



emc

Ash-to-Wealth

Finding Environment Friendly Economics

By

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Content

- About Environment Management Centre (EMC)
- Current status of Fly Ash Utilization
- New Approach- Ash to wealth
- Existing wealth Avenues
- What next?



About EMC

A Strategic Management Consulting company established in 1996

26 Years

National Roots

International
Experience

600+ Projects

16 Geographies

We Specialize in ESG/ Sustainability/ CE

Some of Our Esteemed Clients



adani



CORPORATES



fractal



Some of our Esteemed Clients- FIs and Development Institutions



FINANCING INSTITUTIONS & FUNDS



Some of our esteemed clients – Governments and UN Agencies



Some of our esteemed clients – Others



THINK TANKS

PHILANTHROPIC ORGANIZATIONS

ACADEMIA

INDUSTRY ASSOCIATIONS

what we do

Emerging Areas & Challenges,
Capitalizing Opportunities



Some Recent Projects in ESGMS – Financial Institutions

Kathari Water Management Pvt. Ltd. [2021 ongoing]

Kotak Infrastructure Investment Limited [2021 ongoing]

Kotak Real Estate Fund [2021 ongoing]

ESSKAY Fincorp [2021 ongoing]

Utkarsh Small Finance Bank [2021]

Health Quad Advisors [2021]

Electronica Finance Ltd. [2020-21]

Comparative Assessment of Reference Frameworks for ESMF Update for **NIIF** [2020]

JC Flowers India Opportunity Fund [2020]

HDFC Property Ventures Ltd. [2020]

Indifi (Digital Finance Company) [2019-20]

Samunnati Finance [2019-20]

Equitas Small Finance Bank [2018-19]

ESMS Review of Evercare Health Fund [2021-22]



Design & Establishment of ESMS, & support for implementation:

- **IIFL Asset** Management Ltd. (housing fund) [Retainer 2018-20, 2020-22]
- **Lok Capital** (an impact investor) [2018-20]

Conduct of ESDD and Annual Monitoring of investments for **Omnivore Capital** under the ESMS [Retainer 2018-20, 2020-22]

Design & Establishment of ESMS, Quarterly Review & Training in **India Infoline Finance Ltd.** [2016-17, 2018-19, 2020-21]

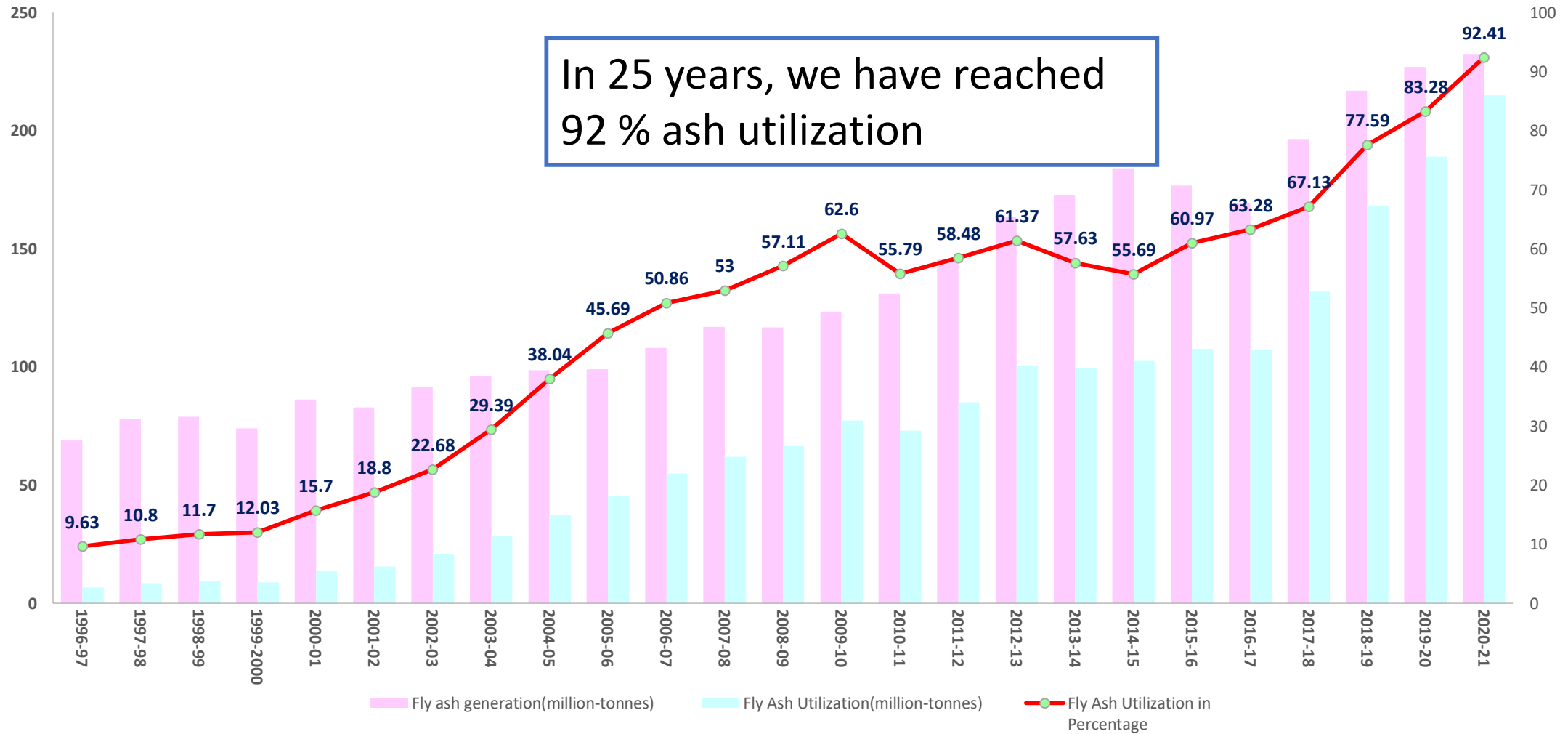
Umbrella Program on Natural Resource Management, a joint program between **NABARD**, KFW and GIZ [2014-15]

