

 Zinc...essential for life

Indian Sheet Steel Building Group – Key to Unlocking Galvanized Steel Growth

*International Conference on Galvanizing
New Delhi, July 10-11, 2014*



Kenneth M. de Souza - IZA



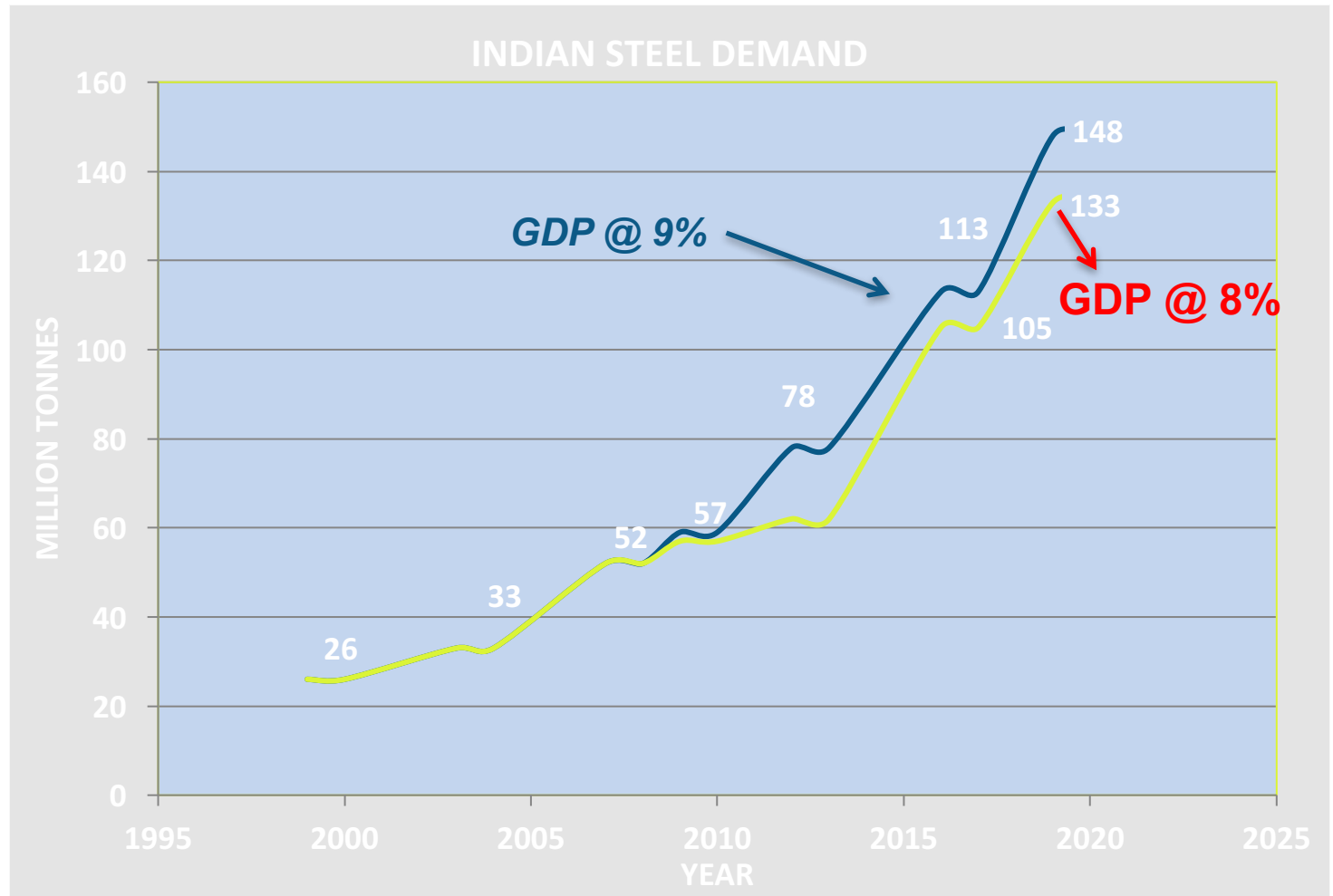
Zinc...essential for life

Outline

- *India's Future Steel Demand*
- *Leveraging Galvanized Opportunities*
- *Indian Sheet Steel Building Institute (ISSBG)*
- *Measuring Success*



