

Green construction sector

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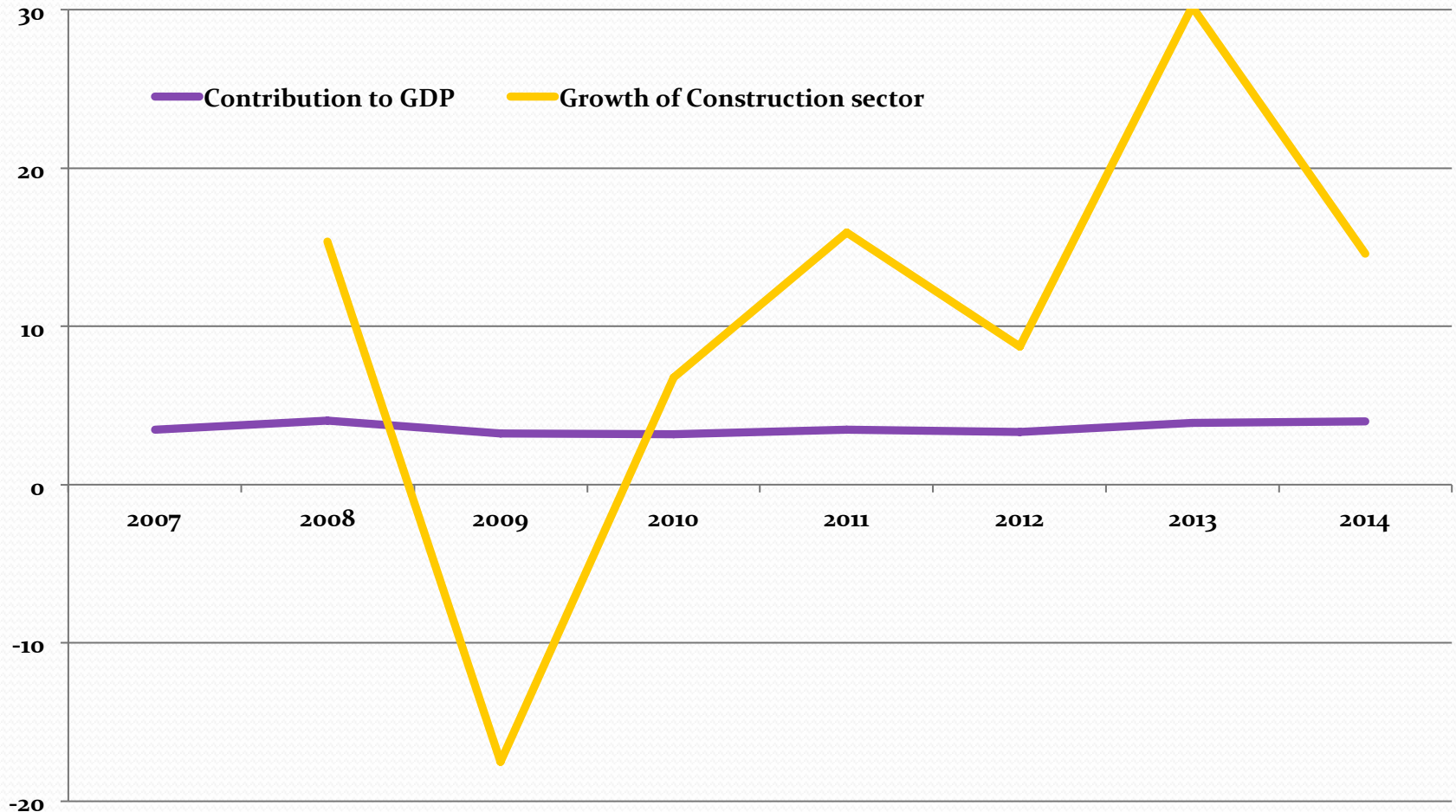
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Finnish Embassy & ILO Workshop on Greening
the Construction Sector



