



Summary Report  
on the  
WEEE do GHK training implementation  
Bangalore, India, 30<sup>th</sup> of March – 15<sup>th</sup> of April 2006

**For**

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## Index of abbreviations

ASEM	-	Advisory Services in Environmental Management
ASK	-	Association for Stimulating Know-How
BMZ	-	Bundesministerium für Wirtschaftliche Zusammenarbeit und Entwicklung
CSD	-	Centre for Sustainable Development
CHS	-	Convention Project on Chemical Safety
DA	-	Development Alternatives
E-Waste	-	Waste of Electric and Electronic Equipment
EMPA	-	Eidgenössische Materialprüfungsanstalt
ERM	-	Environmental Resources Management
EWA	-	E-Waste Agency
GTZ	-	Gesellschaft für Technische Zusammenarbeit
GHK	-	Good Housekeeping
HAWA	-	Hazardous Waste Management
IT	-	Information Technology
KSPCB	-	Karnataka State Pollution Control Board
MAIT	-	Manufacturers' Association of Information Technology
MoEF	-	Indian Ministry of Environment and Forests
NGO	-	Non Governmental Organisation
NPO	-	Non-Product-Output
P3U	-	Pilot Project for the Promotion of Environmental Management
PPE	-	Personal Protective Equipment
PREMA	-	Profitable Environmental Management
SECO	-	State Secretariat for Economic Affairs, Switzerland
TERI	-	The Energy and Resources Institute
ToE	-	Training of Enterprises
ToT	-	Training of Trainers
WEEE	-	Waste of Electric and Electronic Equipment

## 1. Context

Waste of Electric and Electronic Equipment (WEEE or E-Waste) is starting to become a considerable problem worldwide. Thousands of tons are obsolete every year and the figure is rising exponentially. Bangalore – being India's Silicon Valley – faces a strong challenge in dealing with this waste. Up to now large amounts of WEEE are recycled in the informal sector under health hazardous and environmentally problematic conditions in the middle of housing areas. Biggest incentive for these activities is the retrieval of gold and other precious metals which can be found in WEEE in small quantities (e.g. 2gs of gold per kg of computer scrap).

Since September 2005 the two GTZ projects Partnerships in Recycling Management, Eschborn, Germany, in cooperation with GTZ-HAWA implemented by ERM, Bangalore, India, are working on a joint intervention in the sector of recycling WEEE: training informal recyclers with the following goals: to reduce their negative environmental impact and improve the worker health and safety conditions, linking these goals with improving the business chances for the companies, with a view to organize them and formalize the companies to enter an authorized recycling chain.

This training fits in with a bigger picture:

At national level the so called E-Waste guidelines are being developed with the goal of structuring a system for recycling of WEEE within India. At the same time the larger IT manufacturing companies are developing environmental and health hazard standards for their recycling chains responding to the pressure on international consumer's markets. These facts will speed up a development towards increased market barriers for the informal recyclers while at the same time leaving the market to very few large authorized recycling units.

In this situation a multitude of actors has taken an interest in joining the approach to utilize the capacities and competencies of the informal sector: next to the international donor agencies we find state/governmental bodies and private enterprises from both, IT manufacturers and WEEE recycling, cooperating with a number of NGOs. The recently founded nodal body E-Waste Agency (EWA) unites these actors and is being considered the host for the training activities in the future.

The training itself consists of three phases: in a first phase, a Training of Trainers (ToT), a set of consultants and trainers has been prepared to implement the second phase, a Training of Enterprises (ToE), and run the necessary third phase, the follow-up of the trainings.

In this context the author has visited GTZ-HAWA in Bangalore in order to finalize the preparations, implement the trainings and initiate the follow-up.

The report concentrates on describing approach, implementation and results of the trainings as well as the organisational setup and host for the initiative, including the follow-up in the development of these aspects. It draws lessons learnt for the project "Partnerships for recycling management" and gives recommendations for future cooperation. Even though all developed training elements are contained in the report and its annexes it does not replace a training manual.

## 2. Training approach and implementation

The following paragraphs describe the underlying idea of the initiative and the objectives of each training, the concepts and material developed to achieve these goals and the way the trainings were actually implemented, including their results.

## 2.1 Goals of the approach

The goals of the approach in the WEEE recycling sector are as follows:

- Addressing the informal sector with a view to link it to the formal recycling sector:  
Enabling the micro and small enterprises of the informal sector to link up and build networks to have more market influence in order to become part of the “authorised recycling chain”
- Foster appropriate recycling and reuse of WEEE elements instead of burning or storage
- Raise awareness within the informal sector of the environmental and health hazards
- Enabling the enterprises to change for more profitable processes while reducing negative environmental impact, health risk for the workers, child labour, etc.
- Elaboration of a replicable concept to achieve above mentioned goals

Derived from these overall goals the following are the objectives for the ToE:

- Raising awareness of the informal recyclers for the environmental impacts and health risks of their practices
- Improving the current recycling processes in terms of environmental impacts and worker health and safety
- Detecting savings potentials in these improvements with the NPO concept
- Defining first measures, starting implementation and organising follow-up for the companies
- Fostering the network of enterprises to support further implementation of measures
- Establishing case studies to promote the approach

To be able to implement trainings and their follow-up in the future trainers and consultants were built-up in three steps: attending the ToT; co-moderating the following ToE and following-up with and documenting the implementation of the activities planned during the ToE.

## 2.2 Content, method and material

To achieve these goals, specific elements were developed and linked to elements and basic approaches of already existing trainings developed by GTZ-P3U and GTZ-CHM: Good Housekeeping (GHK) of the programme Profitable Environmental Management (PREMA) and Chemical Management.

