Questioning the Rio+20 Eco-Social Justice in Hyper-Modernization: Contradictions of the Millennium Development in a Globalizing World[1]

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The 2012 United Nations Conference on Sustainable Development (Rio+20) - having the largest numbers of representatives from governmental, business and non-governmental organizations - much like its predecessor of the Earth Summit in 1992, confirms once again the key consensus for human world's future: acknowledging "the need to further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their interlinkages, so as to achieve sustainable development in all its dimensions" (UNCSD 2012) – a new paradigmatic shift of (new) environmental –cum- social justice for global-locality?

The Rio+20 delivered a big package of (commitments for what?) initiatives by world leaders on path for a sustainable future: more than US$500 billion mobilized with over 700 commitments made. The official outcome document for Rio+20, entitled: *The Future We Want*, calls for a wide range of actions: launching a process to establish sustainable development goals, detailing how to use the green economy to achieve sustainable development, adopting a framework for tackling sustainable consumption and production, stressing the need to engage civil society and incorporate science into policy, and recognizing the importance of gender equality and voluntary commitments on sustainable development.

But how far these initiatives transform environmental justices is still questionable. This brief critically examines the new environmental justice for global-local (glocal) governance on sustainable development in hyper-modernizing world by delineating the political economy, contradictions and dynamics in two major contesting developmental arenas: alternative resourcing of renewable energy, water-cum-food supplies for glocal diversified sustainability.

Key Words： Environmental Justice, Globalization, Urbanization, Sustainable Development

1. Prelude to the Sustainability of Hyper-Modernizing Urbanization?

Like its predecessor of the Earth Summit in 1992, the 2012 United Nations Conference on Sustainable Development (Rio+20) aimed high for a successfully delivery of a framework and a set of policies to advance sustainable development that will be followed up at different countries and regions in the years to come. Historically, the Rio+20 has the largest numbers of participant-representatives from governmental, business and non-governmental organizations for United Nations' global initiatives for global development.

Like other UN conferences, the Rio+20 delivered a big package of (commitments for what?) initiatives by world leaders on path for a sustainable future: more than US$500 billion mobilized with over 700 commitments made. The official outcome document for Rio+20, entitled: *The Future We Want*, calls for a wide range of actions, including (UNCSD 2012):
- launching a process to establish sustainable development goals;
- detailing how to use the green economy to achieve sustainable development;
- empowered UN Environment Programme for a new forum for sustainable development;
- promoting corporate sustainability reporting measures;
- taking steps to go beyond GDP to assess the well - being of a country;
- developing a strategy for sustainable development financing;
- adopting a framework for tackling sustainable consumption and production;
- focusing on improving gender equality;
- stressing the need to engage civil society and incorporate science into policy; and
- recognizing the importance of voluntary commitments on sustainable development.

But the results of the Conference and the related initiatives are fallen short from the expectation and hope of those co-participating non-governmental agencies, given its very "soft", non-target or action-specific, and non-binding (if not weak) document – even less than a memorandum of understandings or a declaration like the Kyoto Protocol (1997-)....At this historical conjuncture: it is not clear that how far existing policies and practices, for (or against) the sustainability of the Earth, could be further pursued in long-term without any confirmed commitment from the participating nation states.....The question

now is how to make the essential policy (and praxis) tools for transformation to the green and sustainable development; not least in terms of how we can go further and accelerate the pace of the progress towards truly sustainable patterns of consumption, exchange and production (UNEP 2012).

Obviously and among all factors, one major arena for sustainable development is the public policy guidance and nurturing for sustainable re-sourcing for food, energy and water, among all essential commodity goods (Bizikova, et al. 2013). And how to develop pro-active policies for sustainability of the Earth, coupling with human survival (and security) with biodiversity, is our historical challenge!

In the following sections, this paper will delineate the contradictions and dynamics in major contesting developmental arenas, alternative renewable energy re-sourcing and water-and-food security for global-local (glocal) diversity -cum- sustainability, with the hyper-modernizing urbanity in a globalizing world; ending with a short remark on the prospects of glocal sustainability in the 21st century.

2. Hyper-Modernizing Mega-*City's* (Dualistic) Urbanism – Sustainable 21st Century?

In spite of two-century long developmental problems happen in cities since the Industrialization, more and more people move into cities; and cities have been attractive for all classes and races, people at large – thought it is questionably how effective cities enable them for better quality of life. Globally, urban life has been instrumental in shaping life course of people; and urbanization has been, and still is, the major developmental challenge for any nation state. For instance, in the hyper-modernizing China, in 2011, over half of it population reside in urban areas: after two decades of economic liberalization-driven rural-to-urban migration, amounting to over 200 million of people moved to cities. But the challenge of urbanization is just unfolding in Chinese cities that an addition of 300 million people will flow into urban areas in the coming decades (*Financial Times*, 13 June 2011; Lai 2014). And the dramatic hyper-modernizing urbanization is occurring in most developing economies as well. Urban life is likely the future for most people in our (lonely?) planet in 21st century.

2.1 The "Free" City is Dead - Long Live Mega-World *City*!

Though contested and debatable, the seminal work of Edward Glaeser (2011) *Triumph of the City* demonstrates how cities make people richer, smarter, greener, healthier, and happier throughout history. His urban economic writings take us a round-the-world tour from ancient Athens to modern world cities of London and Tokyo, and those in the newly industrializing economies (NIEs), like the emerging city states: Hong Kong and Singapore. Thanks to urban density-driven agglomeration of socio-economic linkages and relations, the newly socio-economic advantageous lifestyles result with the rise of civilized ways of human life and social reciprocities. But the new dualistic (new versus old; formal vis-à-vis informal) urbanism project has its own contradictions, if not socio-economic calamities, in a globalizing world. For instance, the emergence of the so-called *World City* and/or *Global City* could be both a blessing and curse for human development in 21st Century.

The phenomenal mega *World City* is a historical process of geo-economic production networking, fuelled by neoliberal economics-driven finance capital and productive forces, crafting out the new regional divisions of labor and factors of production across different specific locations globally. Yet, the processes as well as the resulting outcomes are highly differential, if not contradictory, across different places and urbanities (Massey 2007, Sassen 2001). Taking on the phenomenal rise of London (and New York) as a kind of the *World City* and its impact on the world: greater inequality, poverty, socio-cultural and environmental deterioration in the global South…. And critical geographers like Doreen Massey timely challenged the one dimensional neoliberal project for global economic liberalization; highlighting London's economic imperialism and the moral debts of creating more global inequalities beyond the City's physical spaces (Massey 2004) – and the normative question is: whether London should make 'compensatory payments' to those regions (and people living) outside the British *World City*?

The phenomenal success of new global urbanism, as demonstrated by the *World City* and its hierarchy imperialist order, is worth being questioned in terms of the social equity and (in)equality, socio-spatial justice of regional growth, quality of life and global sustainability; while challenging the neoliberal economics globalization project championed by international financial institutes like IMF, WTO and the World Bank (SSI 2010).

