

# UN HABITAT

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# *HS-Net*

Proceedings

of

the Sixth Advisory Board Meeting

of

the Global Research Network on Human Settlements  
(HS-Net)

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Policy Analysis Branch  
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UN-HABITAT

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## I. Introduction

### I.A. Background to the meeting

1. The Global Report on Human Settlements is one of UN-HABITAT's main vehicles for reporting on and dissemination of the results of its monitoring and research activities. The research on substantive issues and policies required for the Global Reports is based partly on partnerships with research institutions all over the world.

2. The Global Research Network on Human Settlements (HS-Net) was set up in November 2004 to provide a global mechanism for channelling expert advice to UN-HABITAT on the substantive content of its biennial Global Reports on Human Settlements, and more generally, to increase global collaboration and exchange of information on human settlements conditions and trends and on progress in the implementation of the Habitat Agenda and relevant United Nations Millennium Development Goals. The composition of HS-Net's Advisory Board contributes to ensuring adequate regional coverage in the global review of human settlements conditions and trends. It enables UN-HABITAT to continually communicate with researchers and institutions engaged in cutting-edge human settlements research and access the results of past and on-going human settlements research all over the world, as inputs to the Global Report.

3. HS-Net is open to individual researchers, research institutions and networks engaged in human settlements research. The key organizational organs of HS-Net are the Secretariat and the Advisory Board. The Secretariat, based at the Policy Analysis, Synthesis and Dialogue Branch of UN-HABITAT manages HS-Net on a day-to-day basis. The Advisory Board consists of multidisciplinary researchers in the human settlements field, representing the various geographical regions of the world. The key role of the Advisory Board is to advise UN-HABITAT on the substantive content of the Global Reports and on the various activities of HS-Net. The Advisory Board held its inaugural meeting in Nairobi, Kenya in November 2004 and subsequent meetings in New Delhi, India (September 2005), Vancouver, Canada (June 2006), Monterrey, Mexico (October 2008) and Newcastle, UK (September 2008).

### I.B. Objectives of the meeting

4. The Sixth Advisory Board meeting had three key objectives:
- a. Review of the first draft chapters of the Global Report on Human Settlements 2011 – Cities and Climate Change (GRHS 2011);
  - b. Review of the first draft outline of the Global Report on Human Settlements 2013 – Sustainable Urban Transport (GRHS 2013); and
  - c. Review of core HS-Net activities.

### I.C. Participants

5. The meeting was attended by:
- a. Members of the HS-Net Advisory Board;
  - b. Members of the HS-Net Secretariat;

- c. Authors of the chapters of the GRHS 2011;
- d. Author of the issues paper and draft outline of the GRHS 2013;
- e. Invited Gender and Climate Change Experts;
- f. Members of the Gender Mainstreaming Unit, UN-HABITAT; and
- g. Members of the Urban Environmental Planning Branch, UN-HABITAT.

## I.D. Opening of the meeting

6. Professor Louis Albrechts of the Catholic University of Leuven, and HS-Net Advisory Board Member opened the meeting by welcoming all participants. He noted that HS-Net is an invaluable learning network, which brings together diverse experience in the area of human settlements. Members of the Advisory Board willingly offer their services and time free of charge. He expressed his appreciation to the Policy Analysis Branch of UN-HABITAT for the support offered to the Advisory Board.

7. Dr. Naison Mutizwa-Mangiza, Chief of the Policy Analysis Branch welcomed new members of the HS-Net Advisory Board and the gender experts attending the meeting for the first time; emphasizing the need to integrate gender dimensions into the GRHS 2011. He also welcomed Professor Harry Dimitriou, the consultant preparing the Issues Paper for the GRHS 2013, as well as colleagues from the Urban Environment and Planning Branch of UN-HABITAT who were also attending the meeting for the first time. He also conveyed the appreciation of the Executive Director of UN-HABITAT to the HS-Net Advisory Board for its excellent role and contribution to the GRHS over the years.