The following elements constitute the ToE:

- Non Product Output (NPO) as a concept of analysing the recycling processes of the units
- Material flow charts as a way of visualising and communicating the processes in order to detect improvement potentials
- Four categories for looking at weaknesses/ benefits resp.: economic, environmental, worker health and safety related and organisational effects (triple win plus worker health and safety from PREMA), of which all are related to the first: profitability
- Steps of the GHK cycle and methodical elements for going through them:
  - Preparing and actually implementing a company visit during the training to immediately apply the knowledge gained in the training
  - detecting improvement potentials in the companies,
  - analysing their present (negative) effects – in terms of the four categories,
  - analysing causes of these improvement potentials and
  - developing measures to overcome them,
  - analysing the expected effects to prioritise the measures to be taken and
  - develop an action plan,
  - implementing the measures using the network of companies to be supported
- Specific inputs related to effects of the hazardous substances used and processes implemented currently as well as measures to be taken to avoid the dangers attached to them

- Visit to a formal recycler with explanations and discussions on process improvements
- Discussion with an IT manufacturing company to discuss future WEEE market developments and expected standards
- Approaches to financing possible investments resulting from the development of improvement measures

During the ToT all these aspects were introduced and implemented just as in the ToE. Additional to the ToE, are the following elements:

- Facilitation/moderation of all aspects above is discussed from a trainer's point of view, major exercises have documented trainer instructions (e.g. exercise Beautiful Colours)
- Specific background material for the assessment of effects of hazardous chemicals and the development of measures to improve the processes (Exercise Beautiful Colours 1 and 2, working with MSDS and with material on the selected recycling processes)
- Setting up and continuation of networks with specific moderation techniques (Action Learning Set - ALS)
- Communication with the informal sector (taxi experiment, question techniques and role play on consultancy).

To convey these elements training material was developed including handouts for the different exercises, presentations and a GHK Guide for the WEEE recycling sector (see CD, Programmes and moderation plans, Presentations, Handouts ToT and ToE).

The specific technical inputs were required to be made by the Swiss Eidgenössische Materialprüfungsanstalt (EMPA, see offer Susanne Arlinghaus, 21.02.06). A focus so far is put on the improvement of the current processes (storage and handling of chemicals, disposal methods). Due to a delay in the GTZ-EMPA cooperation agreement the budget for developing a guide on best practices and alternative recycling techniques is available only now. As a consequence there is still more material to be integrated into the training concept at a later stage (this refers to the WEEE do GHK Guide, HO Dismantling Analysis, HO Precious Metal Recovery Analysis - see annex CD, Handouts ToT; also see chapter 4.1 and Annex 7 Action Plan).

The sequence of the trainings is documented in the programmes and moderation plans (see annexes and and 5, Rough programme of ToE and ToT and in more detail in CD, Programmes and Moderation plans).

A third phase after the ToT and ToE is the implementation of the measures developed during the training. Designing this phase with the network of companies is part of the ToT and started in during the ToE. It is currently being accompanied by the newly trained trainers/consultants (see chapter 4 Follow-up and annex 7 Action Plan).

## 2.3 Implementation

### 2.3.1 Training of Trainers (ToT)

Just as envisaged the 19 participants of the ToT belonged to four groups (also refer to annex 4):

- Consultants with environmental background, e.g. staff of CSD, Saahas, Toxics link, Development Alternatives and the Anna University of Chennai  
About half of the participants participated in the training with a plan to actually carry out the activities of training and following-up the implementation in the companies.

- Consultants/staff of related organisations, e.g. EMPA Mumbai, GTZ Delhi, BCIC etc. for linking the activities closely to other groups developing training in the field  
Three participants of the ToT represent disseminating institutions. The representative from GTZ Delhi was not present at the ToT, but attended the ToE instead.
- Representatives from IT manufacturing companies  
A handful of participants belonged to the association Manufacturer's Association of Information Technology (MAIT) or individual IT manufacturing companies.  
This group was approached in order to take the opportunity to "clean up" their own informal recycling chain. Some participants of this group had different expectations, though: they expected guidelines to be able to develop their own WEEE standards. Also, MAIT intended to send more staff for participating at the full training. One reason might be that the invitations – although prepared two months in advance – were finally sent out only in the week before the training.
- Representatives from formal recyclers – E.Parisaraa  
This group contributed the recycling perspective and specific technical and market knowledge and played a key role in the following ToE.

This mixture of participants seemed appropriate to kick-start a WEEE do GHK initiative in India: it was fruitful for the "multi-disciplinary disciplinary discussions" between industry and NGO, manufacturers and recyclers, it was a mixture between implementers and disseminators as well as a good regional mixture to spread the approach. Thus it might be able to replace a ToT for a city like Chennai, as there are two trainers, one of which has co-moderated the ToE as well.

Each participant paid a fee of Rs. 2000. A fund of Rs. 25.000 was provided by MAIT. Altogether this budget covered the local costs of the training, i.e. the venue and food at the Hotel Regalies, transport to and from companies, copies and other training material.

Planned as a 5-day-training the ToT was implemented in a short version of 3 days due to a public holiday in the week of implementation which was reported by the organiser only one week before the training started. Thus, a selection of elements has been dropped, e.g. exercises to apply some of the technical inputs, techniques in consultancy and methods of planning and implementation of the follow-up. It is recommendable to keep these elements within the schedule for a next application, especially those on the follow-up, as their lack produced a certain disorientation during the first phase of follow-up.

The ToT was evaluated as "successful" and "generally satisfying" by 87,5%. The contents and interactive training methodology was appreciated (questions 25 to 36). Judging from the evaluation the message of the training got through to the participants and resulted in palpable plans - and already implemented steps - for the follow-up (questions 19-23). Basically two additional aspects desired: more specific technical input (which is currently developed as mentioned above) as well as case studies or video support. As it was the first of its kind the concrete case studies can only be developed throughout the training and its follow-up. For full questions and more information on the evaluation, refer to CD, Participant evaluation ToT.

As a result of the training the group of participants decided to start an exchange on WEEE activities and plans via E-Mail-yahoo group and use the already existing website to put up relevant documents and reports. Five of the participants co-moderated the ToE. For more detailed follow-up plans, refer to chapter 4).

### 2.3.2 Training of Enterprises (ToE)

The participants of the ToE are all part of the WEEE recycling group in Gowri Pallya. Two segments within the recycling chain have been chosen as a target group for the training, dismantling and precious metal recovery: precious metal recovery as being the big polluter and presenting strong worker health and safety problems, dismantling due to representing a big part of the sector. Both activities are covered by the group of recyclers in Gowri Pallya. The 16 participants are active in scrap dealing, dismantling and precious metal leaching. Dismantling takes place in various locations, but covers mostly the same processes, precious metal recovery takes mostly place in one location.

As opposed to previous information not all participants were literate. Consequently, some of the prepared material could not be used, other material had to be visually upgraded the week before the training started in cooperation with the new trainers. Additionally, the spread of languages understood or spoken in the group exceeded the expectations: Hindi, Urdu, English, Kannada, Tamil and Telugu, while not a single of them was shared by everyone in the participant and trainers group. Helping each other in the communication was one of the major bonding characteristics of the workshop.