The complexity of the so-called *World City* can be illustrated by the dualistic (formal versus informal, rich and poor: the very essence of the *Global City*) urban structure in major metropolitan areas, like London, New York; as well as the fast-developing cities like Seoul, Singapore and Hong Kong (Chiu & Lui 2009, Sassen 2001). More specific, the new dualistic urbanism is demonstrative by an anthropological study on the Hong Kong's Chung King Mansions, a run down commercial-residential mixed building in the heart of Hong Kong urban core, where a(n enclave of) diverse, less wealthy ethnic groups (other than Chinese) reside temporarily for economic purpose (same economic liberalization logic of the globalization project?) in the Asia's *World City* (Mathews 2011). Accordingly, the globalizing spaces of the Chung King Mansions are not just the embodiments of multi-cultural and ethnicities in the *World City* (-cum-*Global City*), but also the manifestation of the fluidity of global (informal?) commercial tourism of the migrant-entrepreneurs (vis-à-vis transnational corporations). The racial diverse new comers, economic visitors, tourists, or temporary residents, of Chung King Mansions are more or less socio-economically blocked from the rest of Hong Kong (as a *World City* or *Global City*?), but they have been nomadically making cross-borders or transitional practices for globalization, in terms of trading/re-cycling out and in various products and services (legally or illegally), to and from various parts of the (developing) world which are essential for the informal globalization process....One specific form of the informal ethic group based business networks is connecting the developed *World City* (*Global City*) to the rest of the developing economies and provides instrumental linkages between the old and new, the formal and informal, economies (Ross 2011, Sassen 2007).

2.2 The Developmental Problématique: New Urbanism beyond the *Global City*?

Against the back drops of high-end iconic mega architectural monuments of transnational capital financed urban form (Sklair 2010), new urban spaces are also the hub of economic nomadic transits for the low-end (free-riding temporary economic migrants) globalization pilgrimage (Mathews 2011). This is what the embeddedness of the complex system of socio-economic relations in strategic sites of the

contemporary urban landscape – the bolts and nuts of the *Global City* as conceptualized by Saskia Sassen (Acuto 2011, Sassen 2001, 2007). Yet, the specificity of new urban form is also characterized by its dual networking function and effects. The new informational cities in 21st century are global hinges, serving instrumental functions for global-local socio-economic, cultural and political forces, to their hubs and spokes located at different geo-political sites of relations.

Putting the *World City* onto its globalization contours – mirror-imaging the phenomenal *Global City* (Sassen 2001, 2007): the new urban form of *Global City* is more than that of the idiosyncrasies of the *World City* (Massey 2007, Taylor 2004). The specific constellation of socio-economic and power in the *Global City* is more embedded in their structural linkages, lineages and inter-play between the contradictory globalization project and urban form on the one hand; and the dynamic globalizing forces and social agencies' (critical) engagements on the other. More specific:

> Global cities are thus more than just national or regional gateways: they are connected to the widest possible tier of human interactions and they represent the highest echelon of the global urban hierarchy of cities around the planet. A global city is a type of world city that exists not solely as an articulatory site of planetary and regional urban networks, but also as a functional entity of those globalising processes of 'time/space compression' that are reconfiguring the geography of social relations and resulting in a 'multifaceted transformation of the parameters of the human condition' (Bauman 1998). It is, quite simply, in an epoch dominated by capitalism and growing interconnectedness, a strategic hinge of globalisation (Acuto 2011: 2968).

To recapitulate the genesis and *problématique* of the *World City*, it is driven by economic forces at cross-borders and transnational realms, under the auspice of the nation state and international financial institutions, with social agents' crafting of transnational practices. But all these socio-economic activities are embedded in multi-racial and new ethnicities, though fluid and transient in the process, bring along with a new creation of transnational spaces and new forms of cosmopolitanism, which are distinctly different from the one brand (high-end, iconic) demonstrative high culture and high prices goods and services in the urban core. Hence, the global urbanism as demonstrated in the phenomenal *World City* is the embodiments of

a variety of contradictory-dualistic urban processes, experiences and life chances – and the socio-cultural dynamics of such urbanity will shape the destiny of global sustainability: *Cosmopolitanism for Whom? New Urbanity with(-out) Equity, Human Rights and Justice*?

2.3 Torn Between Multiple Mobilities, Developmental Contradictions and Urban Dualism?

The case of *World City* has structurally anchorage with the multiple mobilities, within and beyond the specific locations of the city. Here, long-distance and frequent movement for some people is not new; what is now distinctive is the development of a 'mobility complex', large scale en-masse, hyper-speed and just-in-time as shown by the advanced informational logistic industries. This involves a number of interdependent components that, in their totality, remaking production-exchange-consumption, pleasure-seeking, work and family life, as well as friendship building. The instrumentality of global urbanism is characterized by a new configuration and compressed constellation of the urbanity with mobility complex, economy and society with the hyper-mobilities; and the new dynamic components are (Urry 2010: 199-200).

The new multiple mobilities regime goes along with the hegemony of neo-liberal economics, shaping the market in liberalizing economies in the last few decades! *Global City* serves strategic function for advanced capitalism in the information age; Acuto (2011: 2968) rightly specifies that a *Global City* can be characterized as a social (urban) entity: as node of global flows; performs multiple and significant world city functions; contains central command roles within such functions; maintains an urban order that balances aggregation and dispersion; and projects such order towards the global through entrepreneurial activities.

The multiple mobilities driven urbanism enhances creativity and the smartness of the *World City*; driving its networking and communicative advantages that is historically new: the advanced use of informatics - transportation logistics for people and goods, paralleling those explosive information and knowledge (a form of valued and priced commodities in service economy!) mediated by information and communication technologies (ICT). Here the importance of the multiple mobilities of the creative agencies (middle class at large), for business

and leisure traveling, and their informational derivatives like the networking of information-knowledge and social exchanges, should be stressed. According to John Urry (2010), Zygmunt Bauman (1998: 2) rightly highlights that "Mobility climbs to the rank of the uppermost among the coveted values – and the freedom to move, perpetually a scarce and unequally distributed commodity, fast becomes the main stratifying factor of our late-modern or postmodern times". Since the late 1990s, the globally sourced-consumption in the 'rich North' escapes from specific sites, as populations are moving in, across and beyond 'territories' – urban contradictions-driven dualism is the consequences of global-local development.

The new logics of the mega, multi-mobilities regime are that people are torn temporarily and spatially in new global order and urban dualism: the individuals are nomadic in fast-commuting, cross-borders and cross-cultural modes; and through these processes, they create new spaces and networks, in addition to have a new (sometimes conflicting) identities on the project with a worldview of their own of being "free" from, or moving beyond, the geo-spatially-bound milieu or any geo-territory. But the crises are imminent, against eco-societal sustainability.

In the informational 21st century, the crisis-ridden capitalism develops with a whole array of contradictions; not just the excessive consumption-driven wastages and high-carbon emissions in our limited-to-growth Earth, but also social calamities driven by the commodification of human life chance and socio-economic reciprocities, resulting in socio-economic and culturally divided and polarizing world. All these drive humanity towards many crises, let alone global and regional financial crises in the last two decades, under the shadow of global climate change!