8. Dr. Mutizwa-Mangiza noted that the main purpose of the 6th HS-Net Advisory Board was to review the first drafts chapters of the GRHS 2011 and discuss the outline of the GRHS 2013. After the meeting a the HS-Net Secretariat will prepare a report of the proceedings, which would form the basis for the second drafts of the GRHS 2011, as well as initial work of the GRHS 2013.

9. Dr. Mutizwa-Mangiza informed participants that the publication date of the GRHS 2011 was being brought forward to coincide with the Governing Council Meeting of UN-HABITAT. The report will be published in March 2011 and launched in April 2011. He thanked members of the board that launched the GRHS 2009 in their various cities.

10. Given the impending arrival of several HS-Net Board Members later in the day, Dr. Mutizwa-Mangiza proposed a slight amendment to the programme, whereby the election of the Chair and Vice Chair, which was slated for the morning session of the first day be postponed to the last day of the meeting. This necessitated bring forward the presentations by Dr. Patricia Romero-Lankao. The change to programme was accepted.

11. The opening session was concluded by the introduction of the participants.

### I.D.1. Purpose and expected outcomes of meeting

12. The overall purpose of the meeting was to review the first draft chapters of the GRHS 2011 and the draft outline of the GRHS 2013.

13. Meeting participants were expected to identify key gaps and omissions in the draft chapters of the GRHS 2011 and the outline of the GRHS 2013 and provide concrete indications on how these could be addressed.

14. Detailed proceedings of the meeting would be shared with participants after the meeting.

15. Consolidated comments would be prepared for the revision of the chapters of the GRHS 2011 as well as the GRHS 2013 outline based on the proceedings of the meeting as well as all other comments received from within UN-HABITAT and other external experts.

16. In addition, progress with HS-Net activities for the period since the last Board meeting (September 2008-October 2009) would be reviewed.

### I.D.2. Adoption of the Agenda

17. The programme for the meeting (Annex II) was revised as follows:

- a. The election of an HS-Net Chair and Vice-chair would take place during the session on 'HS-Net activities' on the afternoon of 21 October 2009.
- b. The presentations on the chapters of the GRHS 2011 on 19 October 2009 would all be moved up one slot up.

### I.E. Election of officers

18. During the opening session of the 6th Advisory Board meeting it had been agreed to postpone the election of Chair and Vice-Chair to the last day of the meeting to allow Board members to get to know each other before the election. The election was thus conducted in the afternoon of 21 October 2009. The members of the Board then voted for a Chair and Vice-Chair through secret ballot. Accordingly, Professor Louis Albrechts and Dr. Debra Roberts were elected as Chair and Vice-Chair respectively.

### I.F. Closing of meeting

19. Dr. Naison Mutizwa-Mangiza explained the forthcoming activities related to the GRHS 2011 as well as the time frame for the completion of the report. UN-HABITAT would draft the proceedings of the 6th HS-Net Advisory Board meeting and share these with participants for their perusal. Consolidated comments would also be prepared for the revision of the GRHS 2011 chapters drawing on the proceedings of the meeting as well as all other comments received from within and beyond UN-HABITAT. He asked all participants to send additional comments or information on the GRHS 2011 or GRHS 2013 to the Policy Analysis Branch and not directly to the reports' consultants. Finally, he informed participants that the report would be launched during the 23rd session of UN-HABITAT's Governing Council in April 2011.

20. In closing, Dr. Naison Mutizwa-Mangiza and Professor Louis Albrechts, the newly elected Chair of the HS-Net Advisory Board, both thanked participants for their attendance and excellent contributions throughout the meeting.