The participants did not pay a fee to the workshop but organises the venue, electricity etc. for the training days. The funds provided by MAIT covered the transport and material, the trainers managed this event as part of their training for free.

The sequence of the training was adapted to public unrest starting on the day of the visit to the formal recycler. The visit had to be cut down and the last training day postponed for two days. The venue for the last training day had to be changed from the Muslim quarters to the city centre due to the bombing of a mosque in Delhi the night before. Thus, only 10 out of the 16 participants attended the last training day. Due to the strong group organisation this did not present a loss in terms of results.

The results so far exceeded all expectations: the informal companies did not only plan to implement the use of personal protective equipment to protect their own health or put in measures such as neutralizing the acids before disposing of them. They already got together to found and register an association called Eco-Birds in order to set up a new plant outside of Bangalore jointly. During the training the necessary contact with a financing institution Grameen koota was channelled. With a new plant complying with environmental and worker health and safety requirements chances are good that these formerly informal companies can continue with their businesses in the future. Also refer to annex 7 Action Plan.

No formal written evaluation was done during the ToE. The oral response was very positive though. No concrete improvements were suggested. It was recommended to extend this training to other places and the recyclers offered their help to access other informal sites to start activities.

### 3. Organisational setup and host of the training initiative

As can be seen in the description of the training initiative and the annex 2 Organisational setup, there is a multitude of partners in the project. It presents an advantage as developing and disseminating sustainably a training approach for WEEE recycling needs support from more than one party and resources from different sources. Each partner to the initiative could cover a specific role (e.g. coordination with the parallel development of legislation by GTZ, coordination with the development of industrial standards by MAIT, technical inputs for developing and integrating best practices by EMPA etc.). At the same time coordinating a multitude of actors is also a strong challenge for the project and needs to be handled systematically and locally in the future.

This is one more reason why a strong host institution is needed in the initiative (Also refer to chapter 2.4, Summary report of the WEEE training preparation, 11.01.2006 by Susanne Arlinghaus.) Institutionally this is EWA at the moment and agreed by all partners. This seems a natural situation as EWA acts as a hub between the institutions having been founded as their "nodal body".

Three concerns are still to be mentioned here: as a true hub EWA should also accommodate representatives of the recyclers which is not the case now as only one is seriously formalized. Thus, there is a fear of inviting a bias. But as soon as more recyclers are formalized, it is considered to open the representation to recyclers as well. Secondly, EWA is not a very active organisation at the moment. It relies very much on the activity of MAIT and GTZ-HAWA/EMPA at the moment. The latter aspect was discussed on the last EWA meeting and steps are planned to improve the situation (see CD, Follow-up, Proceedings EWA April 12<sup>th</sup>). Thirdly, EWA is at the moment an organisation limited to Bangalore. The training approach is planned to be disseminated to other cities though. Therefore it might be recommendable to initiate similar hubs in other cities (see chapter 6, Recommendations).

#### 4. Follow-up

The first steps of establishing a replicable training set up have been covered during this visit and further dissemination has been initiated. Main actors in the follow-up are a team of trainers and various partners in Bangalore (for participants see CD, Follow-up, Note of the BLR WEEE development team meetings), two trainers for Chennai, ASEM representative Ulrike Killguss for Delhi and EMPA representative Deepali Sinha for Mumbai. The following activities have started or been planned (for more detail see annex 7 Action plan and documents in CD, Follow-up):

##### 4.1 Further development of the method

The above described concepts and activities have shown interesting results already. Still there are lessons learnt for the development of the method and room for aspects to be integrated.

- Technical input for the target group of informal recyclers in the dismantling and precious metal recovery sectors for the description of best practices/alternative processes in a visual form
  - Photo material and short descriptions of processes (e.g. handling PPE, treatment of dangerous components, neutralisation of acids) is currently being collected and documented by the trainers and Mr. and Ms. Parthasarathy who regularly visit the sector and note the information down on the WEEE website (<http://work.e-waste.in>). The trainers and E Parisaraa have got contracts to do so (see annex 7 Action Plan and CD, Follow-up, Notes of the BLR WEEE development team meeting of 12<sup>th</sup> and 15<sup>th</sup> of May).
  - Process descriptions and further research on best practises for the precious metal recovery is done by Miriam Keller, EMPA
  - EMPA plans to finance a specialist on dismantling to develop an appropriate guide
- Technical input for other target groups in the recycling chain would need to be developed in case the approach would be disseminated (en example would be PVC burning in Delhi, see chapter Follow-up 4.4), but the task has not been assigned up to now.
- Integrating lessons learnt of the pilot trainings as well as the new material will be part of the a second application (e.g. in Delhi).

#### 4.2 Follow-up of the ToT

To follow-up the ToT two main aspects need to be covered: developing trainers to be able to implement and follow-up ToEs successfully on their own and foster the network of interested and active partners in WEEE. For both aspects activities have been developed and partly implemented already:

- In the first implementation five trainers have had the chance to co-facilitate a ToE with coaching
- Four out of these follow the training in Bangalore up and document the results to be able to acquire a licence for ToEs
- The fifth trainer from Chennai is currently preparing to implement a ToE in Chennai to be able to acquire a licence for ToEs (see Follow-up 4.4)
- A yahoo newsgroup has been established between the WEEE do GHK trainers and is more and more being used to inform each other on new developments
- The E-Waste website is being extended by Deepali Sinha, EMPA, to be used as a platform to search for trainers (<http://work.e-waste.in>).

#### 4.3 Follow-up of the ToE

During the ToE the implementation of a variety of activities was decided by the informal recyclers. Some activities can be implemented by the informal recyclers alone, for others support is needed. The following is an enumeration of the main aspects and their current status (further information in the annex 7 Action Plan and in the Notes on the BLR WEEE development team meeting, CD, Follow-up).

- Introduction of PPE, neutralisation of waste acids before disposal (also in the existing operations)
  - On site demonstrations by staff of E Parisaraa have been executed already
  - Purchasing of PPE has been assisted
- Forming an association of informal recyclers
  - An association called Eco Birds has been registered two weeks after the training
- Setting up a new plant within the group of recyclers on a plot outside of their current housing area
  - Financing institutions were involved in the training; more possibilities are being investigated
  - Contact to the Karnataka Industrial Development Board has been established to enquire about possibilities and requirements for acquiring a plot – so far financial power of the informal sector is exceeded by the demand
  - Setting up a business plan for the new plant
- Adjusting the new plant and processes to the requirements of KSPCB in order to be formalized and authorized
  - First meeting with KSPCB has been implemented by the trainers, requirements are being developed

All activities are followed-up and documented by the trainers (see annex 7 Action Plan) as part of the licence requirements for being enabled to deliver the training in the future (also see CD, Handouts ToT, 7Follow-up, HO Licence requirements). The documentation will be used in further dissemination of the approach.