2.4 The Trilogy of Developmental Myths in Hyper-Modernizing Transnational Urbanism

Newly industrializing economies (NIEs) in Asia, like South Korea, Taiwan, Hong Kong and Singapore, follow economic development trajectories of Japan – the first Asia's modernizing country, to transform their nations from a developmental state to a semi-welfare state (Peng & Wong 2010). Yet, there is divergence and inherent contradictions of development when these economies survive in the waves of globalization (Ban 2010). The

developmental tensions are more or less represented in the emergence of the dualistic urban logics; more problematic, the divided socio-economic opportunities within the same urban space, in the so called *World Cities*: Tokyo, Seoul, Taipei, Hong Kong and Singapore. The 21st century (new and phenomenal?) urban contradictions of the globalizing spaces and their local hyper-modernization are embedded in three separate mythical arenas but with repercussions beyond their localities.

First and foremost, it is the problematic *World City*, with the accumulation, agglomeration and high frequencies flows of people, knowledge and capital, focusing on certain major communication and transportation hubs with global networks in different regions: Tokyo in Asia, London and New York at the each ends of the Atlantics, following by regional hubs or national economic capitals of the NIEs and Brazil, Russia, India and China (BRICs). Under globalization, cities become the nodes and hubs of the spatially extensive flows of various kinds and the sophisticated, intensive-cum-extensive networks of exchanges and communication – ranging from globalizing formal or informal economic networks to transnational socio-cultural networks of various social agencies. But the burgeoning analyses on the world of cities, especially the fast modernizing urbanization regions, are always biased for wealthier urban spaces (Robinson 2011: 3).

Second, the new global (-regional-local) production networks have been embedded by neoliberal economic doctrines (of the World Bank, IMF and WTO alike) for opening or liberalizing the market growth model, with the promotion of export-oriented, or free enterprise advantages, special economic zones; like those special economic zones championed by Asia NIEs and the BRICs, China and India in particular, which are integrated as the national industrialization strategy with strong state direction, turning the economic zones into catalysts for export-oriented industrialization" (Bach 2011, Bhattacharya 2010). Accordingly, the new mode of industrial-spatial policy for economic development in these NIEs creates these zones, "serving premised on infrastructure and transformative of the national economy, focus on a range of objectives from diversifying a regional economic base to supporting the development of small and medium enterprises, information processing, or off-shore banking, insurance and securities." (Bach 2011: 103-104, McCallum 2011). But since these export-oriented, special economic or enterprise, zones are so deeply

embedded in their regional environment that they become hybrid zones/cities and enable the formation of the dualistic world cities.

Last and more recently, the *World City* thesis has been reinforced by a new breed of labour forces, apart from the nomadic poor as noted in the case of Hong Kong's Chung King Mansions (Mathews 2011), namely those creativity and innovations fostered by the so-called creative classes in smart cities. Here, the human face of new urbanity in 21st century should be emphasized. Synthesizing research works on the mobility of creative workers in European cities, a recent study challenges the thesis about the high(er) mobility of the creative class – at least it is not the case in European creative hubs (Martin-Brelot, et.al. 2010), which highlights that (1) the European creative class is not as mobile as Florida (2002) suggested; (2) the so-called 'personal trajectory factor' (or 'personal connection factor'), that is not taken into account by Florida (2002, 2005) and other writers, is very important for the European context. In other words, European (and to a large extent in Asia's differential linguistic and cultural heritage) creative workers in multicultural milieu do not seem to be much more mobile than their counterparts in (English speaking) USA. Since creative people are having their own unique character-personality by and large… it is rightly to stress the importance of the localness (vis-à-vis the globalizing ones) and their creative idiosyncrasies: there is the strong embeddedness of European talent workers in the local labour markets through personal networks and the 'Rooted territoriality' is one of the important conditions for the preservation of cultural diversity in Europe. It keeps the patchwork of national distinctions and local customs in a sustainable shape (Martin-Brelot, et.al. 2010: 866).

3. Energy Crisis as the Poverty of Technology: Fukushima 3.11 as Apocalypse?

Although the last nuclear production unit in Hokkaido had went off-line on 5.May 2012; another (two-reactor unit, the only first ever) one at Oi town, Fukui prefecture, has been back to supply electricity in July 2012! But still, Japan is an almost nuclear free country not just as its Constitution prescribes, but as a sudden death of nuclear technology since 11th March 2011 (*the 3.11*) multiple disasters of Tohoku earthquake, tsunami and the near-to-melt-down of Reactor 1, 2 and 3 of Fukushima Daiichi Nuclear Power Plant. All Japanese nuclear power plants have to shut down for not just regularly (every 18-month

period) for maintenance, but after the 3.11, they under a more vigorous and controversial stress test regime; plus all is subject to final approval by local municipalities and regional governments where the plant locate. The socio-political and technological complication of, controversies around, the procedure for approving, and against, the re-start of nuclear power plant are more than obvious at the post 3.11 era.

3.1 Crisis-Ridden Nuclear Power Technology: Not Renewable and Alive Anymore!

The problematic crisis-ridden nuclear power technology reflects the post-war myths on the de-militarization of the new uranium-isotopic power and the controlled radiation by the high-cost and questionably application of nuclear physics and engineering for peaceful use of nuclear power; though once questioned in the 1979 Three Mile Island accident and the 1986 Chernobyl disaster (Sovacool & Valentine 2012; Macer 2012). The mythical scientific regime confronting unprecedented risk of nuclear engineering is much under the critic-analytical delineation on *The Risk Society (Risikogelleschft)* by Ulrich Beck (1992, 1999).

Missing out the risks of nuclear energy for civilian use for the post WWII (1950s-1980s) economic growth, and forgetting the disaster-ridden nuclear radiation when searching for global clean energy (1990s-2011), nuclear power has been claimed even in reports by International Energy Agency that it should be raised to 25% of global power supplies. The 3.11 nuclear disasters are therefore in waiting given the poverty of technology, ignorance and mythology on high tech en masse.

Following the nuclear power development in USA and France, but uneasily against the victimization of atomic bombings in Hiroshima (6.August 1945) and Nagasaki (9.August 1945), nuclear power accounted for 26% of total electricity supplies in Japan before the 3.11. And Japanese government even once in 2010 proposed for a stronger role of nuclear power (raise up to 53% of total electricity power) to cater energy demand for 21st century.

The energy regime of Japanese system is not just solely dependent on external supplies of mostly fossil fuels, but also driven by the ultra-industrialization with high volume of energy consumption. Nuclear power development is much driven by its energy based, hyper-industrialization for exports and locally,

exceptional huge electrification of urban life since 1960s. Japanese society is electricity based so to speak! Though nuclear power, for peaceful use, development is against its historical tragedies: the double (Hiroshima & Nagasaki) atomic bombings and the contrast to its constitutional forbidding of nuclear weapon (the triple negation on the building, posses and use)…

But the 3.11-disasters reveal the paradigmatic puzzles: the realism of the poverty of high-tech based new energy sourcing at the post WWII (1950s-80s) and at the turn of the new millennium (2000-2011). The ending of nuclear power in Japan in some sense is not as accidental as it is thought due solely to 3.11 disasters, but it is embedded in the exponential growth of risks in large scale (speculative) high-tech system deriving from nuclear weaponry to kill! To recapitulate, human lives and ecology are to be terminated in nuclear energy regime; the matter is time beyond *homo sapiens* (for nuclear radiation-exposure for instant death and the thousand-year nuclear radioactive decay) to survive!

