Sustainability in housing and settlement: Diverse economic challenges for good architecture

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Sustainability in housing: economic challenges for good architecture

This paper is concerning approaches for meeting the economic challenges of sustainable construction for housing and settlement in developing countries.

Categorized in two:
1. governance through standards, legal and regulatory practices,
2. market-oriented policies which influence the costs of particular forms of housing construction and settlement improvement.

Both approaches have a role
It is argued that the market-oriented measures will be more effective at the strategic level for housing and settlement improvement in less developed countries.
How can housing and settlement studies engage in the sustainability debate?

- Every built environmental context is different; the sustainability issues in housing and settlement are also different. However, there are many common issues to be solved.
- For common issues scholars can have common solutions, such as the application of new technologies and policies. The other type of issue is very much locally specific or area-specific.

- A scholar cannot simply apply a Singapore sustainability mechanism to Jakarta. However, a method of analysis or approach may be common to both.
How can housing and settlement studies engage in the sustainability debate?

- Economic approach for developing particular method in effort to achieve sustainability in housing and settlement in developing countries is considered as ‘common issue’.
- Housing debates, in Indonesia, at least, have remained passive on issues of environmental sustainability.

- There is an abundant literature about how environmental issues incorporated to studies of housing and settlements. There is far less literature that explains how these insights should be put into practicable theoretical and methodological construct that architecture can learn to respond the sustainability in housing and settlement in local space.
Sustainability in housing: economic challenges for good architecture

- Good architecture for housing and settlement faces economic challenges at different levels:
  - Macro – global analysis
  - Meso – national analysis
  - Micro – area/local analysis

Economic
In economic way of thinking, non-sustainability in housing production is because the environment is treated as a non-valuable or zero-priced resource.

- ‘Free’ environmental services hide the true cost of goods and services from the consumer; meanwhile production costs are kept down for the producer.

In short, the market does not reflect the full cost of the production of goods.
The solution offers by many environmentalists is a simple one is to make the market-place ‘value the environment’ on the principle that resources and environments serve economic functions and have a positive value.

- By attaching financial values to natural goods and services, it is possible to measure the willingness of individuals to pay for a given environmental quality. This is because of the basis of neo-classical economics is the consumer.

- If consumers change their tastes in favor of less polluting products and against more polluting forces, market forces will lead to a change in the ‘pollution content’ of the final product and services.
macro-economic level

- The goals of sustainable construction for housing are being implemented most actively in developed countries in which the share of construction output is decreasing.

- In both less developed and newly industrialized countries, the share of housing construction output is increasing, but the goals of sustainable construction for housing are more difficult to implement, i.e: China, Indonesia, India
At least in relative terms, the construction sector is a declining one in advanced industrialized countries. The share of housing construction in output is increasing in less developed countries and newly industrialized countries, but the goals of sustainable housing and settlement construction are considerably more difficult to implement there.

The market-based measures promoting sustainable development in advanced and less developed countries will need to be differentiated to account for different roles of the construction sector in these two economic environments.
messo-economic level

- The housing construction sector depends on the implementation of the goals of sustainable development across the national economy as a whole.

- Supply chains providing for the housing construction sector and settlement improvement are long and intertwined, making it difficult to assess the effect of different materials, components and procedures.
The housing construction sector, which accumulates the products of all other sectors, depends crucially on the implementation of the goals of sustainable development across the national economy as a whole. Economy-wide market-based measures promoting sustainable development are required.
Without a full understanding of housing components interactions it is difficult, if not impossible, to assess the overall environmental effect of different materials, components, and procedures used by the housing construction sector.

- Thus any imposed regulatory constraints and standards will be incapable of monitoring and therefore of effective enforcement. As international trade in this field increases, this challenge becomes greater.
Housing and settlement improvements in less developed countries are created with shorter time horizons in response to being demand-driven commodity and increasingly dominated by the material selection and electronic equipment, because their owners are facing an ever more uncertain economic environment.

Their finance is being adjusted to the short and medium term which is in conflict with sustainable construction, whose goals rely upon the long term of sustainable development.
micro-economic level

- As derived-demand goods, which depend on the demand for other goods and services produced in them, constructed housing are generally becoming lighter.
- They are increasingly dominated by mechanical, electrical, and electronic equipment, and they are ever better adjusted to specific short and medium-term economic objectives of their owners.

This is a challenge for good architecture and sustainable construction, whose goals often rely on long-term outlooks.
The most effective way to stimulate sustainable development within housing and settlement is by means of market based economic measures that affect individual economic agents in the short as well as the long term.
Conclusion

- Policies are required which influence the economic market forces which determine the actions of developers and their architects or designers and constructors. These policies need to operate at the three levels of economic activity, macro, meso, and micro levels.

- Prohibiting pollution and waste is not enough. Prohibition will only contribute to the development of grey and black markets. It will also contribute to the export of pollutants and hazardous waste. Similarly, setting standards is not enough. These standards will be met, often in dishonest ways, without a significant effect on the environment.
Conclusion

Future research needs to simultaneously focus on the ends and means of sustainability in housing and settlement in the context of sustainable development.

- It is the housing market and building clients who need to pay the full cost of the environmental effects of the housing and buildings.
Conclusion

The study of sustainability in housing and settlement need to deepen an understanding of the complex interactions of so many processes that underline the construction and maintenance of the settlement and built environment.

- On the other hand, further studies need to sharpen an understanding of market-based measures that are effective in producing the desired behavior among planners, architects, producers of building materials and components, builders, facilities managers, and their clients.
China
India
India
Singapore
Hong Kong
Malaysia
### Britain’s burgeoning house prices

![UK Map](image)

<table>
<thead>
<tr>
<th>REGION</th>
<th>AVERAGE PRICE (£)</th>
<th>QUARTERLY CHANGE (%)</th>
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<tr>
<td>SCOTLAND</td>
<td>62,504</td>
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<tr>
<td>NORTH</td>
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<td>YORKSHIRE &amp; HUMBERSIDE NORTH</td>
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<td>NORTHERN IRELAND</td>
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<td>-1.3</td>
</tr>
</tbody>
</table>

*SOURCE: Halifax*
Same old

Same old
Thank you

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