





While

Earth's mineral resources are finite....

and often energy-intensive, but alternative resources can be produced indefinitely, with strong environmental benefits



Indigenous Wood



Precious Stone



Coal



Fine Metal

Mining



and....The Global Impact on the rise

Buildings are responsible for
40%
of world's global greenhouse gas emissions.

Buildings are responsible for
40%
of solid waste generation globally.

Buildings use
12%
of the world's water.

Air quality in buildings typically contains up to
5x
more pollutants than outdoor air.
(and at times greater than 100)

Buildings utilize
1/3 of
the world's resources.

Source : Green Building Index – Malaysia GBC 2010



Start from.....The Architects and Designers



Have to provide design that consuming less energy, less water, creating healthy indoor air qualities, use environmental product, and produce less waste



Continue to.....the Industry deals

Globally, construction in 2011 - 2012 is projected to be a \$7.2 trillion industry, representing 11% of global GDP.

In 2020 this is expected to rise to \$12 trillion (13.2% global GDP), mostly in emerging countries.

This year, green jobs make up more than 1/3 of jobs in the developing countries
(USGBC Report 2011)





With analyzeThe Future' Jobs

New local jobs in the future, jobs that **cannot be outsourced** - in other words, based in initiatives.

All the jobs benefit the economy and improve our environment.
- **as a growing national movement.**

An important recognition; are a real opportunity for cities and states struggling to **find new paths to job growth.**

GREEN CONSTRUCTION CAREERS

A Growth Opportunity for the Building Trades



A POLICY REPORT FROM
2010 Community Scholars Program
Department of Urban Planning
UCLA School of Public Affairs



GREEN CONSTRUCTION PROJECT MANAGEMENT AND COST OVERSIGHT



SAM KUBBA



Then....We need creating of the.... Green Construction

- Reducing the limited natural resources
- Reducing emission from energy overuse
- Reducing waste from construction



* Source: U.S. & France: M. (2008). Energy performance of LEED for New Construction buildings - Final report.
** GBCI. (2008). The Costs and Financial Benefits of Green Building. A Report to California's Sustainable Building Task Force.
*** GBCI Building America (2010). Assessing green building performance: A joint industry publication of USGBC buildings.

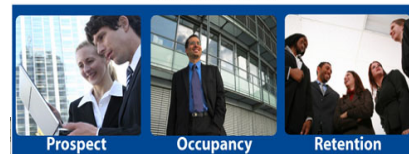


The Economic Benefit ;

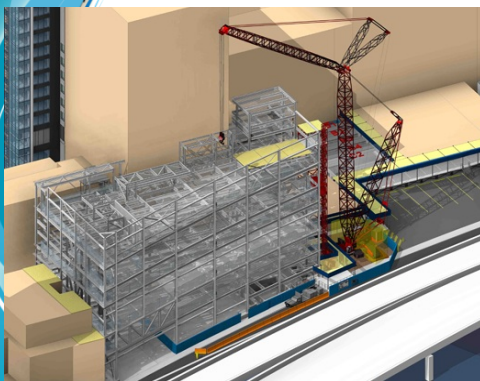
- **Cost Saving in All Sectors** while employment is uncertainty, some of steadily declining
- **Creating job for residents**, since a substantial number of building will need repair and being retrofit
- After “Greening”, Investor will **highly interested and stimulate** the local economic development