3.2 The 3.11-driven Energy Regime Change beyond Japan (Germany?)

The genesis of the normal accidents of nuclear power – as large scale high-price and high-tech energy system, in Japan is also structurally embedded with it governance structure and the inertia to supervise and to govern. There is strange relationship between governmental nuclear regulatory bodies and energy providers: the high-tech specialists differentiation and their cronies: the best experts work for nuclear power suppliers, the meritocratic ones stay within the governmental ministries academic and regulatory bodies; plus the old-boys (OB) system for the early-retired officials serving nuclear power companies....All are in crony high-tech developmentalism!

Confronted with the unprecedented 3.11 disasters, it is confirmed from numerous media and scientific sources that "None knows what happened at/after Fukushima 3.11"… But it is evidently confirmed that the nuclear melt-down at Fukushima Daiichi Nuclear Power Plant has blown up all superb euphoria and myths under nuclear power hegemony. Even the strategy for "de-commissioning" Fukushima Daiichi Power Plant (6+4 units) is a totally new learning process (with 40+ years!), for Japan as well as for the world to learn from the beginning (the re-making and re-learning for nuclear-power plant (after the

disaster) de-commissioning); since Chernobyl's totally cover-up with building materials have not been the "de-commissioning" case.

Except the two-reactor unit Oi plant in Fukui prefecture, all 54 Japanese nuclear power generator-units are either stopped, offline or undergoing maintenance; plus the Fukushima 6+4 reactor-units will be decommissioning (the 40+ plus year project). As long as more de-commissioning is in the pipeline, the poverty of both technology and energy (electricity in particular) supplies is more than obvious. In Summer and Winter 2011, there were campaigns to reduce electricity consumption by business and household sectors, with an overall targets of minus -15% for Summer and minus -10% for Winter. By and large, the overall targets have been reached for 2011 and early 2012. Still, more serve electricity conservation will be needed for 2012 onwards as nuclear power will be literature off-line and at ground zero!

Strategies for the 2011*Save Electricity Campaign* have the following initiatives:
- shifting production and consumption (daily production –cum- consumption re-scheduling) to minimize use of electricity during peak hours and shifting electricity load to non-peak periods,
- re-transportation and re-logistics: public transportation network re-scheduling and reduce frequencies, within the wider re-logistics regime for energy conservation,
- enhance efficiency of (no, or new LED) lighting with alternative conservation technologies,
- eco-friendly and energy saving lifestyle, like dressing simple: from *Cool-biz* to *Super Cool-biz*;
- air-conditioned temperature indoor adjusted from 25℃ to 28℃
- off-peak production-consumption rescheduling is likely to be continued, especially in metropolitan areas for 2012 onwards.

Demonstrated by Japanese successful effort to save (-15% electricity in 2011/12) energy with social innovations to cope with the poverty of energy – in April 2013, the projected electricity supply and demand for 2013 Summer will be in surplus of not less than 5% in whole (and each of the ten regional power grids in) Japan; the move towards a permanent extinction of nuclear power in Japan is the likely scenario, if there are more pro-active policy initiatives to nurture the growth, or the rejuvenation, of renewable energy: corporate sector and local

municipalities have taken their goal to achieve some form of energy self-sufficiency by exploiting their geo-territorial advantages for renewable energy. Hence, one obvious outcome of the disasters is a change of Japanese worldview on energy consumption, back toward for good conservation of all energy – this lesson should be learnt by many developed and developing for their energy security and global sustainability!

4. The Global (un-)Learning of Fukushima 3.11 for Energy Re-sourcing

Responding to energy crisis, imports of foreign assembled solar energy system from overseas have been popular since 3.11. The Suntech (once the world largest solar PVC producers in terms of volume – but bankrupted in March 2013) and the Yingli (one of the official sponsor for 2010 FIFA World Club), both from China, are becoming the major competitors, vis-à-vis, their Japanese counterparts' re-importing or re-directing renewable energy supplies from their overseas or local production lines, like photovoltaic cell (PVC) by Kyocera, Panasonics, Sharp and Sony.

Furthermore, many industrial initiatives have been taken up to re-making of, and techno know-how transfer for, new energy supplies. For example, Kobelco, an industrial conglomerate, is expanding its stream-driven generator, for exploiting small scale local geothermal energy (hot-spring exploited power generator, and heat-energy-exchange system), benefiting many localities where local small scale geothermal producers have been exploiting hot-spring spa for leisure and hospitality industry; the new initiatives extend their move for local alternative energy re-sourcing at large.

In response to the structural aspect of the poverty of energy supplies, the deregulation and new pricing mechanism for renewable energy in Japan is subsequently established after 3.11. In late

August 2011, new law to promote renewable energy has been enacted and will become law in July 2012. Accordingly, all major 10 electricity suppliers like Tepco, Kepco, have to take, buy-in, the electricity supplied by small/local suppliers at the price set by the government: 42yen / Kwh for Solar, 23.1Yen / Kwh for Wind, 27.3Yen/ Kwh for Geothermal… Furthermore, in 2013, there are policy initiatives to liberalize energy and power supplies market, not least with the separation of electricity generating from the distribution network – to be owned and operated by different agencies, towards the energy supplies smart-grid.

Energy sensitive development projects, like small scale installations deriving hydro-, solar, wind, geothermal and bio-masses energy become growth sector not just for large industrial (energy) firm, but also for the survival of small and medium enterprises (SME) which have been dependent upon an outdated, not-so-smart, energy (electricity) energy grids dominated by ten major electricity companies in Japan. The new law enacted in late August 2011 for re-sourcing new energy should enable a liberalized regime of energy supplies and the availability of alternative energy consumption, at the very least at the local level.

The developmental goals for renewable energy are multi-folds, in addition to the demand management through energy efficiency gain and conservation new technologies application in production, consumption and exchanges, within a wider policy context of CO_2 emission reduction originated from the (post-) Kyoto Protocol. All the post 3.11 policy initiatives aim for the increasing share of renewable energy from less than 10% (2010) of the total electricity supplies to 20% (or more) for year 2020. Indeed, it is a paradigm shift from nuclear to clean and renewable ones of energy re-sourcing globally, regionally and locally. The energy regime change in Japan after 3.11 is likely as follows:

Energy Development Scenarios in Japan: pre- and post- 3.11 Disasters

	Nuclear	Fossil Fuels	Renewable: Solar, Wind, Geothermal, etc.	Conservation + Efficiency
2010 (2011) actual	28 (10)	60 (LNG:39.5)	10	3
2010-planned for 2030	53	26	21	0
Post 3.11 Scenarios	0-10	50-65	25-30	10-15

More specific for nuclear energy, there were 436 nuclear power reactors in the world in 2011 and 57 more were in commissioning, building or completing. Here, the sudden-death of nuclear power in Japan

is indeed historical, compared with the planned de-commissioning of nuclear power in Germany in 2022 and the related debates in European countries. But oppositely there is euphoria for building more

nuclear power (plants obviously not just) for civilian use in:

- BRICS (Brazil, Russia, India, China and South Africa) countries for hyper-industrialization and
- Developing countries in the conflicting zones like Pakistan, India, and the Middle East.
- In Southeast Asia, nuclear power is more than welcome by most ASEAN member

Paradoxically against the sudden-death of nuclear energy in Japan, Japanese government through its bilateral aids and technology transfer initiatives, in addition to trading supports, Japanese nuclear power plant builders, like Toshiba, Hitachi and Mitsubishi Heavy Industries alike are still being commissioned to develop nuclear power plants around the world, particularly in ASEAN countries: Indonesia, Malaysia, Thailand, and Vietnam.