India's Future Steel Demand



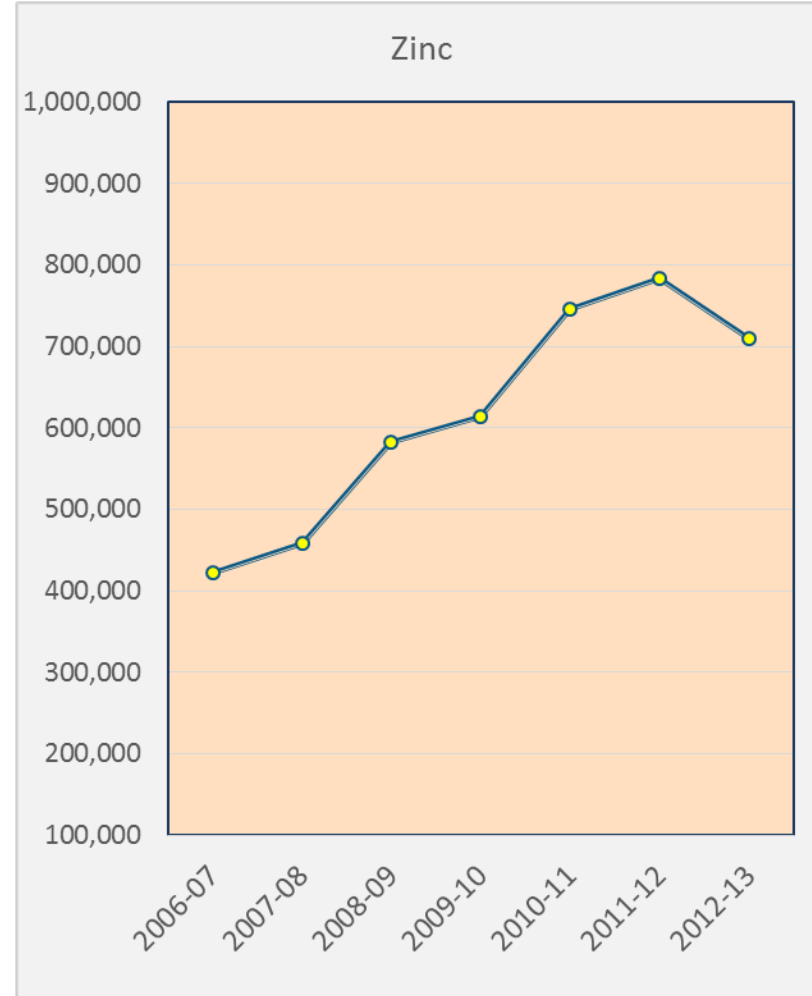
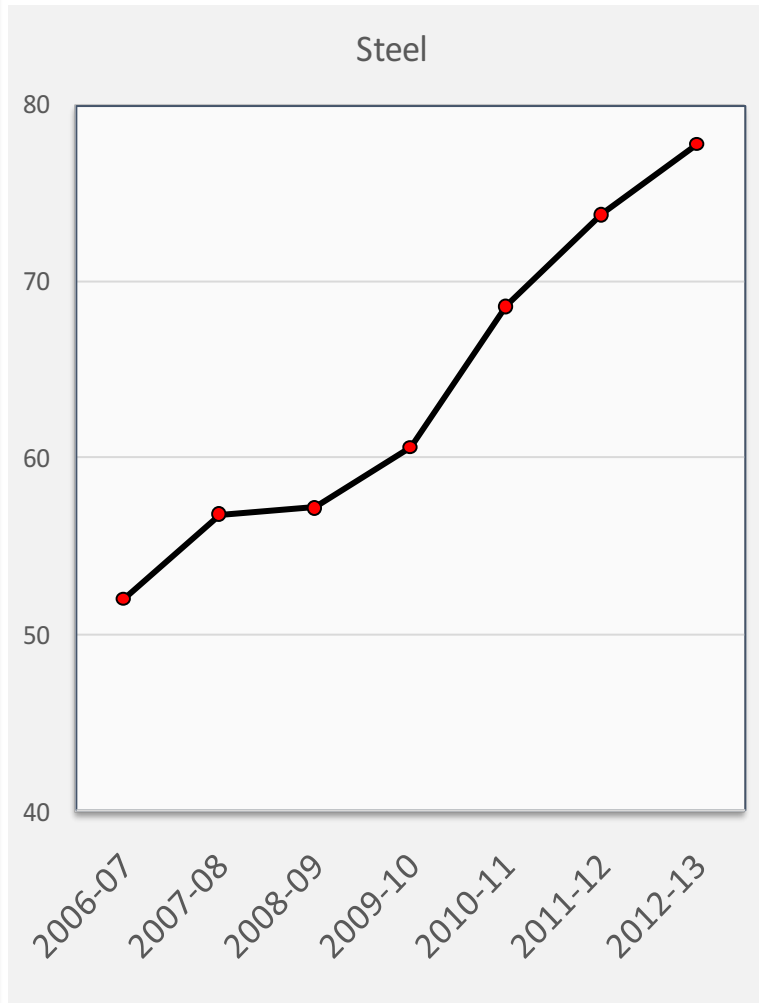
Data Source: OECD Paris Meeting, May 2011

