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Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

On Behalf of:



Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

of the Federal Republic of Germany

Fostering Adoption of Building Products made from Construction and Demolition (C&D) Waste in India


Dr. Abhijit Banerjee
GIZ-India

8th GRIHA Summit 2017
New Delhi


March 2, 2017

GRIHA Summit 2017

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Indo-German “Resource Efficiency” project

- Indo-German Bilateral Cooperation between German BMUB and Indian MoEFCC
- Implemented by GIZ-India
- Partnership Landscape


	German knowledge partners	Indian knowledge partners
	 	 
	Mobility	Construction
		

- Selected Sectors
- Indian Resource Panel


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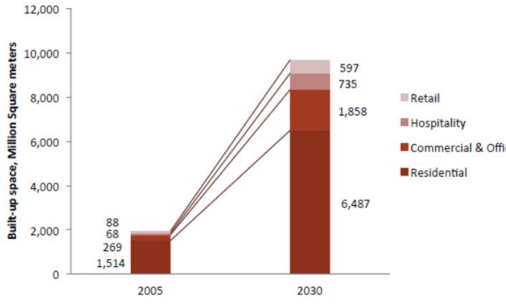
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Construction industry situation in India




Year	Residential	Commercial & Office	Hospitality	Retail
2005	1,514	269	68	88
2030	6,487	1,858	735	597


- Highest material consuming sector
 - sand, soil, stones, cement
- Booming demand leading to extraction pressures
- Current sand demand ~ 1,000 MT/y; aggregate demand ~ 1,300 MT/y
- Already facing resource constraints, price shocks, environmental bans

Source: GIZ, 2015. Resource Efficiency in the Indian Construction Sector: Market Evaluation of the Use of Secondary Raw Materials from Construction and Demolition Waste. New Delhi: GIZ.

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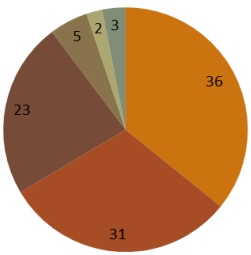
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C&D waste situation in India



Material	Percentage
Soil, Sand & Gravel	36%
Bricks & Masonry	31%
Concrete	23%
Metals	5%
Wood	2%
Others	3%

Source: TIFAC, 2001

- Widespread illegal dumping
 - environmental problems
 - waste of resources
- C&D waste generation in Delhi:
 - 4,000-5,000 TPD (1.5-2 MT/year)
- M-sand (from granite) is already a competitive industry


Best Practice: Germany

- ~ 90% of CDW reused
- Landscaping, earth works, civil eng., structural

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C&D waste utilization in India


2000 + 500 TPD Delhi plants
(since 2009/2015)

300 TPD Ahmedabad plant
(since 2014)

Construction and Demolition Waste Rules 2016
MoEFCC



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C&D waste based products






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Challenges for C&D waste based products

- Business case
- Market uptake
- Product quality concerns

Government interventions	Market strategies
Land and set up incentives (PPP)	Eco-labeling and certification
BIS standards (IS 383)	Industry awareness
CPWD guidelines	
Public procurement	
Sales tax rebate	

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Certification of C&D waste based products



- Accredited in EU for third-party certification of a wide range of green products, buildings, management systems
- Certification as per ISO protocol
- Environmental Product Declaration (EPD) claims validation
 - e.g. recycled content
- MoU with GRIHA Council

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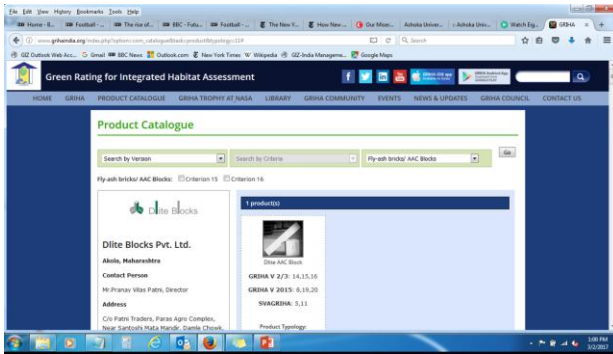
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Role of GRIHA Product Catalogue



- High visibility/publicity
- High credibility
- Government recognition
- Advantage in adopting listed products

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Way forward

- Certification of broader range of product attributes
- Awareness and capacity development of private sector
- Capacity development for municipal officials (GIZ Training Manual)


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Acknowledgements



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