Perhaps the 3.11 disasters have never been learnt by Japanese business, trading and diplomatic communities once the risks and disasters are externalized territorially and for export-oriented growth; juxtaposing strong competition between / among rival nation states in East Asia: hyper-industrializing giants of South Korea and China, geo-political position of newly energizing Russia and the unpredictable solo communist North Korea.

Obviously, the contradictions and controversies on nuclear power development will have security ramifications and geo-political consequences (not if but) when another nuclear fall-out occurs in those hosting (less developed) counties – like Japanese 3.11 history, multiple disasters are in waiting…. And nuclear power in the geo-politics of energy re-sourcing will not be withering away, but be more problematic for human survival in the decades to come!

After almost 18 months of debates over the nuclear energy controversies, Japanese Diet (parliament) in September 2012 supported a government panel proposal to phase out nuclear energy – contrasting the pre- 3.11 energy development plan for raising nuclear power supplies to 50% of the total energy sourcing by 2030. But the suggested deadline for the nuclear power phase out for 2040 is questionable due to the economic and technical difficulties in terms of re-sourcing back to fossil fuels (coal, gas and oil) and acquiring renewable (solar, wind and bio-fuels) ones; the resumption of the building for a new nuclear power plant at Aomori prefecture in mid-September 2012

is contradictory to the policy vision for nuclear free Japan – what most observers worry about!

More important, Fukushima 2011.3.11 has strong ramification beyond Japan; not least as Germany's *Energiewende* (Energy Change) for a rapid exit from nuclear energy by 2022 and strong initiatives for enhancing energy efficiency and new re-sourcing for renewable energy. The move towards new clean –cum- renewable regime of energy re-sourcing is also juxtaposing new energy initiatives taken up by European-wide stakeholders.

The 2011.3.11 Fukushima Crises remake the course for not just energy security but the sustainability for all – United Nations' new initiatives for *Sustainable Energy for All* (United Nations 2011) announced goal to double the share of renewables in the energy mix by 2030. More specific, the new modus operandi is the "twining" of energy efficiency (enhancement) and a shifting for the renewable: many countries (e.g., USA) and regional bodies (like the EU) are beginning to link the two through targets and policies along the roadmap for sustainable energy security – questing for the energy alternative access, energy efficiency improvements, and renewable energy deployment (REN21, 2012: 15; UNDP 2013).

5. Clean Water and Food Supplies in Hyper-Modernizing World Cities?

The Earth has many water resources: about 70% of the Earth's surface is water-covered. But sea water accounts for 97.5% - salt water is filled with salt and other minerals, and humans cannot drink this water; though expensive desalination-distillation is available. The remaining 2.5% is fresh water: 2% of the water on earth is glacier ice (could be melted for drinking) at the North and South Poles but it is too far away from people. The emerging challenge is obvious that human society uses only less than 1% of the Earth's (fresh) water; how to conserve (reduce, re-use and re-cycle) the precious fresh water resources is the survival challenge for (post-) modern society – policy initiatives for Integrated Water Resource Management (IWRM) and practices for Capacity Building should be in place, to provide a basic framework and action repertoire for clean-water-for-all (Leidel, et al. 2012).

Fresh drinkable water and food supplies will determine human survival (Bizikova, et al. 2013)! Conflicts are usually arising from water and food

crises, driving the propensity for violence and war.... In actuality, access to safe and climate resilient drinking-water resources, as well as sanitation, is increasingly critical in an era of continued, urbanizing, population growth under the Climate Change – Ensuring access to safe, resilient and clean water and sanitation, particularly for the world's poorest population and disadvantaged groups, will accelerate attainment of multiple environment and health-related goals for sustainable development (WHO 2012). This calling has been made for decades in development literature and donor-agencies' advocacies in (and still) meetings after meetings…In fact, one of the United Nations (UN) Millennium Development Goals (MDGs; 2005-2015) is to halve the proportion of the population without sustainable access to safe drinking water and basic sanitation; and in Asia Development Bank (ADB) policy calling: *Attaining Access for All: Pro-Poor Policy and Regulation for Water and Energy Services* (ADB 2010). Hence, ADB's water and energy policies also explicitly embody its goal of achieving poverty reduction.

Creating the supportive conditions for pro-active policy for fostering green economy in the course of sustainable development and poverty eradication, and along the UNMDG is the key calling of Rio+20!

Feeding global population, particularly to those poor-to-poorest people, is a daunting task, challenging the humanity in the last two centuries! Collaborating with the framework of the Rio+20, the promotion of sustainable food systems (from agriculture to food retailing) is recently undertaken by United Nations' FAO-UNEP in 2012, aiming to enhance resource efficiency and clean consumption-production along the food value-supplies chains, while ensuring food security. The programme will involve all producers, retailers and consumers, and their agencies. Supported by 14 national governments, United Nations Conference on Trade and Development, UNDESA, eight NGOs and three international business organizations that together represent 325 firms, the FAO-UNEP-led Agri-food Task Force on Sustainable Consumption & Production (SCP) works to create knowledge platforms to foster public-private and business-to-business partnerships for sustainable goals (UNEP 2012: 35).

If the scarcity of water has a natural cause, the food shortage is human-made, mostly thanks to capital and finance industry in advanced capitalism.

When seemingly everything has a market price is challenged by progressive forces, like David Harvey (2010), Michael Sandel (2012) and Stiglitz (2012). Global food crisis is a chronic one, with the under-supplied -cum- over-priced food; all threatening food (and commodities) security. Inadequate food supplies and inequitable distribution have been a global problem for long; much even worse when water and foods are being traded in terms of future commodities (hedging) exchanges, under a regime of global finance capital: seasonal and cyclic rise-and-fall of the commodities pricing has been replaced by calculative-speculation and hence price volatility – mostly beyond the parameters of normal supplies and demands in reality. More specific, it is the two-decade-long global "financialization" of food supplies system by a rapid growth of financial (de-) investment (-cum- liberalizing-deregulation) in agri-food business within and beyond the derivatives (of commodities trading) markets (Clapp & Helleiner 2012).

Under the same capital regime, the threat now is the "derivatives" of water to global finance capitalist speculation.... By the same token, adequate supplies of clean water and food enabling better health conditions are the important benchmark of sustainability of urban policies taking account for social equity, environment, and development – fair globalization(?).