#### 4.4 Dissemination in Bangalore and other cities

Bangalore

Various work groups consisting of the trainers and other stakeholders in Bangalore have been set up to follow-up with the ToE (see above) and disseminate the approach to other group in Bangalore.

- Coordination of activities in Bangalore (Wilma Rodrigues, Sahaas)

- Door opening to IT market and financing institutions etc. (Kishore Aradya, CSD and Raveendra, HAWA contract)
- Extension to other groups of informal recyclers (Kishore Aradya, CSD and Raveendra, HAWA contract)
- Facility (assisting the establishment of a new plant; Chaya Chengappa, DA, Raveendra, HAWA contract, Mr. Parthasarthy, E.Parisaraa)
- Technical input (Chaya Chengappa, DA, Thara Parthasarthy, E.Parisaraa and Wilma Rodriguez, Sahaas)

For their specific tasks, please see Notes on BLR WEEE development team meeting, May 12<sup>th</sup> and 15<sup>th</sup>, CD, Follow-up). For these tasks the consultants are contracted by GTZ with funds from the ASEM project. For the future this will be covered by MAIT.

#### Chennai

Shobbana Ramesh, CES, Anna University and with Sudhakar, Toxics link, are presently preparing a training for informal recyclers in Chennai. A rough plan and budget has been presented as an input for an overall budget (see below and CD, Follow-up, Budgetfollowupdraft) to be covered by MAIT. It is planned up to now that a ToE could take place in around three months from now with Shobbana Ramesh and Chaya Chengappa from Bangalore as trainers with Sudhakar as a Co-trainer. A set of steps need to be taken before that: refresh the contact with the informal recyclers, establish a contact with the formal recycler Trishiraya, establish contacts with local IT manufacturers etc. In parallel, the material will be developed further and integrated in the approach in Chennai.

#### Delhi

The WEEE coordinator of GTZ ASEM, Ulrike Killguss, is currently establishing contact with relevant NGO to refresh contacts in the informal recycling sector as they have been idle after having implemented the city study in Delhi. The general idea is to start with a ToT as there as no local staff trained in the Bangalore ToT. As in Bangalore a ToE would follow. The rough timing is set for a start in September.

#### Mumbai

In Mumbai currently a city study is being initiated with EMPA and UNEP. Training could be set up in coordination/cooperation with UNEP, but follows no concrete plans up to now.

#### General dissemination

As general promotion activities the following have been implemented:

An article was prepared to be published on the website (see annex 8 and <http://work.e-waste.in>).

Additionally, a local coordinator for EMPA David Roachat held a presentation on the training (See CD, Follow-up, Clean-Channels Presentation) in the following workshops:

- "WEEE\* Care ! The Vignette of achievement"- The annual WEEE Care\* seminar, Max Muller Bhavan, Bangalore on 19th April 2006 "National Workshop on E-Waste legislation to be held at Bangalore on 3rd & 4th May 2006
- TERI Workshop in Bangalore on 4<sup>th</sup> and 5<sup>th</sup> of May with the participation of international NGO, academics etc.
- TERI workshop in Delhi, 8<sup>th</sup> and 9<sup>th</sup> of May with the participation of international NGO, academics etc.

According to David Roachat the training and results so far were discussed with very good feedback from the audiences. Also the Minister of Environment of Karnataka honoured the group of informal recyclers represented by Mohammed Rizwan for their activities.

The most important step in the dissemination is developing a concept and a budget which will be negotiated with MAIT – Sunjay Handu, MAIT during EWA meeting (see Proceedings EWA, CD, Follow-up). The above mentioned activities are mirrored in this concept and budget. The budget is so far only drafted (see Budget\_followup\_draft, CD, Follow-up).

## 5. Lessons learnt for the project „Partnerships in recycling management“

As stated in the previous report the informal companies of the ToE match the target group of the project. As a conclusion from the work with this target group a set of Lessons Learnt can be deducted:

- Get into contact with the informal companies well in advance of any activity (at least three months).
- Try to crystallize groups of informal companies working together and try to find out about the “head” of the group to link up with.
- Contact them frequently with always the same person(s – not too many though) until a relationship of trust is built. Keep in mind “informal” means “illegal” for most operations, any disclosure of information to the wrong persons might be harmful to the informal businesses. As a consequence, the contact people should preferably be from independent NGO without government or controlling body relationships. Those can act as intermediaries to arrange meetings with controlling bodies after prior explanation. If possible, arrange contact through other informal groups which have been cooperating in activities already. In this sector it seems the informal companies have widespread contacts all over India which can be used to open up new regions.
- Make sure the offered activities are laid out clearly, and are matched with the needs of the informal sector carefully.
- Make sure the advantages of the offered activities are clear to the informal companies: The main incentive for any informal sector business is simple economic survival, any health, environmental or safety aspect will always be of minor priority. Lay out your activities in line with the economic aspects first. Health aspects esp. for the family or the reproductive system come second. Environmental aspects will only be interesting if they interfere with keeping up the business in a rather short term. In this group the main incentive was not receiving funds from the involved donor agencies. Information and contact to the formal market, knowledge about market developments and correct procedures was the goal of the participants.
- Assure that implementation of any training will take place as close as possible to the operating sites of the informal companies.
- The assumption that the informal companies would not be likely to come or stay long at the workshop was wrong. Work in the company location as opposed to the workshop venue was more difficult and chaotic.
- Timing for the workshop between “around 10:30” (meaning 11h) and 15h was possible and well working, while it seemed that more would have overloaded the participants. Generally speaking, the timing was discussed very closely with the participants and accorded very much with their public holidays etc.
- The more real examples of the actual contents of the training the better: starting from pictures and visualising exercises and processes, but also getting the relevant actors (in this case formal recyclers, IT manufacturers or bank representatives) to talk about standards and actually show procedures, or even invite people to see formal factories was key to the success and enhanced credibility of the trainers.
- Developing a precise action plan with the informal companies is essential for the follow-up.