Design, Establishment and Support for implementation of E&S Policy Framework at IL&FS and customization to 11 subsidiary companies [2007-14]

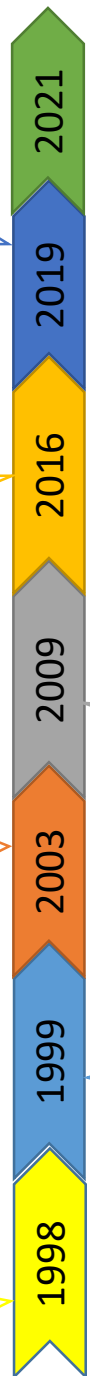
Few recent achievements

- EMC is on the stewardship board of the **Council for Inclusive Capitalism** on invitation. CIC is a CEO-led movement of businesses pursuing profit in ways that lead to a more inclusive and sustainable economy.
- Dr Prasad Modak is now part of the 8-member expert team to advise the **International Sustainable Products Exchange (ISPX)**. ISPX comprises three pioneering entities - National Stock Exchange, Ecube and Chainflux, a Blockchain products firm. This platform will catalyse the availability of climate finance and access to a variety of important financial instruments including Green Bonds, Sustainable Bonds, Voluntary and Regulated Carbon Credits, Green Equity, and Green and Sustainable REITs.
- EMC is working with NITI Ayog for promoting Circular Economy in India through multi-ministry approach.

Year-wise Ash Utilization



https://cea.nic.in/wp-content/uploads/tcd/2021/09/Report_Ash_Yearly_2020_21.pdf



1. CPCB published guidelines on disposal/utilization of fly ash for reclamation of low lying areas & stowing of abandoned mines/quarries
 2. CEA emphasizing the use of fly ash in construction of hydro power plant

Enlisted eco-friendly activities in draft Notification :

- Manufacturing of brick /blocks/tiles
- Cement manufacturing, ready mix concrete
- Construction of road and fly over embankment, Ash and Geo-polymer based construction material
- Construction of dam
- Filling up of low lying area
- Filling of mine voids
- Manufacturing of sintered/ cold bonded ash aggregate
- Agriculture in a controlled manner based on soil testing;
- Construction of shoreline protection structures in coastal districts
- Export of ash to other countries

3rd amendments

1. Imposing restriction on 20% fly ash free of cost to those TPP 100% fly ash utilized.
2. Cost of transportation within 100 Km is paid by TPP whereas beyond 100 Km up to 300 Kms cost will share by user & TPP.
3. TPP shall promote ash based product manufacturing units within own TPP premises to reduce the transportation.
4. State authority amend the building bye laws of the cities population one million or more to mandate the used of ash based bricks as per technical specification
5. Mandate use of ash based brick in all government related construction like SEZ, MNREGA built up area more than 1000 Sq.m
6. Ministry of Agriculture the promotion of ash utilization in agriculture for soil condition
7. Use of fly ash in back filling mine or stowing of mine within a distance of 50 Km

1st amendments
 Construction activity within radius of 50 Kms to 100 Kms from TPP