THE TENANT LIFE CYCLE

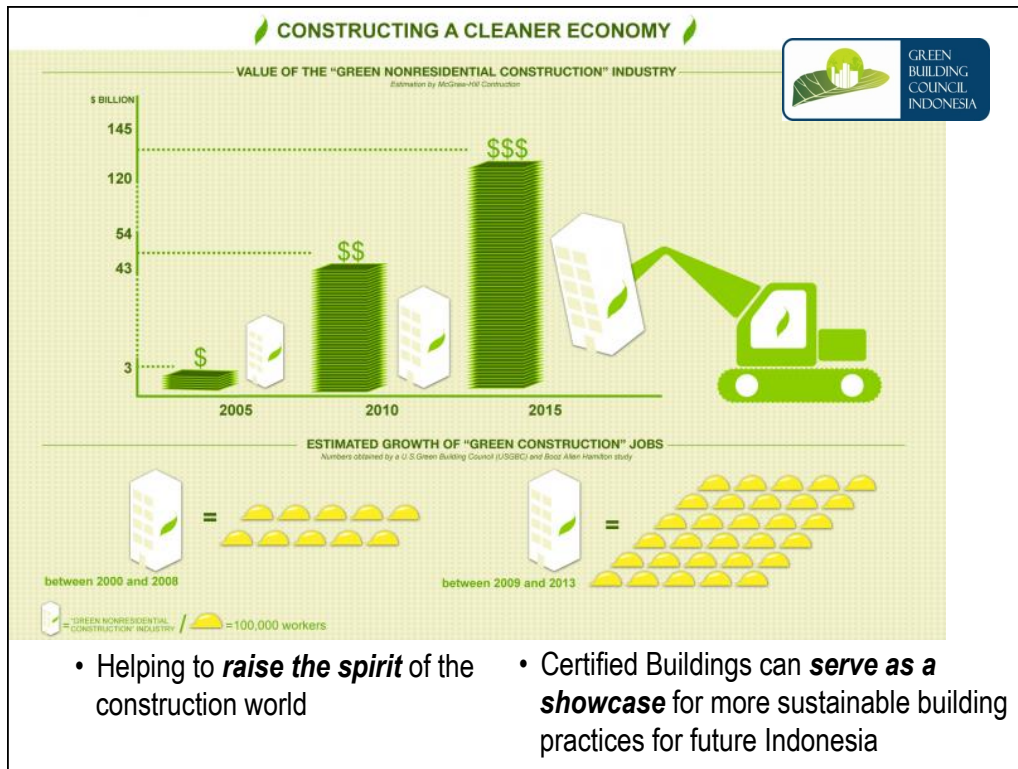


In line with global trends, a green building movement is **taking hold** in Indonesia



- Certification guidelines **published and disseminated** in all sector begun
- GBC Indonesia **taking noted** by all Developers and Contractors
- Companies are increasingly **looking** and **envy implementing** at the concept





Upgrading and Updating is exponential needed in Professional Expertise

*Greenship Associate
Greenship Professional*

Through training of Green Building by GBC Indonesia, will **enable professionals to be aware**; and **respond how to design, built and construct green**.



How they can help to contribute ?

Greenship Associate

People who change the mindset of the working environment and create **Green Team and Initiative** at their work place, act green and purchase green product



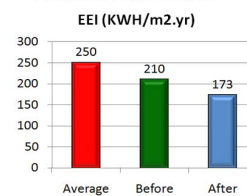
How they can help to contribute ?

Greenship Professionals

Green Transformers who designing , monitoring commissioning, and constructing building with an integrated green concept into to the best practice



Menara BCA PT Grand Indonesia .
Platinum . 2011-2014



With the right training, green real estate agents and green contractors can generate referrals for each other and increase business for everyone!





Upgrading and Updating is exponential needed also in Vocational Expertise

- ✓ Education for Craftsmanship
- ✓ Enhance qualification of workers
- ✓ MOU with Center of Research and Vocational Workshop
- ✓ Teaching Green Basis Activities in Construction Daily Life



Framers

Craftsman



Carpenters

Builders

Drafter



Working based on.... Mandatory

DKI Jakarta government with Government Regulation Number. 38 / 2012..... is mandatory in getting Building Permit and Certification of Building Usage with minimal required of Green Building





Fully Supported from..... Government

- ✓ Provide Green Building Leadership
- ✓ The Driver of Demand ; Regulatory and Public Driver Awareness
- ✓ Provide Stick and Carrot to be balanced
- ✓ Most of Industries could comply with
- ✓ Not doing any certification
- ✓ Part of permit procedure
- ✓ Must have a single national blueprint
- ✓ Set an Example Instrument which consolidated with Local NGO' s

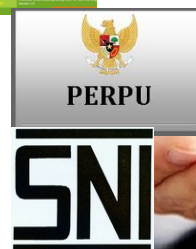


WORLD GREEN BUILDING COUNCIL

The regulation revised as required

Adaptable with :

- Green Building “trends and demands”
- Substantially advices from NGO and Communities
- Availability of Technology and Existing Best Practices
- Forecasting of Obstacles