## II. Summary of discussions

21. The discussions summarized below were conducted during the three days of the meeting. The items contained in subchapters II.A.1, II.A.3 and II.A.3 were concluded on day 1, those in subchapters II.A.4, II.A.6, II.A.7 and II.A.7 on day 2 and those in II.A.8, II.A.10 and II.A.10 on day 3.
22. During sessions of the meeting on the GRHS 2011, authors presented an overview of the chapters, HS-Net Board members that reviewed the chapters in detail provided their feedback and invited experts presented their comments. This was followed by an open discussion involving all meeting participants.
23. During the session on the Gender, Cities and Climate Change background paper, Ms. Gotelind Alber outlined the linkages between gender and climate change and how these should be reflected in the GRHS 2011. Subsequently, participants engaged in an open dialogue on this issue.
24. During the session on the GRHS 2013, Professor Harry Dimitriou presented an overview of the draft outline. This was followed by inputs from all participants of the meeting.
25. The session discussing HS-Net activities was attended by Board members only.
26. The summary of the discussions below has been organized around specific issues rather than individual contributions during the various sessions.

### II.A. Global Report on Human Settlements 2011 — Cities and Climate Change

27. In August 2009, the first draft chapters of the GRHS 2011 were submitted to UN-HABITAT and subsequently shared with Board members and other experts for review. A group of Board members (3-5) was appointed to review each draft chapter in detail and to submit a more comprehensive set of comments in writing to UN-HABITAT prior to the meeting. Some invited experts also provided written comments before the meeting. These written comments will be reviewed and incorporated into the consolidated comments to be sent to each of the chapter authors as appropriate.

#### II.A.1. Chapter 1 (Urbanization and the Challenge of Climate Change)

##### II.A.1.a. Introduction

28. Dr. Patricia Romero-Lankao presented Chapter 1 of the GRHS 2011. She noted that the revised version of the chapter will revisit the Issues Paper prepared for the GRHS 2011, given that the latter covers many pertinent issues that need to be included in the former. The revised version of the chapter is expected to address the following: relate urbanization more closely to climate change; identify and provide an overview of the climate change threats that have major implications for urban areas, as well as the nature of the inverse relationship between the responsibility for climate change and its impacts; de-emphasize the findings/discussion of the Inter-governmental Panel on Climate Change (IPCC); structure the outline of the chapter to follow initial outline sent to the consultant; indicate clearly why urban areas need to care about climate change; and take cognizance of the fragmented nature of the innovations relating to cities and climate change. The consultant also noted that the revised draft will give adequate attention to the rationale for the report. In concluding the consultant provided an outline of the revised draft of the chapter.

### II.A.1.b. Discussion

29. The discussion was led by Mr. A. K Jain, Professors Aloysius Mosha and Peter Droege (via video link) and Dr. Deike Peters. The discussion was subsequently thrown open to the floor.

30. In agreement with the author, several discussants felt that Chapter 1 represented work in progress, which would be revised continuously, and in line with the other chapters. This is particularly the case, given that the report would be published in March 2011. Chapter 1, as well as other chapters will need to capture and keep abreast of new developments and ideas relating to cities and climate change that would have emerged between the time the final drafts of the chapters have been submitted in March 2010, and when the report is published one year later. These are major issues that the UN-HABITAT team would have to take into consideration.

31. The discussion noted that the chapter is comprehensive and grounded in the science of climate change. However, the chapter needs to relate strongly with the urban process. Clearer or more definitive statements are needed on the nature of the linkages between urbanization and GHG emissions. It might therefore be necessary to provide figures on GHG emissions. In addition, the chapter should show continuity and linkages with the other chapter.

32. In linking climate change to urbanization, the chapter needs to strongly emphasize the fact that rapidly urbanizing areas, which mainly includes small and medium size cities are least able to respond and cope with the challenges of climate change. In addition, climate change will affect cities of different sizes differently.

33. In revising the chapter, it also needs to be emphasized that climate change will compound or magnify the existing challenges associated with the rapid pace of urbanization especially in developing countries. Urbanization in developing countries is associated with increasing levels of poverty, proliferation of slums, inadequate provision of housing, urban infrastructure and services, widening inequalities, and increasingly levels of crime and violence. All these challenges are likely to be exacerbated by the impacts of climate change. This is a key point that ought to be made in the introductory chapter.

