



## **PRESS NOTE IN THE BACKGROUND OF COP 21**

### **FaL-G to save Mother Earth by contributing to Sustainable Development**

COP 21 is in progress. By the attendance of Mr Barack Obama and Mr Narendra Modi, representing two opposite blocks to the negotiations, the conference has attained more significance. Both of them unveiled their speeches with concern on terrorism that has vandalized Paris in November. But have they addressed 'Global Terrorism' caused by climate change in their policy statements! It is not clear but obvious that both of them have not budged from their country's basic agenda/mandate on climate change issues which have been there since COP 1. As long as selfish dimensions dominate negotiations, any number of COPs prove futile and do not serve the purpose. When Heads of countries do attend COP with prefixed agenda, rather than drawing agenda based on negotiations and deliberations, do we really need to conduct COPs year after year!?

Mr Obama has highlighted every positive note except the issue of his country signing Kyoto Protocol which upholds the rolling back of emissions of Developed nations by 5% of 1990 levels. He has posed to be generous by offering to enhance emission reduction commitment of USA from 17% to 26-28% below 2005 levels by 2025.

Whereas Mr Modi has repeated his country's stand point saying, *"The principles of equity and common but differentiated responsibilities must remain the bedrock of our collective enterprise across all areas – mitigation, adaptation and means for implementation. Anything else would be morally wrong"*. Does it mean increasing emissions by 45% in 4 years (2010-2014) as well as allowing China to increase by 65%?

Due to political and economic imperatives prevail over the logistics of every country individually, to which the Head of the country is obligated in deed, it is very difficult to achieve consensus on all the issues, and COP 21 is nowhere an exception.

Notwithstanding the failure of addressing targets set by Kyoto Protocol, COP 21 has shown some progress:

- Solar energy has gained more prominence with the formation of 'International Solar Alliance' at global plateau with the participation of 121 countries.
- Setting up 'Climate Fund' of 100 billion dollars annually to assist developing economy with clean energies.

While the previous PM, Dr Manmohan Singh has committed 20% reduction by 2020, Modi has set an ambitious target of reducing emissions by 33-35% of 2005 levels by 2030. Having allowed to increase the emissions in India by 45% over 4 years (1,612,362 kt in 2010 is increased to 3,287,590 kt by 2014 ie., 728,623 kt over 4 years) what is the veracity of reduction by 33-35% of 2005 emission levels by 2022?!

Have they really worked out the potential of technologies and opportunities in India to make such declaration? The answer is no if their attention to FaL-G (fly ash) brick proliferation is any indication.

In the light of enthusiasm for solar energy, it has become fancy to project targets on solar power which needs enormous funds, vast stretches of land, administrative tone up and well drawn strategies. As ambassador of solar power mission we welcome the approach and support it. But why not support proven technological opportunities available indigenously such as FaL-G to bag additional emission reduction benefits?!? The table below highlights this argument:

| Country's target to add renewable energy by 2022 as declared by PM at COP 21 | gigawatts                     | In terms of MW                    | t CO <sub>2</sub> /MW                                    | Emission abatement t CO <sub>2</sub> |
|--|-------------------------------|-----------------------------------|--|--------------------------------------|
|  | 175                           | 175,000                           | 0.9  | 157,500                              |
| FaL-G brick plants achieve above emission abatement                          | Target of emission reductions | Average capacity: Millions/ plant | Emission reduction per million bricks: t CO <sub>2</sub> | Number of bricks plants required:    |
|  | 157,500                       | 3                                 | 240  | 220                                  |

INSWAREB has addressed letters to PM and MOEFCC offering to impart training to all clay brick manufacturers in India which means adding over 82,000 plants that can bring down emissions by 59,040,000 t CO<sub>2</sub> eq to 65,600 gigawatts; 375 times over what government envisages in renewable energy by 2022.

Notwithstanding walling market of 300 billion bricks, INSWAREB has demonstrated the scope of FaL-G bricks in infrastructure applications such as Khadanza pavements. In the background of 372,000 km of back log for rural roads (ref. World Bank report), even at 10% penetration, 37,200 km require 268 crore blocks eq. to 1002 crore bricks.