GREEN BUILDING COUNCIL INDONESIA

But the process is.... Voluntary

Green Building Certification Process through GBC Indonesia is voluntary basis

GREEN BUILDING COUNCIL INDONESIA

Sitting together with..... Industries

- ✓ Proposed Actions
- ✓ Networking to Elevating
- ✓ Incorporating Negotiated or Voluntary Agreement on Specific Topics such as Energy Efficiency Use
- ✓ Supply Chain Initiatives



as a basic criterion....GREENSHIP

by taking into account the suitability and standard conditions prevailing in Indonesia, which are all based on the principle of sustainable green

- ✓ Appropriate Site Development (ASD)
- ✓ Energy Efficiency Conservation (EEC)
- ✓ Water Conservation (WAC)
- ✓ Material Resources and Cycle (MRC)
- ✓ Indoor Air Health and Comfort (IHC)
- ✓ Building Environment Management (BEM)



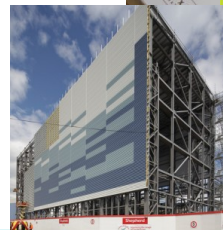
We've **registered** and **accepted** by the **Ministry of Environment** on July 21, 2011 through the provision of registration marks the competence of environmentally-friendly building's certification service providers in Indonesia



Green Construction Procurement

This lead to greener in construction and lead by LKPP as a catalyst for changing

- ✓ Reliably in realizing a credible procurement system
- ✓ Achieving a clear procurement rules, monitoring and evaluation systems
- ✓ Professional human resources,
- ✓ Legal certainty of goods /
- ✓ Services of the government based





Sustainable Construction

In line with Ministry of Public Works program that all built environment therefore should be construct in as a Green Building with the context for most human activities and has huge impact on the quality of tomorrow life



The diagram 'architecture for educating' is a circular flowchart with the following stages:

- dream**: learning to have dreams and vision towards a better life
- open brief**: flexible programming for various positive activities
- belief**: learning to have confidence in their ability to realize their dreams
- local resources**: enhance the local potentials
- gotong royong culture**: embrace the value 'gotong royong' (shared responsibility)
- building skills**: develop community skills and knowledge on building construction
- action**: intervention is not given, communities must work on it
- dialog**: having goals and vision towards better future

Other elements in the diagram include: 'flexibility: community aspiration, open access for all', 'self-confidence, mutual trust', 'material exploration, utilizing new materials, local aesthetics', 'maintain what they already have', 'proper construction, sustainability, knowledge', 'willingness, share, contextual', and 'building strengths, building commitment, understanding self'.



Industries Support

This will push and change the way they produce product in considering environment, energy, water and waste

Creating new paradigms in producing building material



The collage includes the following elements:

- Green Building Council Indonesia logo
- Recycling symbol
- FSC 100% logo: From well-managed forests. Cert no. TT-COC-1110. www.fsc.org. © 1996 Forest Stewardship Council
- Recycling symbol with a globe
- Pile of waste
- Bamboo stalks
- Cotton bolls
- Person working on a wooden structure



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BUILDING
COUNCIL
INDONESIA

Green Product Listing

In line with **Ministry of Industrial and another NGO's** in GREEN LISTING

- Materials get lighter to reduce emission in transportation.
- Use environmental friendly raw materials.
- Reduce, Reuse, Recycle is required
- Less water in producing and maintenance, and less toxic .
- Local Supporting is needed in recovery




MATERIAL AND ASSEMBLIES
climate validation



EPA DOE

Supported by

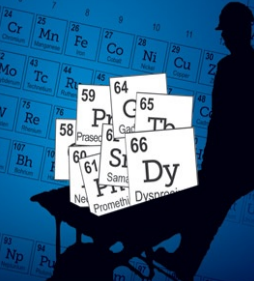



Nanocrystals

Glass



WATER
USE IT
WISELY





GREEN
BUILDING
COUNCIL
INDONESIA

Supply Chain in Sustainable Consumption and Production

In line with **Ministry of Environment** programs in National SCP

Their Packaging - source, form, degrade

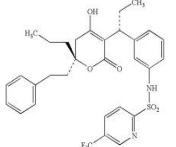
Their Cleaning- surfactants, solvents, fragrances

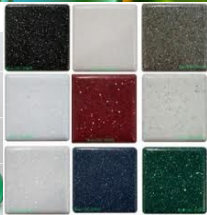
Their Material - type, surface

Their Distribution - transport, transit

Their Consumption - catalysing changes in behaviour





Waste Management

Waste Segregation

And reuse construction waste for other building materials.