But the Rio+20 outcome document is just some form of consensus building but far providing the directional (with vortex), comprehensive, guide for the rocky journey towards sustainability!

As we are in a hyper-modernizing *modus operandi* under global(ization of) advanced capitalism, creating urban dualism with the "divided" cities; far from developing an equitable and better society, the hyper-modernism in globalization has produced more social disasters in the period 1960s to 1990s than ever before (Lai 2011b).

In spite of the achievement of poverty alleviation that of halving the number of people still living on less than $1 a day by 2015 as stated in the UN's Millennium Development Goals, recent studies confirm the continued worsening of global inequality, over the last half century (Soros & Abed 2012)! Highlighting the polarization of life chance and differential impact of economic liberalization, a recent study tracks the trend of global income inequality and confirms that global inequality is still

the dominant trend for the last few decades (Ortiz & Cummins 2011: 11-19; see Fig.1) – using a Power-Purchasing-Parity (PPP) dataset in constant 2005 international dollars to measure the distribution of world income from 1990 to 2007: while the overall picture of global inequality improves under the PPP measure, as compared with the market-exchange rate (where all national income estimates are compared in constant 2000 U.S. dollars), the data still confirm severe income disparities. In 2007, the top 20% of the world owned 70% of total income compared to just 2% for the bottom 20%. And the poorest 40% of the global population increased its share of total income by an insignificant 1.7% in the period 1990 to 2007. Furthermore, Milanovic (2005, 2009) and Cornia (2003) confirm the historical growth of global income inequality since 1960s (to 2002, most updated data available; see Fig.2). In all, we can conclude that, irrespective of method of measurement on global income disparities, global income inequality remains exceptionally high throughout the post World War II modern history (Fig.3).

Figure 1:
Summary Results of Global Income Distribution by Population Quintiles, 1990-2007(or latest available) in PPP constant 2005 international dollars

	Global Distribution(%)		
	1990	2000	2007
Q5	75.3	74.4	69.5
Q4	14.9	14.2	16.5
Q3	5.4	6.3	7.8
Q2	3.0	3.4	4.2
Q1	1.5	1.7	2.0
#of observations	99	127	136
%of global population	86.1	91.1	92.4
%of global GDP	85.3	87.4	88.6

(Source: Ortiz & Cummins 2011, p.16)

Figure 3:
Estimated Global Gini Indices, 1820-2002

Year	Gini Indices
1820	43.0
1850	53.2
1870	56.0
1913	61.0
1929	61.6
1950	64.0
1960	63.5
1980	65.7
2002	70.7

(Source: Milanovic 2009)

Figure 2:
Visualization of Global Income Distribution, 2007 (or latest available) in constant 2000 US dollars
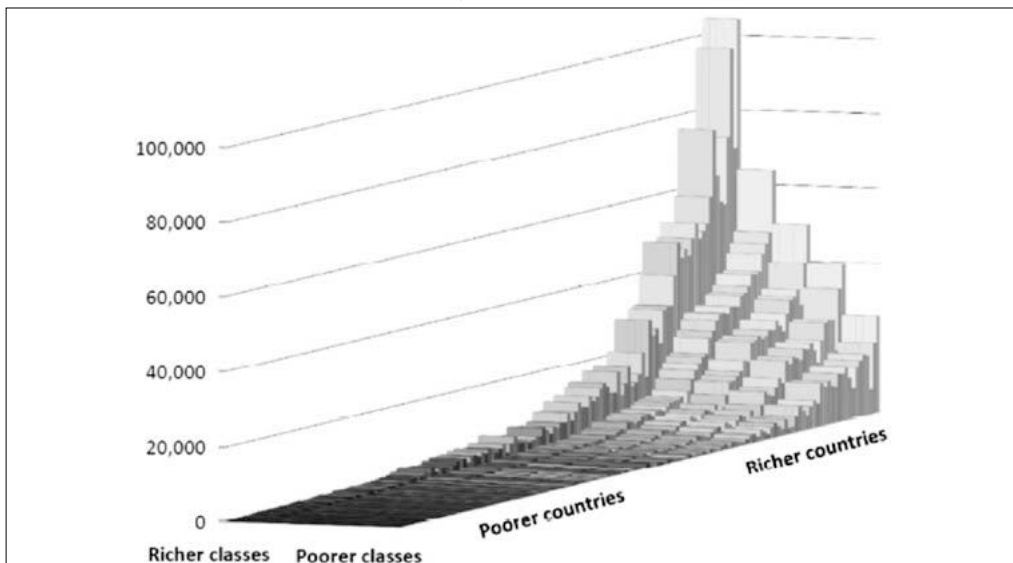
(Source: Ortiz, Isabel & Matthew Cummins 2011, p.13)

The new transnational urbanism under hyper-modernization, characterized by the dualism of life chances, is driven by the hegemony of neoliberal economic ideologies, resulting in the globalization-driven social polarization. More specific, the advanced use of ICT in banking and financial sectors, coupling with the logistics and trading operations for global manufacturing and trading, is instrumental in creating a free global market of advanced capitalism: *digital capitalism* – the condition where ICT networks are directly generalizing social and cultural range of capitalist economy as never before (Schiller 1999). In the information age, *digital capitalism* therefore is predominantly a global corporate-led market system. It is also free to physically transcend territorial boundaries and, more importantly, to take economic advantages of the sudden absence of geopolitical constraints on its development. To recapitulate, the present form of informatization of people's work and societal (virtual) encounter has reinforced a dual, if not divided global society: the informational-based informal economy is juxtaposed with a down-graded labour-based informal economy resulting in a spatial structure: a city which combines segregation, diversity, and hierarchy (Castells 1996, 2000). The ICT enhances a flexible production regime, generating more wealth and global economic activities. But far from developing an equitable and better society, the ICT-driven super-modern society has produced more social disasters in the period 1960s to 1990s than ever before (WCSDG 2004).

Notwithstanding that all of these are the consequences of the globalization project! Not without exception, all developing economies aided by transnational corporations networking have been integrated hierarchically into the global system of capitalism, and the globalizing process of integration widens the gaps and causes socio-economic divisions and divides between communities, countries, and regions. Even the neo-liberal economic ideologies - oriented international bodies, like the Organisation for Economic Co-operation and Development (OECD) recently questions the globalization-driven global problems, aiming to re-examine the global mitigation for poverty and development problems – shortfall of bilateral and multi-lateral aid for developing economies in the midst of global change (http://www.aideffectiveness.org/).

As the (since 2008) global financial crises continues, the fundamentals of advanced capitalism have not be altered much. Sadly, global food insecurity is worsening but the outcome of the Rio+20 had not addressed it either....

6. The Eco-Social Justice: Sustainable Finale for Whom in/beyond 21st Century?

Haunted by the Fukushima crises and global financial crises (since late 2008); driving continued insecurity upon global development, there is irreversible trend and consensus towards alternative, clean, new and alternative energy re-sourcing: global new investment in renewable power and fuels increased by 17%, to a new record of USD 257 billion. Including hydropower projects of over 50 megawatts, net investment in renewable power capacity exceeded that for fossil fuels (REN 21: 7). But there are challenges ahead for steering the course for sustainability in and beyond 21st Century.