Production capacity will lag demand – Imports will continue

Zinc...essential for life



India's Steel & Zinc Production



STEEL

(million tonnes)

ZINC

India: Fourth Largest Steel Producer after China, Japan & USA (WSA)



Expected Capacity Additions

Year-ending 31 March	Crude steel capacity (millions of tonnes)					
	2007	2008	2009	2010	2012	2015 F
Tata Steel (India)	5	5	6.8	6.8	6.8	12.7
Essar Steel (India)	4.6	4.6	4.6	4.6	9.2	9.2
Ispat	3.6	3.6	3.6	3.6	3.6	3.6
JSW Steel	3.8	3.8	3.8	7.8	11	11
RINL	3.5	3.5	3.5	3.5	3.5	6.3
JSPL	2.9	2.9	2.9	2.9	4.9	6.9
SAIL	13.8	13.8	13.8	13.8	15.9	24.7
Bhushan Steel	0.3	0.3	0.3	0.3	2.2	5.1
Bhushan Power & Steel	1.4	1.4	1.4	1.4	1.4	1.4
Others	17.9	20.9	25.6	28	28	31.6
Total crude Steel Capacity	56.8	59.8	66.3	72.8	86.6	112.5

Source : "India Steel Sector:India-An outperformer in Steel" , BNP Paribas Securities via Thomson research, 19 October 2010



Indian Flat Rolled, Long Products, & Coated Steel Consumption (M Tonnes)

Category	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Flat Rolled Steel	21.11	22.02	21.92	24.52	27.00	34.95	36.30
Long Products	24.73	26.30	27.00	30.48	33.46	33.98	36.63
Coated Steel Production	4.39	4.38	4.58	5.62	5.55	5.90	6.50
Coated Steel * Consumption	2.40	2.62	3.33	4.51	4.68	4.89	5.50
% Coated Steel**	9.4 %	9.9 %	12.6 %	15.0 %	14.4 %	14.9%	15.1%