2nd amendments

1. 100% fly ash utilization by TPP within 5 years
2. Construction Agency of central , state, and local govt within 100 Kms from TPP mandate to used fly ash based construction products.
3. Percentage of fly ash utilization:-
 1. Bricks & tiles – 50% of total input material
 2. Cement- 15% of OPC content
 3. Clay base building materials- 25% of total raw materials

1st Fly ash Utilization Notification
 Mixing atleast 25% of ash with soil in Construction material within 50 Kms from TPPs

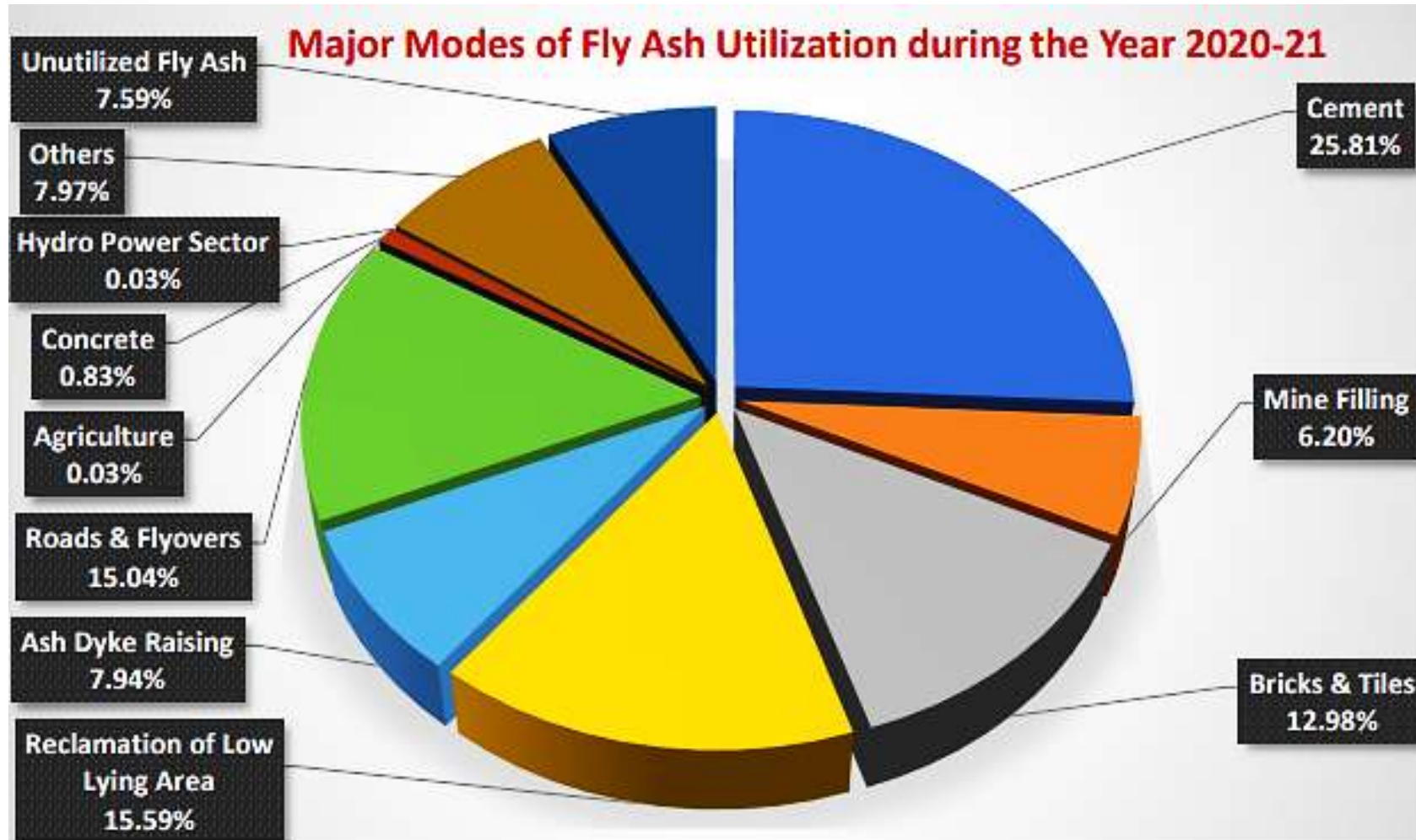
First Draft Notification on Fly Ash Utilization

New Approach- Circular Economy

- Product approach
- Why this ?
 - Eliminate the concept of waste
 - Replace natural resources
 - Understand the competition
- Will it create wealth?



Existing Wealth Avenues





What Next?

Let's us proceed to discussion.....



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