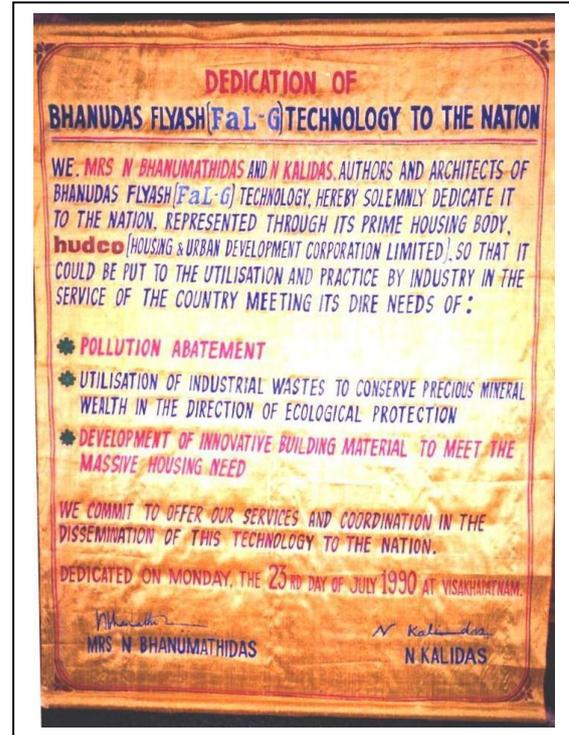
Governments of developing nations always crave for overseas funds to purchase technologies from developed nations which is, ofcourse, necessary. But it does not mean that indigenous technologies have to be ignored of their potential.

FaL-G is validated by INSWAREB as the unique technology having no parallel in the world for its massive contributions to the indicators of Sustainable Development viz:

- Mineral conservation
- Industrial waste (byproduct) utilization

- Fuel conservation
- Pollution abatement
- Emission reduction
- Empowerment
- Economic development

In view of its potential service to mother earth and mankind, the inventors of FaL-G technology, Dr Bhanumathidas and Kalidas have dedicated the technology to the Nation allowing its proliferation without any restrictions and licensing, despite having patent. The untiring efforts of Mr V Suresh, ex CMD of HUDCO, who predicted FaL-G as the product of future in 1989 itself, and disseminated the information at every forum, helped for its proliferation. Endorsement by Prof. PK Mehta, Professor emeritus, University of Berkeley, California, who is one of the top concrete technologists of the world, has also enriched its accreditation.



The erstwhile PM, PV Narasimharao has constituted a high power committee in 1995 under the Chairmanship of CMD, HUDCO, to evaluate the applicability of FaL-G at national level. Dr Manmohan Singh as Finance Minister has exempted fly ash bricks and also the machinery for its production from taxes and duties which have been reversed by short-sighted successor, Mr Chidambaram, resulting in retardation in proliferation of plants. Due to change in G.Os, power plants started making money on fly ash, discouraging the proliferation of fly ash brick industry, necessitating the intervention of judiciary leading to corrective mechanisms.

FaL-G technology has already demonstrated the scope of earning emission reduction credits by signing contract with the World Bank in 2006 for over 6 million dollars and successfully completed the delivery of contractual quantities by 2014, benefiting over 112 entrepreneurs of FaL-G brick plants with millions of rupees.





Mr Obama at COP 21 has rightly mentioned, *“If we put the right rules and incentives in place, we will unleash the creative power of our best scientists and engineers and entrepreneurs to deploy clean energy technologies and the new jobs and new opportunities that they create all around the world”*.

Whereas, instead of penalizing the eco-hostile clay brick industry and incentivizing eco-friendly fly ash brick industry, MOEFCC has attempted to lift the ban on clay bricks at its stakeholders meeting of 7.1.2015, presumably due to political pressure, but retracted due to the mounting pressure from INSWAREB and other likeminded agencies.

As against these lopsided policies in India, Govt. of Bangladesh is coordinating with a US based NGO, Institute for Industrial Productivity (IIP), for imparting training on FaL-G technology to all the clay brick manufacturers in order to conserve top soil on one hand and utilize the fly ash, on the other, that is going to be generated by the power plants in pipeline. INSWAREB is actively supporting this effort.

Through this national press, in this ‘Silver Jubilee Year of FaL-G dedication to the Nation’ we appeal to Prime Minister Mr Narendra Modi and Minister of MOEFCC, Mr Javadekar the following:

1. Your commitment to tap solar energy is laudable. But, please recognise the potential of fly ash for its multifold contribution to abate emissions both in bricks and cement, and offset such reduction against country’s commitment to reduce emissions.
2. Extend tax exemption to carbon credit revenue, since it is deemed export revenue where such earnings are already enjoying tax benefits.
3. Please encourage the proliferation of FaL-G brick plants throughout the country in Mission mode, giving due incentives and tax reliefs, aiming at macro level contribution of the segment to economy, environment, ecology and empowerment.
4. Please facilitate smooth transition of clay brick industry to fly ash brick production through conducive administrative and fiscal mechanisms, availing the training offered by INSWAREB to all clay brick manufacturers throughout the country.
5. Encourage large scale use of fly ash in cement and concrete, based on performance-oriented codes in the lines of Western code of practices, in order to reduce carbon foot-print of construction segment.
6. Since cost of handling of fly ash is already loaded in power tariff, ensure availability of fly ash to bricks, cement and concrete industries without any costs, unless and until total generation of fly ash is used continuously year after year.