

**CTCN Knowledge Management System in a Snapshot – As of 1 March 2016**

Use of the CTCN’s external website, *ctc-n.org*, has steadily increased over the past year while content has been enhanced and the site’s architecture updated. Additions to the knowledge management system’s internal functionality are further supporting CTCN staff and partner collaboration on technical assistance, capacity building and the delivery of other key service areas.

**Website Users and Traffic**

Visits to *ctc-n.org* have increased from 1.700 visits per month in February 2015 to 31.000 visits per month in Feb 2016.

	Q1 2015	Q2 2015	Q3 2015	Q4 2015	2015 Total
<b>Website visits per quarter</b>	5.643	53.186	78.910	100.629	238.368

Table 1. User visits to the CTCN website per quarter in 2015

**Content Development**

**Website redesign:** The updated visual design and architecture of the CTCN external website as per user feedback was implemented. Among the enhancements is a technical assistance dashboard which enables the public to track technical assistance request status and view the distribution of requests by sector and region in real time. Charts are printable and downloadable. Further refinements are being made in 2-3 week “sprints”.



Figure 1. Redesigned *ctc-n.org* homepage



Figure 2. CTCN technical assistance dashboard now publicly available on *ctc-n.org*

**Knowledge partnerships:** The CTCN co-hosted a Climate Knowledge Brokers event at COP21, encouraging existing climate knowledge initiatives to collaborate more closely in order to make data and information more accessible to stakeholders and to more efficiently utilize resources.

**Technology Library:** The first phase of the Technology Library has been implemented. Utilizing the CTCN taxonomy developed in 2015, various adaptation and mitigation technology categories from have been populated with descriptive information provided by existing knowledge initiatives. For example, through a partnership with the ClimateTech Wiki, the CTCN is now able to create greater visibility for this existing information and pair it with other relevant examples of technology use.

Recycling is a process which reconsiders the current life cycle of creating products and materials and associated process and final waste. Specifically, paper recycling is the process of recovering waste paper and remaking it into new products. Recycling provides several socio-economic development benefits as well as environmental benefits.

**Introduction**

According to the European Commission (9 November, 2005) "waste means any substance or object which the holder discards or intends or is required to discard". "Recycling materials and products - that are considered waste - is an ancient practice which shows that in times of resource scarcity (i.e. shortage of virgin materials) societies attach more economic and spiritual value to their own waste. This implies that throughout time the definition of waste can change as well. Generally speaking larger use or re-use of materials and products this is often equally to cover a society's needs. To put it differently, recycling is a process which reconsiders the current life cycle of creating products and materials and associated process and final waste. Ideally, products and materials should be designed, produced, used and disposed in such a way that they can be completely re-used and/or recycled effectively and efficiently. There are many waste types, such as basic materials (i.e. glass, paper, steel, aluminium, construction materials and plastic but also metal, hazardous and chemical wastes, but also end-of-use waste products (i.e. e-waste, furniture, cars and textiles) that can be re-used or recycled.

A hierarchy of waste management options exists, giving preference to certain measures and placing other measures as a last resort full back option. The European Union maintains a hierarchy of waste management in which it distributed the preference over waste prevention, re-use, recycling, recovery of energy and the use of landfills to dispose of wastes from which no further value can be recovered (Smith et al., 2005). This hierarchy is illustrated in Figure 1. The hierarchy positions waste prevention at the top of measures of waste management. After all, preventing the waste all together is an effective measure waste management. After waste prevention, the European Union outlines that re-use of the product in its current form is the preferred measure. This is based on the notion that minimum waste management is required if the product can be directly re-used without undergoing any processes (only collecting of the product and transporting it back to the producer). After that, recycling is seen as an important waste management measure. Recycling allows for efficient use of waste, but does require an extensive waste management process to convert the product back into useable components for other products. The lower tier waste management measures do not require an extensive waste management process, primarily limited to collection and separation of the waste, but do result in negative environmental consequences.

Figure 1. Hierarchy of waste management as advised by the European Union (click image to enlarge)

More specifically, the process of paper recycling is the recovery of waste paper products and reprocessing these into new products. For example, paper waste products can be recycled into lower-quality bathroom paper. With recycling, it is not possible to deliver a same quality product as the original waste paper product. In other words, quality losses are inevitably incurred within the recycling process. In the case of paper products, this generally means that fibre strength and length are reduced.

Considerable energy savings are possible within the pulp and paper sector through effective and efficient recycling practices. The paper and pulp sector is the fourth-largest industrial sector in terms of energy use worldwide, consuming approximately 164 Mtoe of energy in 2007 which correlates to about 5 % of the total global industrial energy consumption (EA, 2009).

The general process of paper making combined with the recycling process is illustrated in Figure 2. As can be seen, the paper recycling process consists of essentially five key steps:

- After product usage and disposal, it is important to collect the material.
- For paper recycling, it is critical to sort the waste products into a variety of subcategories. The sorting of the waste products prevents contamination of the recycling process.
- Pulping of the waste paper products, in which the solid waste paper products are processed into a pulp, allows the process stream to feed back into the paper making process.
- Before the recycled product can be transported back into the paper making process, in which it will combine with new material to result in new paper products, it is important to de-ink, clean and screen the recycled

Figure 3. Example of technology entry from the CTCN Technology Library: Advanced paper recycling

## Technical Development

**Virtual Office:** An internal workspace was implemented for CTCN staff and partners across numerous countries to collaborate online through shared document management, task management and event/milestone calendars.