Waste for us, but food and job opportunity for others



Socializing Green Product as a new job opportunity

Exhibition
Conference
Networking
Green Products Books and Flyer
Social Network Media
Fair trade – National or International
Websites and Blogs
Study Tour – Industry Visiting
Award and Green Competition





Goes to Campus Initiatives



*to create Green Ambassador
to create Green Behaviour*

- ✓ Initiative creating broad scale public green education and applicable material for the student campus needs
- ✓ Advisable education to be offered to the Faculty to provide mentorship across universities on green living issues
- ✓ Gaining appropriate mindset and valuable experiences in future student's careers.



Collaborate with Ministry of Tourism and Creative Economy

- Have green hotel guide line in creating greener hotel
- Use local wisdom by using local materials create new green job around the tourism and hospitality industries .



✓Challenge

"Investments to create new jobs in clean energies risk backfiring by curbing employment in other parts of the economy, a study commissioned by Danish "Skeptical Environmentalist" Bjorn Lomborg

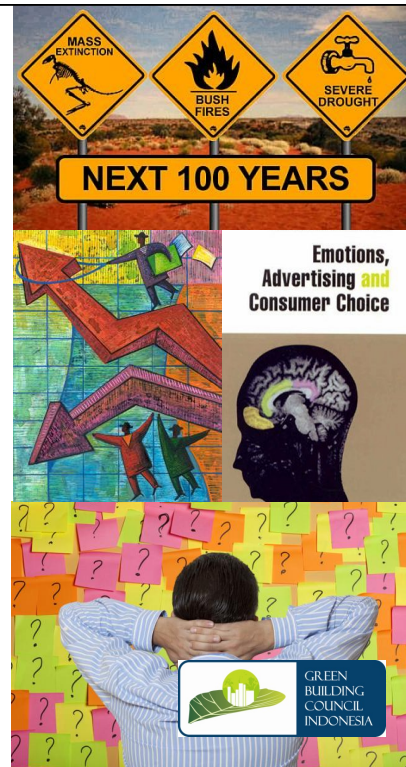
Different defining of Green Jobs

No consideration such as Lack of Transmission, and Technical Limitation

Lacking sufficient economy of scale to achieve

Uncertainties associated with policies

Intricacies of consumer behaviour



✓Benefit

Rising to meet the challenges of a future bright with possibility

Contributing their everyday labors toward environmental solutions

Not new jobs - they also can mean greater job security for people who already work in certain fields.

Green will replace Conventional

Lower cost of all sectors in the future, no agreement in what time frame and by how much





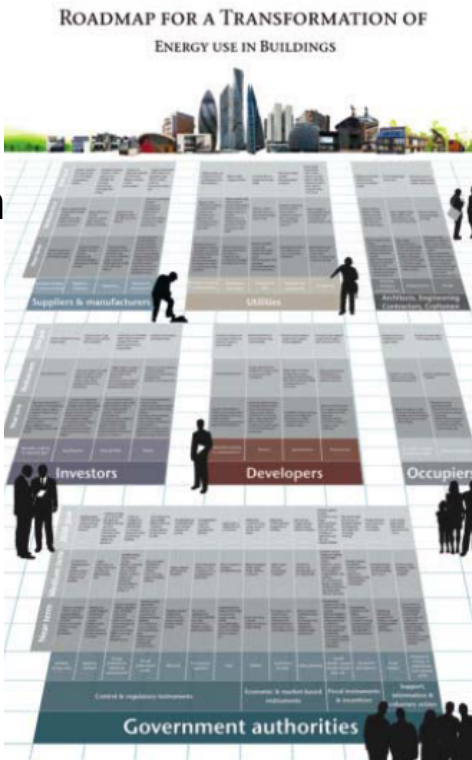
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Roadmap of Transformation

Our transformation start with

- 1.The incentives mechanisms and intergovernmental relationship*
- 2.A holistic design approach, from city level to individual buildings - encourage interdependence and shared responsibility*
- 3.Behavioral changes, motivate user, mobilization campaigns, training and education series, creating job opportunity*

ROADMAP FOR A TRANSFORMATION OF
ENERGY USE IN BUILDINGS





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INDONESIA



WORLD GREEN BUILDING COUNCIL



Continue in commitment now!Go Green, Be One, and Make One..



Thank You

THANK YOU

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