34. The issue of spatial scale was also raised. In particular, the spatial scales need to be well articulated, given that the variations in carbon emissions are remarkably different at say: the household/work place; community; metropolitan area; region; and continental or global levels. In other words, what is the spatial scale for addressing the issue of climate change within and across cities? It was suggested that the range of the scale should be from the small to the mega, given that issues of GHG emissions and thus climate change transcend the urban area. Nonetheless, due attention should be given to the lowest scale given that effects of climate change are felt at the local level.

35. It was felt that climate change associated with human activities and nature were not given adequate attention in the chapter. More discussion on these will be required in the revised draft.

36. Certain terms such as cities, urban areas, local governments need to be defined. At times they are used interchangeably, but may not always mean the same thing in certain contexts.

37. The pervasive dependence of cities on fossil fuels is an important issue that has been at the forefront of any argument or debate on cities and climate change. Besides, fossil fuels have been at the dynamics of urban growth over the last 50 years. The emphasis should therefore be on energy shifts with focus on the sources of emissions rather than on emissions, given the fossil fuels are the major contributors/sources of GHG emissions. With declining petroleum and production capacity, urban growth being so dependent on fossil fuels in industrial and developing countries cannot be sustained.

38. The chapter should not uncritically rely on IPCC political pronouncements. For instance, the statement that stabilization of heat trapping gas concentrations in the atmosphere at about 445

to 490 parts per million by volume of CO<sub>2</sub>-equivalent will ensure that equilibrium global average temperature increases within 2 to 2.4 degrees Celsius (°C), above pre-industrial levels needs to be made with some caution. Even the IPCC offers a caveat on this.

39. More attention needs to be given to issues pertaining to cities and climate change in developing countries particularly in Africa and Asia, where cities are highly vulnerable to climate change and for which information is generally lacking in the chapter. Indeed, it was observed that climate change is affecting African cities disproportionately, and yet these are hardly reported. Furthermore, the chapter needs to make more or stronger linkages between climate change and other crosscutting policy issues such as poverty, food security, population growth and gender etc., including the economic and financial crisis of which no mention was made.

40. Chapter 1 needs to reflect the local reality on the ground. In developing countries for instance, many local government officials do not believe in climate change. Indeed, local politicians believe that climate change is a western conspiracy. Similarly, many individuals do not understand the reality of climate change. Closely related to the preceding, is the lack of climate change assessments and the lack of awareness of the real and potential impacts of climate change. These are some of the problems that hamper programmes and policies on climate change in cities of developing countries. It might therefore be useful to view the report as one on development through the lens of climate change.

41. The introduction should discuss or at least mention the issue of environmental justice. This could be linked to the discussion on the inverse relationship between the responsibility for climate change and its effects. This relationship in turn can be discussed at both the macro (global or regional) and micro levels (urban or local).

42. The issue of gender has to be given more prominence in the chapter than is currently the case. For instance, it was noted that all climate change vulnerabilities are gender-related. Furthermore, women can be seen as agents of change as it relates mitigation and adaptation to climate changes. These issues should clearly be reflected in the chapter.

43. For an introductory chapter, the tables contain too much information. The tables could be reduced, with the emphasis of the chapter being on the issues and challenges associated with the topic at hand. The purpose of this chapter should therefore be to provide the foundation and offer an overview of the entire report. The introductory chapter will briefly describe the problem addressed by the report—a need for a clearer understanding of the interactions and dynamics between urban areas and climate change, including global trends and policy responses at the city, national and international levels.

44. An issue that should be mentioned in the rationale for the report is that the GRHS 2011 will seek to increase our knowledge on climate change especially as it relates to cities or urban areas in different parts of the world. The GRHS 2011 will be unique in this respect, given the sectoral focus of other global reports of this nature.

45. A major issue that arose relates to the audience of the report. Chapter 1 in particular and the entire report in general need to think of the intended audience. It was noted that the audience of the report includes UN-HABITAT partners — NGOs, private sector, central and local government officials, researchers as well as contributors to human settlements issues. The introductory chapter (and entire report) should therefore be written a manner that engages the attention of the reader, while providing insights for the other chapters.