Data source: JPC Indian Steel

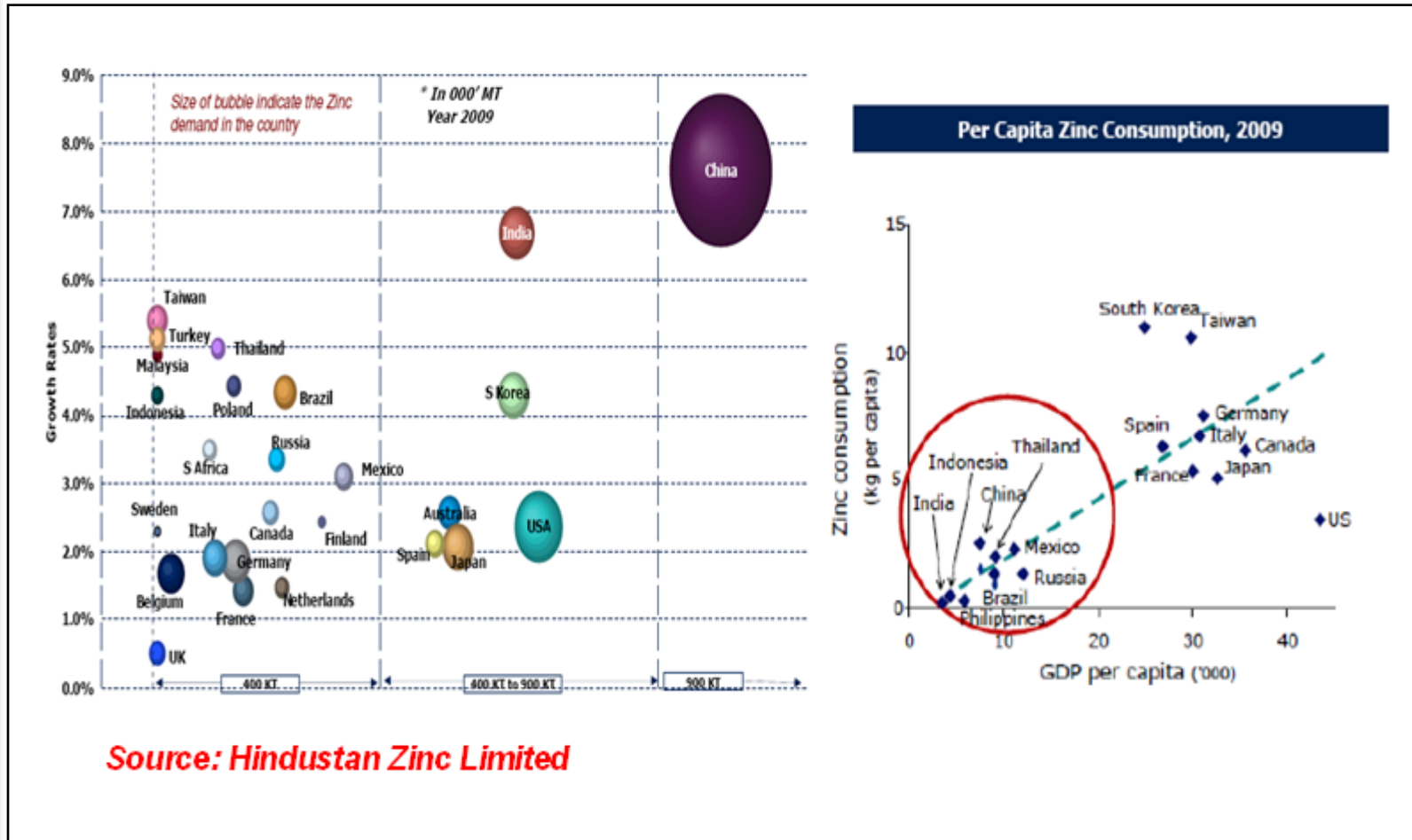
* Consumption = (Production + Imports) - Exports

**Coated Steel consumption as % of Flat Rolled Consumption

% Coated Steel usage in NA is 27%



Indian Zinc Market



Source: Hindustan Zinc Limited

India: High Growth, High Demand Market, but almost the Lowest Country in Per Capita Zinc Consumption



Zinc...essential for life

- *India's Future Steel Demand*
- *Leveraging Galvanized Opportunities*
- *Indian Sheet Steel Building Institute*
- *Measuring Success*