Institute for Public Policy Research

Construction sector's role in the economy



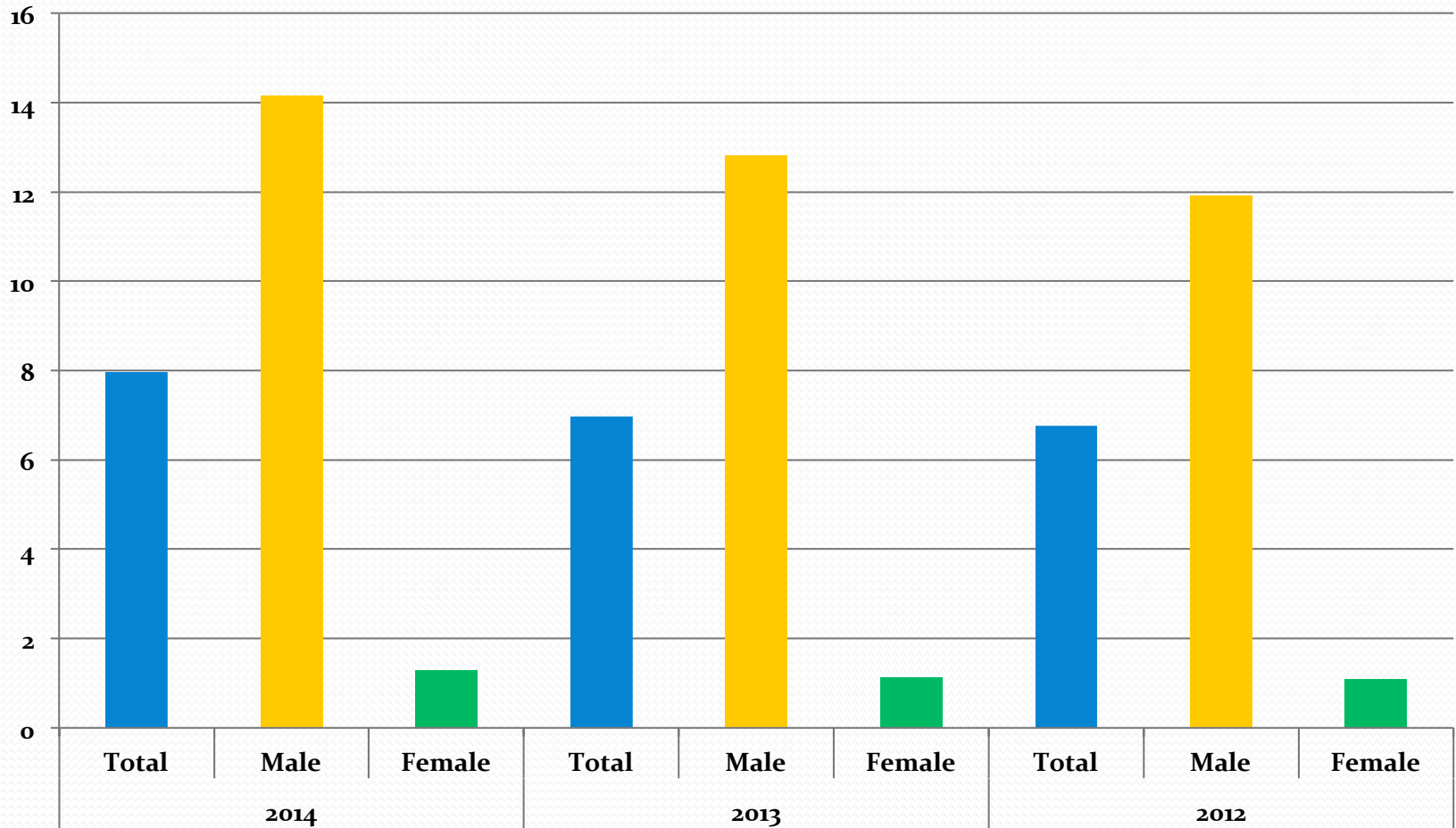
Contribution to GDP

One of the main drivers of the economy in recent years:

- Private sector investment in the development of new mines, shopping malls, residential buildings etc.
- Public sector investment in infrastructure such as transport infrastructure (port expansion, road & railway), sanitation & housing, water (Neckartaldam) etc.
- Average growth of 15 per cent over past five years
- Contribution to GDP increased to 4 per cent
- Strongest contributor to Gross Fixed Capital Formation (28 per cent)
- Multiplier increased to 2.5 (estimated 2013) from 1.9 (2004). Strongest linkages to manufacturing, mining and transport.



Employment



Employment – 2

- Accounts for eight per cent of all employees (1.3 per cent of all women and 14.2 per cent of all men)
- Strong sectoral growth resulted in increase of employment by 33 per cent between 2012 and 2014
- Almost 57,000 employees
- Women's share increases slightly, but by far a minority (7.8 per cent)
- Entry point for low skilled (unskilled and semi-skilled) workers



Green construction – energy & water

- Cabinet directive in 2007 to install Solar Water Heaters in new Government buildings
- Consider to extend to SoEs and in particular the Mass Housing Scheme implemented by the National Housing Enterprise
- Use of fluorescent or LED bulbs and gas stoves in houses
- Use of water saving technology
- Higher upfront costs but reduced operational costs and carbon foot print
- Support of NamPower's Demand Side Management initiative
- Consider applying environmental levy to electric geysers and electric stoves



Alternative, locally available material

- Habitat Research & Development Centre established in 2008 in its current form by Government
- Alternative building materials include clay, mud, natural stones, reed / thatch, recycled materials (bricks, tyres) etc.
- Cement-saving bricks such as Hydra form and Kavango bricks or clay bricks (Uis bricks)
- Recycling of construction material – with exception of bricks etc. material transported to South Africa for recycling (steel etc.)
- Lower construction costs – among others owing to lower transport costs
- HRDC apparently not fully utilised by Government – not involved in the planning of the Mass Housing Scheme



Green Building Council

- Established in 2012 on voluntary basis
- Green Star Rating – one building under construction rated four star, rating of a number of existing buildings under way (South Africa 100 buildings rated)
- Ten criteria ranging from energy and water efficiency (reduce, reuse, recycle) to materials incl. recycled material used, transport and land use
- Building awareness among professionals such as architects, engineers, quantity surveyors, constructors and others
- Need for training



Lead by example – Mass Housing Scheme

- 185,000 affordable houses by 2030 – estimated cost of NAD45bn
- Use of alternative & locally available building material
- Use of energy and water saving technologies
- Adapt housing design
- Consider multi-storey buildings instead of single-stand houses
- Cut transport distances and costs through provision of basic facilities including shopping centres in new residential areas
- Provide access to advanced public transport
- Reduce construction and operational costs (makes housing more affordable to low-income earners)
- Set new standards
- Develop capacity of professionals and constructors



Additional recommendations

- Develop Green Building Policy
- Develop building standards
- Increase local capacity to test building material at laboratories (equipment, skills)
- Support international accreditation of laboratories



Green construction sector

Thank you for your attention