6.1 New Cosmopolitan Quest for Eco-Humanity Synergy in the Information Age?

But what is the future (crisis?) for cosmopolitanism in the informational 21st century? Critical urban theory should actively take on the challenge of the informational city, as posed by emerging urban growth ideologies. David Harvey (2009: 17-36) has recently challenged Immanuel Kant's conception of cosmopolitan law, criticizing it as having dependency upon certain kinds of restrictive geographical thought that implicated what he thought to be the finite qualities of a globe divided into discrete culture-language areas, or territories. In other worlds, the notion of global cosmopolitanism is in question; the variations of the differential, or multiple, modernity are more likely the reality in the advanced informational, digital capitalism in a globalizing world (Jazeel 2011).

The challenge seems to be met by recent global social activism. But in a highly globalizing world in the information age, the emerging cosmopolitanism is embedded with the diversities and complexity of human civilization in, through and beyond cross-cultural and cross-border exchange-encounters and flowing. By facilitating and reinforcing various civic progressive networks for the better world (say, the campaigns to end global poverty, global peace movement and sustainable future), vis-à-vis the globalizing economic hegemony shaped by international business and governmental organizations (IMF, World Bank and WTO; G8, G20 and World Economic Forum), it is possible to make transnational advocacies network and to create cosmopolitan coalitions of progressive social

agencies for sustainable future – the so-called cosmopolitian realpolitik (Beck & Grande 2010: 435; Halle et al. 2013; Lai 2008).

To quest for sustainable future in a globalizing risk society in the information age, the cosmopolitical realpolitik should be articulated (Beck & Grande 2010: 436) with the following premises:

- he new historical reality of world risk society is that no nation can master its problems alone; those who play the national card will inevitably lose.
- global problems produce new cosmopolitan imperatives which give rise to transnational communities of risk.
- international organizations are not merely the continuation of national politics by other means; they can transform national interests.
- cosmopolitan realism is also economic realism. It reduces and redistributes costs because costs rise exponentially with the loss of legitimacy.

The essence of cosmopolitanism is a specific critical engaging approach to ensuring that one's own (individual or collective) interests are promoted and made to prevail. Cosmopolitan realism calls for respect for one's own and everyone interests, and taking an inclusive position for ideals and virtues. In this process of recognizing one's and everyone position – for the pursuit of individual and (compatible to) collective goals, juxtaposing the national and (serving for the) global ones, interests become 'reflexive national interests' through long term engaging strategies of self-limitation; more precisely, empowerment arises from self-limitation. In reality, however, the path towards a sustainable one is rocky and for cosmopolitan realpolitick, it is full of challenging contradictions. The right approach facing these challenges is a critical re-examination and reflection on the ethics and norms of human civilization on the one hand, and bio, ecological ethics of the natural world on the other. Hence the future for cosmopolitan realpolitick is open; all subject to our progressive endeavour (Beck & Grande 2010).

Strategically, the new cosmopolitanism call for fresh critical engagements of individuals in global system; thanks to new media of the Internet and the "Clouding of ICT", people can engage in global affairs more than ever – one forgotten dimension of social innovations originated from people can be rejuvenated for participatory actions, in and beyond the cyberspace, with all kind of self-generating media

contents (Lai 2008, 2011a). And seemingly there is an emergence of new cosmopolitanism-driven socio-politicking for the reflexive eco-modernity (?)

Sharing strong affinities with Doreen Massey's calling for geographies of responsibility, the social agency in geo-politics thesis of Iris M. Young (2003, 2004, 2007) proposed a 'social connection' model in which political responsibility is derived from the ways in which different actors are shaping, as well as being shaped, in structural social processes. The new political responsibility represents a collective practice, articulating social justice with the evaluation of individual conduct and social interaction in a non-reductive way. This alternative is a new model of "shared responsibility" between individuals and the communal one in which responsibility is distributed across complex networks of causality and agency (Barnett 2011: 252). Here, the normative challenge for the *World City*, the globalization project at large, is echoing the critiques on the inequalities derived from new labor process in capitalism.

The mistaken functional specific land use in cities throughout the last century is doomed to failure! For future, a socio-cultural compatible, small scaling and mixing-up of urban land/space use is the key for sociable, livable cities: people need spaces for socio-economic reciprocities, aiming and achieving socially sustainability. To achieve this, we need both normative appeals and positive logical reasoning, taking into account of multiplicity of urbanity in a globalizing world; say the least is the respect for social, economic and cultural rights and human needs at large.

Without a significant change of the pro-growth development model as championed by the market-friendly international governmental organizations, like IMF, World Bank and WTO, human civilization will be destined to be suicidal. Perhaps, Karl Marx and Friedrich Engels' characterization on the inherent contradictions of the crisis-ridden capitalism is partially right, as in the context of 21st century, the pro-growth development model is grave-digging: strong population growth in urban centres, along with multiple mobilities, excessive global consumption and rising carbon emissions… all are destroying human life and ecological worlds (Urry 2010: 192) – global climate change is an irreversible destiny: frequent flooding and drought, and (un-)seasonal disasters and catastrophes, plus extreme weather conditions become the norm, with no exception. And the only way for human survival is more or less to

mitigate such global crisis in the coming decades, pursuing ecological modernization.

6.2 Mainstreaming of the Re-Sourcing (Renewable) Energy since 2011?

Against economic uncertainty, technological challenge and business inertia, the European Union built more renewable energy capacity in 2011 than ever before, and the new clean energy sector accounted for more than half of all newly installed electric capacity in the region (since 2007) – more than 71% of total additions. At the global level, renewable energy continued to grow strongly in all end-use sectors—power, heating and cooling, as well as transport—and supplied an estimated 17% of global final energy consumption; for instance, in 2011, about half of the new electricity capacity installed worldwide was renewable based (REN 21, 2012: 7).

In response to the re-sourcing problem of, and for renewable, energy after the 3.11 disasters, Japanese government adopted a new law for renewable energy re-sourcing (see above); this is in line with the related initiatives to promote sustainable power supplies. Historically, power generation policies are the most strategic-effective move for energy-paradigmatic shift:

> Feed-in-tariffs (FITs) and renewable portfolio standards (RPS) are the most commonly used policies in this sector. FIT policies were in place in at least 65 countries and 27 states by early 2012. While a number of new FITs were enacted, most related policy activities involved revisions to existing laws, at times under controversy and involving legal disputes. Quotas or Renewable Portfolio Standards (RPS) were in use in 18 countries and at least 53 other jurisdictions, with two new countries having enacted such policies in 2011 and early 2012. (REN 21 2012:14)

In short, the Japan's shift away from nuclear energy, with more energy resourcing for the renewable ones; the major development recently is the United Nations' Sustainable Energy for All initiative – calling for a global target of doubling the share of renewable energy by 2030 (along with targets and to ensure universal access to modern energy and to double the rate of energy efficiency (IEA 2012: 212).