The Galvanized Opportunity

Very favourable climate for growth

- *Stable government & Priority on infrastructure spending*
- *Consistent GDP growth of > 8% (except since 2013)*
- *Strong domestic steel demand (10% annual growth) and increasing steel capacity*
- *Low per capita steel consumption (58 kg versus 225 kg world average)*
- *Lowest zinc consumption per capita in the world*
- *Construction, Manufacturing & Automotive are all growing*



Zinc...essential for life

Indian Sheet Steel Building Group (ISSBG)





Zinc...essential for life

ISSBG

- *Founded in June 2013*
- *Modelled after very successful Canadian Institute (CSSBI) operating since 1961*
- *Membership made up of steel mills, building product manufacturers, PEMB companies, fastener manufacturers*
- *Mission is to increase use of sheet steel in construction*
- *IZA India acts as the Secretariat*



Zinc...essential for life

ISSBG Focus

- *Building Codes & Standards development*
- *Research to develop engineering data for new products and applications*
- *Develop technical fact sheets and provide technical support to architects, engineers, code officials and building inspectors*
- *Technical market development, case studies, and trade show promotion*





Standards & Building Code Development

- **Bureau of Indian Standards (BIS)**
 - Committee membership requested
 - Rewrite of I -277 galvanized Standard
 - Developing new Standards for automotive and new metallic coatings



भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS

- **Building & Construction Code**
 - Commercial, Industrial, Institutional buildings
 - Residential buildings
 - Fire & Structural Design

भारत की राष्ट्रीय भवन
निर्माण संहिता
National Building
Code of India

Corrosion Testing Program

- *Need for fresh performance data on hot dip zinc and zinc-alloy coated steel in India*
- *Samples prepared and exposed at 5 exposure locations across India*
- *Statistical results ($W = kT^N$) within 4 years*
- *All steel mills support this exposure testing program*



Five Product Areas

- *Steel Building Products (roofing, cladding)*
- *Lightweight Steel Cladding (agricultural)*
- *Pre Eng Metal Buildings (PEMB) < 3 storey buildings*
- *Lightweight Steel Framing*



Zinc...essential for life

Steel Building Products

Roofing, Cladding & Decking

Zinc...essential for life



Zinc...essential for life



Steel Building Products

Roofing, Cladding & Decking



Zinc...essential for life



Lightweight Steel Cladding

Agricultural



Pre Eng Metal Buildings

Commercial, Institutional & Architectural

Zinc...essential for life



Lightweight Steel Framing

Commercial Wall Framing



Roof Framing





Zinc...essential for life

ISSBG Publications

Technical Fact Sheets on:

- ***Solar Reflectance***
- ***Fire & Acoustic Performance***
- ***Enhanced Paint Systems***
- ***White Rust & Fretting Corrosion***
- ***and many more***

Need a screen shot of ISSBG Website Fact Sheet



Zinc...essential for life

Sustainability Information

Technical Fact Sheets on:

- ***Recycled Content***
- ***Embodied Energy***
- ***Steel & GHG Emissions***
- ***Cool Roofing and Cladding***

Need a screen shot of ISSBG Website Fact Sheet

ISSBG Website

www.zinc.org.in/issbg



Zinc...essential for life



Zinc...essential for life

Anticipated Business Results

- ***Increased shipments of zinc coated steel for building construction and automotive parts***
- ***Upto 7 Million Tonnes per annum of new coated steel shipments to Automotive, Construction and Infrastructure***



Zinc...essential for life

In Conclusion ...



- ***ISSBG is a national organization focussed on increasing sheet steel use in India***
- ***1 year old, this month, and making good progress in growing the Construction and Automotive market segments***
- ***Membership covers all steel companies, PEMB construction, fastener companies and other interested industry suppliers***
- ***Check out the website www.zinc.org.in/issbg***



Zinc...essential for life



ZINC
ZINC

Thank

Namasté