46. Chapter 1 needs to be positioned in such a way it clearly conveys what UN-HABITAT is bringing to the climate change discussion/debate that is remarkably different from other global reports on climate change. In other words, the uniqueness of this report should be emphasized. The chapter also needs to deal with the pressing questions relating to cities and climate change. What are the issues or gaps that this report needs to deal with that have not been dealt with by



other reports. In conveying the UN-HABITAT message, it was noted the 23rd session of the Governing Council of UN-HABITAT passed a resolution on cities and climate change. Mention of this will be made in Chapter 1 of report.

## II.A.2. Chapter 2 (Framework for Addressing the Interactions between Urban Areas and Climate Change)

### II.A.2.a. Introduction

47. Professor Patricia Romero-Lankao, one of the authors of the chapter, presented the framework for cities and climate change and elaborated its various elements. She indicated that the framework drew mainly on the 2001 report of the IPCC. She reviewed the various responses of cities to climate change as well as the underlying drivers of these responses. She also outlined the challenges shaping cities' levels and capacities to respond to climate change.

### II.A.2.b. Discussion

48. The discussion was led by presentations from members of the HS-Net Advisory Board that had reviewed the chapter in detail, namely Dr. Belinda Yuen, Professor Elliot Sclar, Professor Mee Kam Ng, Dr. Graham Tipple and Dr. Ivan Tosics. Subsequently, a gender expert, Ms. Prabha Khosla, provided inputs based on her detailed review of the chapter. This was followed by an open discussion amongst all other participants.

49. Participants noted that the chapter contained pertinent information and praised the efforts of the authors but indicated that a lot more work was required.

50. Participants requested for further clarification of whether the GRHS 2011 focuses on cities, urban areas or human settlements in general. One participant noted that the concept of 'urban areas' would be more relevant for the report as opposed to the notion of 'cities' especially in light of the processes of peri-urbanization and urban decline.

51. The need for a clearer and more reader-friendly style of writing which avoids overly technical and academic language was noted.

52. Participants felt there was considerable overlap between chapters 1 and 2 and called for a clearer demarcation of the aims and content of each. While some participants suggested the relocation of some sections between the two chapters, a few others felt the chapters should be merged.

53. It was further noted that a number of the sections in the chapter 2 would fit better in other parts of the report while some sections contained information which was tangential to the stated aims of the chapter (e.g. extended discussion of 'stakeholders'). For instance, several participants felt the definition of key terminology should not be placed in chapter 2 given its relevance to the whole report.

54. Participants made a number of comments on the integrated framework on urban centers and climate change as follows:

- a. A clear rationale for the use of the framework should be provided.
- b. The framework should provide a rationale for the structure of the whole report and therefore be more directly linked to the contents of the other chapters of the report.
- c. The framework should also reflect climate change 'actors' and 'actions' which are elaborated in other chapters of the report.

- d. A simpler, more generic framework will be more appropriate for the average reader. Instead of an attempt to be comprehensive, a selective and strategic focus is required in the framework.
- e. The analysis of the interactions between cities and climate change in the framework should stem from an 'urban' rather than a 'climate change' perspective. The urban relevant dimensions of each element of the framework should thus be made clear.
- f. A clear focus on urban sectors (construction, land-use, transport, industry, etc.) and their interactions with climate change is also required in the framework. Indeed, one participant noted that a sectoral approach has been found to be more effective in driving action on climate change issues at the local government level as compared to an integrated approach. Notions of urban lifestyle, production and consumption can also be included in the framework as anchors for the analysis of climate change from an 'urban angle'.
- g. A sectoral approach would enable local governments to directly relate their work to the framework. At present, the framework is not immediately relevant for city and local governments.
- h. In analyzing the linkages between climate change and urban development, the framework gives a false impression that these are self-contained processes.
- i. The concepts of adaptation and mitigation are closely linked and cannot be seen independently in the framework.
- j. Environmental justice concerns within the framework should be included in the framework.

55. Similar to the framework, it was indicated that the report as a whole should adopt an 'urban angle' in its analysis of climate change rather than focusing on the work of the climate change community (e.g. the IPCC).

