation of working business relationships as well as through the appropriate contracting mechanisms. Third, people working in the informal recycling sector often have a long history of exploitation and oppression. They have not learned to trust each other and organise in a common front, with common opinions and views for negotiation purposes and they are wary of being dominated. Furthermore, informal sector workers are at risk of being dependent on powerful collaborators in order to earn their income. Efforts to organize the informal sector must therefore be particularly careful with regard to attempts by the more powerful groups among the informal sector to abuse support or regulation efforts for their personal interests. As a result there is a need to create a positive public and political attitude towards the informal sector workers. Further, it is necessary to perceive them as benign environmental agents and valued partners, acting together towards common goals for environment protection and social inclusion. The integration of activities in the informal and formal sectors is essential to establish a viable recycling model for e-waste recycling. There is need to dovetail the activities of the informal sector with those of the formal recycling units so as to achieve optimal solution to the recycling practices without compromising on the environment and human health.

Has it been difficult to achieve/establish local participation/ownership in the project?

Each stakeholder has a unique role in project implementation and the relevance of one over the other is subject to the need of the hour. For instance, the activities of the project would be incomplete without the formation of informal sector associations. However, for these associations to become functional and carry out the activities of collection and dismantling of e-waste, certain authorizations are required which can be achieved only through engagement with the regulatory authorities. Once the authorization process is complete, it is evident that tie – ups between the associations and generators of e-waste such as manufacturers of EEE, Industry and PSUs are established for material flow. In order for the value chain to reach a logical end, upstream vendors such as formal recyclers need to be contacted for completing the e-waste recycling process. Last but not the least, civil society organisations play an important role in spreading awareness on the issue and mobilizing the civil society towards better e-waste disposal options. Hence, every stakeholder in the entire process of channelization and management of e-waste has played an important role in project implementation.

Establishment of local partnerships has not been that difficult, especially in cities like Bangalore and Delhi where GIZ had already worked on e-waste issues in the past. However, in the cities of Pune and Kolkata, it took the project some

time to identify local partners commence project activities. In order to bring visibility to the project and identify the relevant stakeholders, stakeholder consultations were organised in the two cities, which resulted in the formation of core groups comprising representatives from NGOs, industry associations as well as local administration. The core group members in each of the two cities are in the process of developing city action plans for the implementation of project activities and division of responsibilities amongst the members.

OUTREACH AND SYNERGIES

How this project has been benefiting from the experiences from other projects (Asia Pro Eco, Asia Invest, other SWITCH projects, and previous experiences of partners)?

GIZ has worked on E-waste issues since 2004 under the Indo-German Swiss E-waste and Asia Pro Eco II – Indo-European E-waste initiative in Bangalore and Delhi respectively. Both these initiatives were focussing on setting the agenda for e-waste in terms of awareness generation, assessments, recycling infrastructure, stakeholder engagement and regulatory framework.. Toxics Link has been a pioneer organization for highlighting the issue of e-waste in India in 2003. They have played a major role in raising awareness, lobbying and advocacy for regula-tory framework. MAIT has been engaged in the e-waste issues since 2007 under the Asia Pro Eco II focussing on enhancing awareness of brands on their roles and responsibilities under a regulatory regime, lobbying and advocacy for regulations and setting up recycling infrastructure. GIZ, MAIT, Toxics Link have been engaged in developing the draft Rules for e-waste management together with Greenpeace as a consortium representing stakeholders spectrum and varied interests aiming towards an overarching goal of environmentally sound e-waste management. Adelphi the European partner has been working with GIZ on the Asia Pro Eco II – IEeWASTE project by providing international best practices and technology transfer.

What possibilities for extension and replication have you identified?

The draft rules on E-waste management will be notified by the MoEF in January 2012. The collection and channelization mechanisms developed under the project could serve as the models for the development of collection and channelization models for the implementation of the Rules. In terms of replication, the project strategy of engaging the stakeholders in a common dialogue focusing on identifying the e-waste issues specific to each city and developing mechanisms for resolving the concerns could be adapted and replicated in other Indian cities also.

What policy linkages are foreseen?

The existing draft E-waste rules focus on the principles of extended producer responsibility and RoHS. GIZ with other stakeholders has been instrumental in developing the draft e-waste rules ensuring that makes the producers liable for collection, recycling and disposal of end of life equipments. The implementation of these rules would need a road map for providing direction to every stakeholder for the implementation of individual or collective producer responsibility model. GIZ is in the process of drafting the Guidelines for implementation of the Rules which provides targeted information and role of each stakeholder under the e-waste legislative framework. The inclusion of informal sector in the formal e-waste chain for collection, segrega-

tion and manual dismantling supports the National Environmental Policy (2006, MoEF) which necessitates the incorporation of informal sector in waste management.

How is the continuity of the project achievements are guaranteed to last after the end of the project life-time?

The project has a built in sustainable approach focussing on upgrading the informal sector as registered SMEs, linkages with brands and formal recyclers and closed loop approach through recycling in a proper manner. The informal sector which was earlier very hostile towards regularization and formalization is now demanding support for up-gradation and mainstreaming. The regulatory agencies have also accepted the role of informal sector in formal e-waste recycling which paves way for sustainable approach catering to environmental, social and economic issues.

Has any cooperation and connections been established with other ongoing projects?

The International Finance Corporation (IFC) initiated a World Bank project on developing linkages of informal sector associations with the formal sector in Uttaranchal region of India. GIZ is also engaged in developing link-ages with the existing SMEs formed in Delhi under the project.

Are any local population and authorities aware of the project?

In all the four cities the project implementation unit comprises of local regulatory authority, local NGO and institutions. The close interaction of the NGOs with consumers through mass awareness programs like poster competition in schools and collection events with Resident Welfare Associations (RWAs) raises the awareness of the general public on e-waste related issues and its safe disposal. GIZ has also initiated the mass awareness campaign with Ministry of Consumer Affairs, Food and Public Distribution through mass media for enhancing awareness of consumers on e-waste issues and proper disposal.