- As the informal activities work very much within the group in this specific case, all development of measures and activities was rather based on the group or larger sub-groups (e.g. all the dismantlers) as opposed to individual companies/production locations.
- Close follow-up with the same facilitating people is necessary. Group network meetings should be arranged fortnightly or monthly at the most.
- As a result it can be said that integration in the formal recycling system is a real incentive for the companies and a plan for their future – even though taxes and controls etc. will be part of the new status.
- Documentation will not be done by the informal companies. All formalities should be supported by the facilitators.

## 6. Recommendations

Apart from obviously implementing the follow-up activities planned already a set of recommendations can be made on the basis of the limited experiences in the cooperation so far.

- Documentation and implementation of planned measures first: the training was a success in energizing its participants (trainers, consultants and companies) and focus them to act. This energy has to be channelled first to implement and document. Documentation of the first application is vital for any other dissemination.
- Finalizing the development of a replicable method: it is recommendable to establish a manual only after having integrated the pending material, evaluated the results of the current implementation and implemented another training. It could be set up as an open compilation of possible programmes for specific target groups with the relevant training material including varying technical inputs (to be amended).
- Cautious dissemination strategy: Various areas of dissemination are required in the long run: dissemination to more segments of the recycling chain (e.g. PVC cable burning), to more cities in India (e.g. Chennai), to other countries (e.g. China). In view of the capacities of the active organisations at the moment there is a strong danger of initiating too much at the same time. It might be good to focussing the power to a few priorities first with a long time plan for other priorities.
- Install a coordination and communication platform: Just the mere number of activities planned, the number of organisations and sites involved indicates that a good overall coordination and communication is needed. So far these general activities are met by the different agencies of international cooperation (GTZ, EMPA). They need to be transferred to local hands. These challenges cannot be covered by an organisation as the existing EWA as it is only covering Bangalore. A solution for the future has to be discussed. Ideas could be an office in MAIT as it has representations in all the areas, even though it might represent a bias. It could be a national Indian EWA, which does not exist up to now. It might be replaced by a well working communication platform with the participation of a selected number of “hub” institutions for each region or group of actors.
- Strengthen EWA as a broker between all actors interested in the recycling sector in Bangalore: EWA is a very interesting institutional idea for promoting and disseminating the approach as well as fulfilling a lot of other functions concerning e.g. drafting the law. Up to now the driving force for its activities is uttered by the individual organisations, less through EWA. First steps have been taken already, e.g. strengthening its visibility by developing a logo and starting to set up a website (see Proceedings EWA 12<sup>th</sup> of April and options for logos, CD, Follow-up).
- Involve the new association of informal recyclers Eco Birds as soon as possible in EWA activities and discussions on the new Act/Notification on WEEE recycling. The sooner it becomes visible that getting organised in the sector gives the informal sector a voice the more probable that other parts of the informal sector will build networks as well. Chances rise that a substantial part of the

informal sector might formalise and stay in the sector. Also visibility towards the governmental organisations is strengthened.

- Foster founding EWAs all over the Indian cities to be the hosts and hub for other cities
- Utilize the driving force of MAIT: MAIT is a very keen actor with a lot influence and financial power. They can be used to convince more actors in the field, be they individual member companies or even associations covering segments producing WEEE which are not covered by MAIT.
- Financing dissemination: as members of MAIT benefit from the approach MAIT is a valuable local partner for financing the approach. Catering their needs as long as matching the goals would be a priority.
- Launch an environmental award for the most successful companies: an officially recognized award (as has been given by the Minister of Environment of Karnataka to the Eco Birds) might be an additional incentive to install for the completed implementation of certain measures judged by specific criteria.
- Foster the cooperation with formal recyclers such as E Parisaraa in the training approaches and for business relations: in addition to technical inputs and presenting a palpable example E.Parisaraa can be a very interesting partner in establishing business relations with the informal sector. Ideas could be E.Parisaraa as a buyer of dismantled goods for gold recycling or providing the patented clean methods to the now informal recyclers on a licence fee base.

## Annex

1. List of activities
2. Organisational setup
3. Rough programme Training of Trainers (ToT) WEEE do GHK
4. Participant list Training of Trainers (ToT) WEEE do GHK
5. Rough programme Training of Enterprises (ToE) WEEE do GHK
6. Participant list Training of Enterprises (ToE) WEEE do GHK
7. Action Plan to follow up the WEEE do GHK Training
8. Article on the WEEE do GHK training event for the website
9. Programmes (Mind Maps and detailed moderation plans of the Training of Trainers (ToT) and the Training of Enterprises (ToE, both on the CD)
10. Detailed lists of participants (CD)
11. Training material (handouts, presentations on the CD)
12. Reference material distributed at the ToT (CD)
13. Certificates distributed to the trainers and companies (CD)
14. Photo documentation of the trainings (CD)
15. Documents concerning the follow-up activities (CD)
16. Copy of the presentation on the training activities by David Rochat held at a meeting of WEEE CARE in Bangalore (CD)

## Annex 1 List of Activities

Mon 20 <sup>th</sup> -Fri 24 <sup>th</sup>	Preparation of training and training material, venue, flyers, invitations
Mon 20 <sup>th</sup> 14:30-18:30h	Discussion of training and changes as well as planning of schedules in the office in Bangalore
Tue 9 <sup>th</sup> 14h-18h	Visits at Ash recyclers and in Gowri Pallya to invite the companies and make sure that visits are possible during the ToT phase
Sun 26 <sup>th</sup> 10-17:30	Preparation of the venue Regaliees Hotel
Mon 27 <sup>th</sup> – Wed 29 <sup>th</sup>	Implementation of the ToT at Regaliees Hotel
Thu 30 <sup>th</sup>	Preparation of documentation (ToT)
Mon 3 <sup>rd</sup> – Sat 8 <sup>th</sup>	Preparation of ToE material, translations, trainers, venue etc.
Mon 3 <sup>rd</sup> 10:30-15h	Preparation of roles and responsibilities with the trainers, including for changing the setup and material towards a ToE for illiterates
Tue 4 <sup>th</sup> 10h-12:30h	Discussion with Mr. Henkel ZdH/Sequa for supporting the association building of WEEE recyclers in Gowri Pallya
Wed 5 <sup>th</sup> 16h-19:30h	Discussion of financing possibilities for investments in Gowri Pallya after the training with Mr Suresh, Grameen Koota
Thu 7 <sup>th</sup> 13h-17h	Preparing training with the group of trainers
Thu 7 <sup>th</sup> 17h-19:30h	Preparing translations with the translator
Sat 8 <sup>th</sup> 10h – 13h	Preparing translations and copies with the translator
Sun 9 <sup>th</sup> - Sat 15 <sup>th</sup>	Implementation of the ToE, Sun 9 <sup>th</sup> at a venue in Gowri Pallya, Mon 10 <sup>th</sup> in individual companies, Wed 12 <sup>th</sup> at E.Paisaraa, Sat 15 <sup>th</sup> at Public Utility Building in Bangalore Centre
Thu 13 <sup>th</sup>	Evaluation and planning of follow-up with David Rochat (EMPA) and Ulrike Killguss (GTZ-ASEM, Delhi)
Sat 15 <sup>th</sup> , 14h-15:30h	Evaluation and planning of follow-up with Jürgen Porst, HAWA-GTZ
Sat 15 <sup>th</sup> 15:30-17h	Evaluation and planning of follow-up with trainers