56. It was indicated that markets and the production cycle are fundamental to the review of the interactions between urban areas and climate change. It was noted that the market is absent from the first draft of the chapter. Furthermore, the construction industry was highlighted as one of the main contributors to GHG emissions thus requiring attention in the analysis of the interactions between urban areas and climate change.

57. With regards to the conceptualization of urban areas and how they interact with climate change, the following remarks were made:

- a. The analysis in the chapter should reflect the heterogeneity between and within urban areas more clearly. The discussion of the implications of urban structures and form for climate change for instance need to be relevant to developing, developed and transitional countries. Suburbs are the main focus in the chapter but these are not relevant in the context of developing countries.
- b. Also, the chapter should consider the role of mega-cities whose development and related challenges are different to those of smaller urban settlements.
- c. The density gradient of cities was also proposed as an additional concept to understand the linkages between patterns of urban development and the scope for climate change mitigation and adaptation.

58. The chapter needs to consider the gendered nature of the interactions between cities and climate change in greater detail. The differences in men and women's experience of city life, use of resources, climate change resilience and coping strategies and decision making opportunities were underscored. The discussion of the urban poor in particular should be gender disaggregated given the particular vulnerability of poor women and children.

59. Several observations were made with regards to the review of climate change instruments and actors as follows:

- a. There is a need for a more detailed discussion of the role and importance of each of the three main international instruments of climate change (Kyoto Protocol, IPCC and Global Environmental Facility).
- b. A wider discussion of the importance of various actors in climate change mitigation and adaptation is essential.
- c. The mandate, benefits and shortcomings of international, regional and national instruments for climate change action should be reviewed more systematically and in greater detail.
- d. The terminology and facts used in the analysis of the international framework for climate change action should be checked for accuracy and consistency.
- e. Furthermore, the review of instruments for adaptation should be expanded.
- f. The unique role of cities in implementing climate change targets and agreements should especially be emphasized. The voluntary climate change action of cities even in the absence of national legislation (e.g. US) was highlighted as an illustration of this.
- g. In addition, the role of regional and international city networks as frameworks for action should be reviewed in greater detail. To this end, it was proposed that Box 5 (Cities' response to climate change) be developed as part of the main body of the chapter.
- h. The analysis of climate change actors should include individuals as key actors especially in relation to production and consumption. Local communities should also be seen as agents of change and knowledge within the climate change arena.
- i. In particular the need to engage women, the poor and other marginalized groups as key actors in climate change decision-making processes should be underscored. This is especially so since local governance and decentralization processes have yet to engage these groups as equal partners. In reviewing climate change governance, there should be an explicit recognition of gender differences in decision making at various levels from local to international.
- j. Given the complexity and global nature of climate change challenges, a strategic focus is required to identify leverage points for action and define the role of actors.

60. The urgency of the climate change agenda is evident, said one participant, as it is inevitably moving urban systems towards a critical state. However, another participant noted that climate change is not a priority for many politicians and their actions may also be contradictory across different sectors. Therefore, the incentives for climate change action, especially at the local level, must be emphasized in the chapter. A focus on 'global benefits' is unlikely to trigger a sense of responsibility and action at the local government level. In this regard, adaptation may be more appealing as it generates greater local benefits compared to mitigation. Furthermore, the short and long term benefits of climate change action should be clarified.

61. One participant noted that questions of power and politics are not captured well in the chapter, or for that matter, the entire report.

62. The chapter should consider the implications of different governance capacities, ranging from strong to weak, for climate change mitigation and adaptation.

63. It was noted that the chapter should avoid portraying economic growth as a solution without qualification as in fact it contributes to the climate change challenge at hand.