More strategic for future sustainable development, it is the emerging industrializing economies (e.g., the BRICS) which have strong dynamism to shape global development. But the pro-active energy policy should be stressed here. The state policies for renewable future in general, renewable energy targets in particular, continue to be a driving force in shaping markets for renewable energy, despite some setbacks resulting from a lack of long-term policy certainty and stability in many countries – at least 118 countries (more than half of which are developing countries) had renewable energy targets in place by early 2012 - up from 109 as of early 2010. (REN 21, 2012:14).

More problematic, there are more words than actions for governing global-and-local re-sourcing for renewable energy. Global energy system has not been considered as global governance issue, if compared with health, peacekeeping and environment -- pursuit of global energy governance has been almost a taboo in political and foreign policy circles (Karlsson-Vinkhuyzen, et al. 2012). Alternatively, there is urgency for such a transformation for strong and coherent governance at all political levels at global-and-local scales; but Rio+20 could have provided a roadmap for achieving a sustainable energy future requires a revolution in the energy system (Halle et al. 2013).

6.3 Questioning Global Summits' Success (or Fatigue) for Ecological Modernization

In spite of many United Nations' conferences so far in 21st Century: up to late 2012, global initiatives for sustainable development have not been strategic nor demonstratively policy -enforceable, especially in nurturing global green house gases emission limits after the Kyoto Protocol, enhancing Biodiversity and Sustainable Development. Historically, the UN Climate Change Summit in Copenhagen (COP15; 7-18.December 2009) disappointed not just environmentalists and political leaders, but global society at large, by failing to produce a legally binding treaty on reducing greenhouse gas, carbon dioxide (CO_2). Seemingly, it is also a double-failure of the United Nations' initiatives on Climate Change for both the Bali Conference on Climate Change (3-14.December 2007) and the COP15 (http://unfccc.int/2860.php and http://unfccc.int/meetings/cop_15/items/5257.php,). More specific, the post-Copenhagen preparative meetings for United Nations Framework Convention on Climate Change (UNFCCC) have been repeatedly toning down for a "flexible" and "comprising" approach for achieving something just for non-legally biding agreement for

Cancun (Mexico) Climate Change Summit (COP16), 29.November to 10.December 2010 – while the next hope will be another round of talks for Climate Change Summit in South Africa 2011 (Lai 2011a). But the real question is how to contain the +2 degree Celsius without concrete target and binding agreement; or just another round of talk?

Similarly, the "soft-targeting" biodiversity development without strong sanctioning–incentive mechanism is the key policy achievement (?) for the CBD (COP10) in Nagoya October 2010. Yet, the CBD is a compromised form for the contradictions between economic developmentalism and biodiversity: though it argues that functional aspects of bio-localism need to be strengthened but the question of how to pursue for biodiversity (the nation states' commitment in terms of policy and concrete targets) for sustainable development is still open.

Perhaps more and more global summits (2010 Nagoya Convention on Biodiversity and Rio+20 in 2012, and more until another apocalyptic disaster?) are needed prior to the consensus building and formation of the global will for the (dying?) human species and for ecological urban-modernization – But we are running out of time!

Climate change is especially intertwining with a global-regional-local energy crisis, with the excess use of, and dependency on, the carbon emission fossil fuels but is exacerbated by the under-investment and development for renewable energy (UNEP & WTO 2009). The inertia against "the global solution for global problem" is ironically demonstrated also by well participation of the emerging economies, like the BRICs and the once reluctant participant for global governance for climate change, U.S.A. Here, the role of BRICs is particularly critical in shaping global warming that since 2007, the BRICs countries, representing one-fourth of the world GDP, have contributed to over 30% of global energy use and 33% of CO_2 emissions from fuel combustion (IEA 2009a/b; Olivier & Peters 2010). At the very least, they are the growth engines, requiring more energy, emitting more greenhouse gas, for (or destroying?) global development in the last decade and for the coming ones as well.

The timely crucial issue is how societies around the world manage hyper-urban-modernization with clean and renewable energy re-sourcing, with less carbon footprints or neutrality, during climate change crisis – some form of smart city with sustainable

energy re-sourcing locally is urgently required. In other words, the paradigmatic shift requires more than technological change *per se*; normative-ethical questions and choices to foster the shift towards ecological modernity are deemed urgent necessary.

Obviously, problems of and solutions for climate change and sustainability are more than politics and technologies *per se*; the contradictions and mitigating strategies are socio-political therefore need "politicking". But we should be reminded that too much of the concept of 'sustainable politics' castrates sustainability politics. It ignores the fact that sustainability politics is precisely not about climate but about transforming the basic concepts and institutions of first, industrial, nation-state modernity. Here, the calling is for a transformation of our life world (Beck 2010: 256). Hence, the new worldview for sustainable development should be a fundamental shift of developmental course for the greening of economy and society -- reflexive ecological modernization for global-cum-local sustainability.

6.4 Bringing People Back to Sustainable Lifestyle(s) – LOHAS in Action!

Global population growth dynamics will have strong implication for sustainable development. Regional ageing for the developed economies and hyper-urbanization for the developing, emerging economies should be noted here. More than two-thirds of the global population will be living in cities by 2050. The rapid rate of urban growth has created enormous challenges.Historically, cities create not just opportunities-driven hope but also concentrate health hazards and risks. Good urban governance is a must for coping urbanization crises, say the least is the swelling number of slum-dwellers (more than 800 million people in 2012), mostly in developing economies (WHO 2012). Obviously, there is urgent need to taking up slum improvement for better health with universal access to access to clean water, food, energy and basic utilities.

Eco-friendly policy and practice therefore should be promoted; bring back those socio-economic practices for sustainable development, with reference to good culture, ethics, traditions and wisdoms for preserving human resilience and ecological vitalities.

Modern lifestyle(s), represented in terms of production, consumption and exchange, has been charting the course of (un)sustainable development;

over production-consumption and wastage of energy are part of the problem. Historically, nuclear energy was once (for a few decades) considered as safe, reliable and sustainable energy source; but the 2011.3.11 Fukushima disasters (earthquake, tsunami and nuclear power plant "accidents") redefine what is (not) sustainable (re-)sourcing of energy and human destiny, in the repeatedly apocalyptic terms after Three Miles Island (1978) and Chernobyl (1986)…

"Enough is enough" for the unmanageable risks of nuclear power (Macer, et al. 2012) therefore Germany planned to decommission all nuclear power plants by 2022 and Japan, likely by 2040. Correspondingly there is a new call for, or the rejuvenation of, the less-energy -cum- carbon neutral lifestyle, represented by the LOHAS (lifestyle of health and sustainability) movement. At the global level, international agencies' initiatives under the framework of the United Nations and European Union are becoming important, as a last resort! Hence, the greening of market may attribute to individuals' commitment to *Save the World* - with the motto of *Think Globally and Act Locally*, for individual's health and quality of life for LOHAS. Under a new global green mainstreaming, the quest for sustainable development has shaped the market conditions significantly (Emerich 2011, Lai 2011b).

To recapitulate, there are obviously many questions to be raised for pursuing sustainable course of actions along the ecological modernization frontiers; but prompt actions are critical and imminent, not least those can effectively facilitate the greening economy and socio- equitable fair development, and fostering the unique yet differential (ecological reflexive) modernization processes - for another socio-economic ecological miracle(?).

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