## **Annex 2 Organisational setup**

Actors from very different angles play a role in this intervention. A description of most actors has been documented in the report on the training preparation and will not be repeated here. This description will concentrate on the role for the current training and its follow-up. (Also refer to Summary report of the WEEE training preparation, 11.01.2006 by Susanne Arlinghaus.)

### **Gesellschaft für Technische Zusammenarbeit (GTZ) financed by Bundesministerium für Wirtschaftliche Entwicklung und Zusammenarbeit (BMZ)**

GTZ promotes various projects in the field of WEEE. From the head office in Eschborn "Partnerships for Recyclingmanagement" supports and finances the development of a training approach for the informal recyclers. In India the programme GTZ-ASEM coordinates the Indian activities in the field, works closely together with the Ministry of Environment and Forests (MoEF) to coordinate the development of a WEEE legislation, the so called E-Waste Guidelines. GTZ-HAWA drafted this legislation and both organised a workshop recently to discuss the draft with the main important actors including government, industry and NGOs (see chapter 4.4). ASEM and HAWA have initiated studies to investigate the WEEE recycling situation in the cities of Delhi, Chennai and Bangalore. On their basis the training interventions will be started. HAWA supported the organisation of the WEEE do GHK training with office backup, sending out invitations etc. ASEM offered to finance the follow-up and documentation activities in Bangalore (see chapter 4)

### **Eidgenössische Materialprüfungsanstalt (EMPA) financed by Swiss State Secretariat for Economic Affairs (SECO)**

EMPA was active in the field of WEEE for years not only in India with GTZ but also in China on the basis of their experience in Switzerland. EMPA has supported the training preparation and implementation mainly through their local coordinator David Rochat in Bangalore. For the training approach they are delivering technical inputs (also refer to Summary report on the WEEE training preparation, 11.012006, Action Plan). In the preparatory phase it was not possible to give the full technical input as the cooperation agreement between GTZ and EMPA was not signed. There are more aspects under preparation now to be integrated at a later stage into the approach (also refer to chapter 4.1).

### **Karnataka State Pollution Control Board (KSPCB)**

KSPCB is a partner to GTZ-HAWA. They are also part of EWA. As an actor for the training they are being informed on the process constantly, they support the idea and activities generally but not actively. An important role of KSPCB is defining requirements for the authorization of WEEE recyclers. A debate on these requirements was initiated between the recyclers, trainers and KSPCB representatives (see chapter 4.3).

### **Manufacturer's Association of Information Technology (MAIT)**

MAIT has always shown great interest and active support. MAIT South (for the southern part of India) is part of EWA and pushes EWA activities strongly. Their interest is to establish a clean WEEE recycling channel quite soon. Common industry standards are therefore under development. The legislative proposals are commented by MAIT with great interest. MAIT South sponsored the training initiative with 25.000 Rs. and intends to spend more on the dissemination of the training approach (see Proceedings of EWA meeting, CD, Follow-up). Therefore a budget is currently set-up (see chapter 4.4). As they are a decisive partner they should be strongly involved in further developments of the dissemination. EMPA considers the possibility of positioning their local coordinator into the organisation of MAIT.

### **Individual IT manufacturers**

A selection of individual IT manufacturers has already formulated or is currently formulating standards for their WEEE recycling activities (see CD Reference material, company standards). Moreover, some are especially active in supporting the training activities for WEEE recyclers. WeP Peripherals, Wipro Technologies, IBM and HCL infosys have not only sent staff to the ToT, but WeP Peripherals and Wipro Technologies even offered to participate in the ToE to establish a contact between the informal recycling scene and the formal WEEE market and explain their vision of a future market as well as their requirements.

### **Formal recyclers: E Parisaraa**

E. Parisaraa is currently the only formal recycler managing the full recycling chain trying to cooperate with suitable partners and upgrading them when their processes do not cover the required standards. Ms Parthasarathy, partner in the company and wife of the owner, participated actively at the ToT with one more staff member. She took part as a trainer and resource person (for use of PPE, process improvements and knowledge of the IT and WEEE market) in the ToE and the company offered to be a partner for the follow-up of the ToE. Additionally, they are contracted for developing the technical content of the training further and following-up the ToE as part of the group of trainers (see chapter 4). These activities are in line with a Public Private Partnership established between the company and GTZ.

### **Informal recyclers – Eco Birds**

A city study on Bangalore's informal WEEE recycling activities gives an overview of the situation (available at GTZ-HAWA). On this basis contacts were established to the informal recycling sector in Gowri Pallya to create the first WEEE do GHK group approach. The group comprises dismantling and precious metal recovery and the sectors work very closely together around one major player, Mohammed Rizwan. In the course of the training the group decide to found an association called Eco Birds (see 4.3).

### **Non Governmental Organisations (NGO)**

Various NGO are active or even specialised in the field of WEEE. Major partner for the development of the training is Saahas with Wilma Rodriguez who contacted the informal recyclers and built the bond to prepare the training. Saahas as well as the Centre for Sustainable Development (CSD) are part of EWA. Development Alternatives (DA), Toxics Link, Association for Stimulating Know-How (ASK) and The Energy and Resources Institute (TERI) have worked in the area and taken part in the Training of Trainers. For Bangalore trainers of Saahas, CSD and DA are responsible for the follow-up and training dissemination. For Chennai Toxics Link seems to be a relevant partner for the development of the training, in Delhi contacts are being established to Toxics Link and DA.