64. In response to the above observations, the author of the chapter, Professor Romero-Lankao noted the following:

- a. Given the paucity of information on the interactions between cities and climate change, participants should share any additional knowledge and information that may aid the orientation of the framework towards an ‘urban perspective’.
- b. The framework needs to reflect ecosystem goods and services as these form key elements of urban development and shape mitigation and adaptation capacities.
- c. While it is important to focus on local benefits, there is a demand for information on the risks and negative implications of climate change.
- d. It is important to agree on the key questions and messages of the report in order for the report to respond to or prioritise the different professions and perspectives. Time should be devoted to such a discussion during the meeting.

65. Ms. Cecilia Njenga of UN-HABITAT’s Urban Environmental Planning Branch noted that the review of the linkages between urban areas and climate change can benefit from smaller anecdotal experiments and assessments including for instance the pilot activities of UN-HABITAT’s Cities and Climate Change Initiative (CCCI) in developing country cities.

66. Dr. Naison Mutizwa-Mangiza of the HS-Net Secretariat clarified that the linkages between mitigation and adaptation were elaborated in chapter 7 but they could possibly be relocated to an earlier point in the report.

### II.A.3. Chapter 3 (The Contribution of Urban Areas to Climate Change)

#### II.A.3.a. Introduction

67. Dr. David Dodman presented the draft of Chapter 3, which sought to pull together diverse information from different parts of the world on the contribution urban areas to climate change in seven parts as follows: an introduction, which outlines why the chapter has been structured the way it is; measuring GHG emissions; sources of GHG emissions; scale of urban emissions; factors influencing GHG emissions; the underlying drivers of emissions; and the conclusion. In making the presentation, Dr. Dodman highlighted the difficulty of attributing GHG emissions to a given place or individual.

#### II.A.3.b. Discussion

68. The discussion that followed was initiated by Drs. Belinda Yuen, Mee Kam Ng, Deike Peters, Professor Alfonso Iracheta — all HS-Net Advisory Board Members, and Ms. Titilope Ngozi Akosa. Afterwards, the discussion was opened to the floor.

69. The chapter was found to be very well and authoritatively written. The sequence of the sections is logical, and the content exceptional with high quality data, which makes the chapter very informative. In addition, the language of the chapter makes it easily accessible to a wide audience.

70. In revising the chapter, the author needs to show why this chapter is necessary. In other words, why should the target audience read this chapter? The chapter is relevant for several reasons, and these should be reflected in the revised draft.

71. The chapter should make or have stronger linkages to Chapters 2 and 4. Such linkages are currently missing, thereby making the chapter to stand in isolation.

72. The point was made that rather than first going into the long discussion and argument on the contribution of urban areas (which in itself is very useful and informative), would it not be

possible to state upfront (beyond the descriptive text) how much cities contribute to GHG emissions, and hence climate change.

73. It was felt that the production-consumption discussion needs to be brought forward. By placing it in p.50 (which was thought to be somewhat too late), the chapter misses the opportunity to make some important punch-lines on the topic.

74. The point was made that production-consumption discussion gave too much weight to consumption as an underlying driver of GHG emissions. More discussion is required on the role of production given role of producers and multinational corporations in contributing to GHG emissions.

75. Given the underlying importance of consumption and production, it was noted that deeper analyses of both are required. For instance, in the case of consumption, the issues of the incomes and consumption patterns of different social groups deserve deeper and self-contained analysis.

76. The paper does a good job discussing the role of road and air transport as major sources of CO<sub>2</sub> emissions, but hardly makes any mention of maritime transport, which in itself could significantly contribute to emissions.

77. There is a complete absence of the use of illustrative boxes from the case studies commissioned for this chapter, as well as other sources. Some of the relevant examples used the chapter could be placed in boxes; this will help the main content or text flow more smoothly.

78. There are several tables and figures are referred to as 3.X. The tables and figures need to be numbered properly and referenced. Some figures in this chapter are repeated in Chapters 1 and 4 . In addition, more analysis, preferably of a comparative nature is required of the data presented in some of the tables, as well as of the different protocols measuring GHG emissions.

79. Further data on the carbon emissions from cities could be obtained from the 2008 World Energy Outlook, which uses a hybrid approach.

80. More discussion is required on the urban emissions protocols. In particular, more could be said about which of these work well and how they could be integrated.