### **EWA**

The nodal body E-Waste Agency, EWA, was founded by representatives of Central Pollution Control Board, GTZ-HAWA, EMPA, MAIT, Phillips as the only individual company and CSD committing voluntarily to setting up and electronic waste system for Bangalore. Officially the training was hosted by EWA, but actually some of its single members are more active than the institutions as such.

During the last EWA meeting a set of steps was planned to strengthen EWA, e.g. to make it more visible as an organisation (see CD, Follow-up, Proceedings of EWA 12<sup>th</sup> of April and EWA logo options). EWA is the host of the WEEE do GHK training initiative.

This is not a full enumeration of actors in the field, e.g. an organisation like **Bangalore Chamber of Industry and Commerce (BCIC)** are also currently developing WEEE recycling standards for their members and thus have participated in the training. Still they are neither partners to the initiative nor

especially active up to now. Apart from those we have indirect actors: **GTZ-P3U** and **GTZ-CHS**, having developed training programmes which have formed the starting point for the WEEE training.



### Annex 3

#### Rough Programme Training of Trainers (ToT) for WEEE do GHK (see detailed programme on the CD ROM)

	Monday, 27 <sup>th</sup> of March	Tuesday, 28 <sup>th</sup> of March	Wednesday, 29 <sup>th</sup> of March
1 <sup>st</sup> session	Introduction into Workshop and concepts	Preparation of the company visit 2: Presentations of the checklists by participants	Evaluation steps 3 and 4: Causes and Measures
2 <sup>nd</sup> session	NPO concept: Beautiful Colours exercise	Preparation of the company visit 3: Preparing a work plan for the visit	Evaluation step 5: Economic effects
3 <sup>rd</sup> session	Preparation of the company visit 1: Introduction into WEEE do GHK and the Guide	Company Visits	Evaluation step 5: Environmental, organisational, workplace health and safety aspects Elaboration of an Action Plan
4 <sup>th</sup> session	Intro into the PREMA consultancy approach – Taxi experiment	Evaluation of the company visit steps 0, 1 and 2: consultants' communication, improvement potentials	Networking in the WEEE recycling sector Follow-up of the training and evaluation

#### Annex 4 Participant list of WEEE do GHK Training of Trainers (ToT) (see detailed list on the CD ROM)

SL.NO.	NAME	COMPANY
1	Ms. Vishakha Das	WeP Peripherals Ltd, <b>B'lore</b>
2	Mr. Naveen	CSD, <b>B'lore</b>
3	Mr. Kishore	CSD, <b>B'lore</b>
4	Ms. Wilma Rodrigues	Saahas, <b>B'lore</b>
5	Mr. Sudhakar	Toxics Links, <b>Chennai</b>
6	Mr. Nanda Kumar	MAIT, <b>B'lore</b>
7	Ms. Parthasarathy	E-Parisara Pvt Ltd, <b>B'lore</b>
8	Ms. Shobhana Ramesh	CES, <b>Chennai</b>
9	Mr. Ravindra	GTZ, <b>B'lore</b>
10	Ms. Chaya Chengappa	Development Alternatives
11	Mr Dhirendra M Naidu	Wipro Technologies, <b>B'lore</b>
12	Mr Guru Kishan	Wipro Technologies, <b>B'lore</b>
13	Mr Vivek Poonacha	Cicada Media, BLR (BCIC)
14	Mr. Anatha B.	E-Parisara Pvt Ltd, <b>B'lore</b>
15	Mr. Vittal Kumar A Dhage	IBM India Pvt. Ltd., Bangalore
16	Mr. K. Kulothugan	ASK, <b>Gurgaon</b>
17	Mr Srinivas C	HCL infosys Ltd. Pondicherry
18	Ms Deepali Sinha	EMPA, Mumbai
19	Ms Chetana	GTZ HAWA, BLR

**Annex 5**

**Rough Programme Training of Enterprises (ToE) for WEEE do GHK (see detailed programme on the CD ROM)**

	<b>Sun, 9<sup>th</sup> of April</b>	<b>Mon, 10<sup>th</sup> of April</b>	<b>Wed, 12<sup>th</sup> of April</b>	<b>Sat, 15<sup>th</sup> of April</b>
1 <sup>st</sup> session	Intro into Workshop and concepts	Work in companies: Nadeem and Rizwan	Visit at E.Parisaraa: Watching authorized processes, discussing clean processes	Setting up an Action Plan for the group of companies
2 <sup>nd</sup> session	Elaborating company flow charts			Discussion financial arrangements with Grameen koota
3 <sup>rd</sup> session	Demonstrating effects of hazardous substances and processes and possible measures	Work in companies Sameer and Kadeer		Final lunch and certification ceremony

**Annex 6 Participants of WEEE do GHK Training of Enterprises (ToE) (see detailed list on the CD ROM)**

<b>NO.</b>	<b>NAME</b>	<b>DESIGNATION</b>	<b>COMPANY</b>
1	Mr. Kishore	Trainer	CSD, <b>B'lore</b>
2	Ms. Wilma Rodrigues	Trainer	Saahas, <b>B'lore</b>
3	Ms. Parthasarathy	Resource Person/Trainer	E-Parisara Pvt Ltd, <b>B'lore</b>
4	Mr. Anatha B.	Resource Person/Trainer	E-Parisara Pvt Ltd, <b>B'lore</b>
5	Ms. Shobbana Ramesh	Trainer	CES, <b>Chennai</b>
6	Mr. Ravindra	Organiser/Trainer	GTZ, B'lore
7	Ms. Chaya Chengappa	Trainer	Development Alternatives
8	Mr Dhirendra M Naidu	Resource Person	Wipro Technologies, <b>B'lore</b>
9	Mr David Rochat	Resource Person	EMPA, Bangalore
10	Ms Ulrike Killguss	Resource Person	GTZ ASEM, Delhi
11	Mr Mohan	Resource Person	Grameen Koota
1	Mr Mohammed Rizwan	Participant	
2	Mr Adil	Participant	
3	Mr Sharik Moula	Participant	
4	Mr Sharief	Participant	
5	Mr Sameer	Participant	
6	Mr Qadir	Participant	
7	Mr Asif	Participant	
8	Mr Ryiaz	Participant	
9	Mr Afroz	Participant	
10	Mr Azgar	Participant	
11	Mr Afzar	Participant	
12	Mr Fayaz	Participant	
13	Mr Nadeem	Participant	
14	Mr Farkhan	Participant	
15	Mr Ansar	Participant	
16	Mr Moustaq	Participant	

**Annex 7 Action Plan to follow up the WEEE do GHK Training of Enterprises (ToE)**

Objective	Activity	Responsible	Deadline
Follow-up of ToE	Demonstration of leaching without mercury and neutralisation of waste acids	Mr Parthasarathy	16 <sup>th</sup> of April
	Identify PPE (1 set as examples for demonstration)	Thara	16 <sup>th</sup> of April
	Consult in formation of association (Trust as of 1882 Act or Society as of 1960 Act)	Raveendra Mr Henkel	20 <sup>th</sup> of April, Thursday, 11 am
	Decide of the form of organisation	Rizwan and group	thereafter
	Purchasing material	Wilma and group	24 <sup>th</sup> of April
	Elaboration of an action plan to implement "no mercury leaching" and neutralisation of waste acids	Wilma and group	24 <sup>th</sup> of April
	Organize network meeting (NWM) <ul style="list-style-type: none"> <li>• Invite official of KSPBS to NWM to explain criteria for authorization through KSPCB</li> <li>• Invite official of KIDB</li> <li>• Invite Dhirendra from Wipro or Vishaka Das from Wep to explain WEEE recycling business standards</li> </ul>	Wilma  (through HAWA)	20 <sup>th</sup> of May
	Identification of land	Rizwan	End of April
	Elaboration of an action plan to set up the new plant (business plan, technical plan etc.)	Trainers, HAWA, EMPA, Rizwan etc.	thereafter
	Prepare financing of land and new plant <ul style="list-style-type: none"> <li>• Legalize organisation</li> <li>• Formulate proposal</li> </ul>	Trainers with Rizwan and group as well as Mohan/Suresh	thereafter
	Document all cases created through the WEEE do GHK training in the group of companies according to format for marketing	Wilma, Chaya, Kishore (Raveendra)	ongoing
Follow-up of the programme	Preparation of the contracts for the consultants (2-3 days per month for 3 months first for Kishore, Wilma, Chaya, Raveendra)	HAWA team, Jürgen Porst	As soon as possible
	Burn, multiply and send CDs of the ToT and send to the participants	Sajitha	As soon as possible
	Burn, multiply and send CDs of the ToE and send to the trainers (Wilma, Chaya, Kishore, Raveendra, Shobbana, and 2-4 copies to the participants, via Raveendra or Wilma)	Sajitha	As soon as possible
	Establish News Group at Yahoo for the trainers	David	4 <sup>th</sup> of April
	Complement website with trainer info/profiles,	Deepali	Mid May
	Elaborating a plan to disseminate WEEE do GHK in India and prepare a budget for MAIT	David, Wilma, Kishore, Chaya, Raveendra, Ulrike with Shobbanas input (who else should be invited?)	24 <sup>th</sup> of April first meeting
	Keep Grameen koota posted on the developments in the group of companies	David/Wilma/Raveendra	ongoing
	Report on ToE for trainer website to Deepali	Suse	3 <sup>rd</sup> of May
	Provide formats for profiles of trainers for the website	Suse	3 <sup>rd</sup> of May

	Report and documentation on WEEE do GHK training activities to Günther Wehenpohl and Sandra Spies	Suse	13 <sup>th</sup> of May
	Develop visual WEEE do GHK Guide	David	?



## Annex 8 Article on the WEEE do GHK training event for the website

### WEEE do GHK - Cleaning up the informal recycling channels

Waste of Electric and Electronic Equipment (WEEE) is starting to become a considerable problem worldwide. Thousands tons are obsolete every year and the figure is rising exponentially.

Bangalore – being India's Silicon Valley – faces a strong challenge in dealing with this waste. Up to now large amounts of WEEE are recycled in the informal sector under health hazardous and environmentally problematic conditions in the middle of housing areas. Biggest incentive for these activities is the retrieval of gold and other precious metals which can be found in WEEE in small quantities (e.g. 2gs of gold per kg of computer scrap).

Only 1 formal recycler, E. Parisaraa is currently authorised for recycling WEEE. But its capacities are far too small to handle all WEEE produced.

As a consequence, large national and international companies like IBM, Phillips, TYCO, Wipro or WepPeripherals are interested in enlarging the capacities of clean recycling as they foresee standards for this recycling chain rising both from the legal and the consumer's angle.

This was the starting point for the international cooperation agencies, the German GTZ and the Swiss EMPA to initiate a training programme for the informal recyclers in order to upgrade them, support them to formalize their businesses and enter the authorized recycling chain: WEEE do GHK – Recyclers of WEEE do Good Housekeeping (GHK). The newly funded E-Waste agency EWA organized the training with a multitude of cooperation partners such as the IT manufacturing industry's association MAIT, the authorized recycler E. Parisaraa, KSPCB and the NGOs Saahas and CSD.

The first Training of Trainers (ToT) from March 27-29 was attended by 19 consultants from Bangalore, Chennai and Mumbai, of whom five co-facilitated the following 4-day Training of Enterprises between April 9 and 15.

Basis of the method is focussing on the profitable aspects of complying with environmental and worker health and safety standards. Therefore 16 participants from the informal sector analysed the improvement potentials in the companies with the help of the Non-Product-Output concept and material flow charts. All present negative effects in terms of economic losses, environmental and health hazards as well as organisational weaknesses are explained, their causes analysed and measures developed. Apart from analysing their own current operations one major source for improvements was a visit to the authorized recycler E. Parisaraa. The participants prioritised their measures and put up an action plan for their future activities on the last day of the workshop.

The results so far exceeded all expectations: the informal companies do not only implement the use of personal protective equipment to protect their own health or put in measures such as neutralizing the acids before disposing of them. They already got together to found an association in order to set up a new plant outside of Bangalore jointly. During the training the necessary contact with a financing institution Grameen koota was channelled. With a new plant complying with environmental and worker health and safety requirements chances are good that these formerly informal companies can continue with their businesses in the future.

Apart from following-up with this set of companies the task obviously is to disseminate this approach throughout Bangalore and, moreover, India. Consequently, the trainers are currently setting up a plan to be co-financed by MAIT in order to offer training to informal recyclers in Chennai, Mumbai and Delhi.

Having these training structures in place will ease disseminating the new legal requirements once they are in place.

For more information please contact:

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