81. The discussion on transport (pp.17-21) should pay more attention to the relationship between car transport and community health. Specific cities/communities could be used to illustrate this relationship.

82. The discussion on bus rapid transit needs to make reference to the recent adoption in African and Asian context. Closely related to the foregoing, is the need to give more attention to developing countries, particularly Africa.

83. The discussion of the various sources of greenhouse emissions does not include land use change. It was felt that attention should be given to the impacts of the destruction of natural vegetation and the formation of urban land on climate change, as this poses a major problem in growing places such as China.

84. The extent to which the factors influencing emissions are exhaustive was raised. Specifically, it was noted that political factors such the type of leadership and the vested interest of industries play a key role in influencing emissions. This and other factors such as the policy environment should be included in the revised draft.

85. Urban density and urban forms are crucial factors influencing emissions at the city/local level. However, the discussion on these needs to be well-fleshed out in the chapter. In the revised version, the discussion of urban density should note that density creates new stresses on the urban environment. These include added stress on heat islands, water systems, transport systems refuse collection systems etc.

86. The discussion of the urban economy is very short in relation to other factors. The sole example of South Africa is inadequate. The scope and discussion of this section needs to be

broadened. It would be useful to compare and contrast the emissions of various types of urban economic activities.

87. The last sentence on p.54 concerning Beijing, Shanghai and Tokyo does not correspond with Figure 3.X on p.55.

88. The chapter contains little or nothing on the gender dimensions of climate change. Several avenues exist for incorporating these into the revised draft. For instance, the chapter makes the statement that it is the individual rather than the city that emits GHGs. In this case, differences in GHG emissions between men and women can be examined to see who is emitting what. The transport sector offers useful insights in this regard. Indeed, it was noted that the consumption-based approach is useful from a gender perspective. It should however be noted that disaggregated data on emissions by gender hardly exist. Efforts would however be made to examine and incorporate such data where available e.g. in the case of Sweden.

## II.A.4. Chapter 4 (The Impacts of Climate Change on Urban Areas)

### II.A.4.a. Introduction

89. Professor Matthias Ruth and Ms. Rebecca Gasper, the authors of the chapter, outlined the focus of the chapter and its contents. They underscored the irreversible warming of global temperatures and the wide ranging impacts of this on cities, albeit distributional in nature. At the same time, they noted, cities offer significant opportunities for climate change resilience.

### II.A.4.b. Discussion

90. The discussion was opened by presentations from HS-Net Advisory Board members that had reviewed the chapter in detail namely Professor Elliot Sclar, Professor Babatunde Agbola, Dr. Debra Roberts and Professor Louis Albrechts. A presentation by a gender expert, Professor Margaret Alston, followed. The floor was then opened for inputs from all participants.

91. The chapter was commended by participants for being well written, clearly structured and rich in information.

92. It was noted that the chapter appears focused on human settlements in general and not on cities per se, further reinforced by the selection of illustrative examples.

93. Participants made a number of remarks with regards to the discussion of climate change impacts in the chapter including the following:

- a. The organization and presentation of information in sections 2 (Climate Change Risks Facing Urban Areas) and 3 (Direct and Indirect impacts of Climate Risks on Urban Areas) should be reconsidered as they currently read like catalogues.
- b. The outline of impacts should go beyond mere description and consider the implications of these impacts for urban sustainability.
- c. There is need for a clearer definition and analysis of various concepts such as disaster risk, climate risk, climate variability and climate change.
- d. The attribution of climate change impacts needs to be re-examined as some urban challenges are not entirely attributable to climate change but to a broader range of factors. For instance, water scarcity and flooding in Mexico City is a result of the way water has been used for many centuries rather than the effects of climate change per se.
- e. Further analysis of the proportion of urban coastal settlements exposed to climate change is required. The existing evidence indicates that low elevation coastal zones (LECZ) covers 2 percent of the world's land area but includes 13 percent of its urban population

(about 360 million people). In this connection, it is important to note that non-coastal urban areas are also at risk.

- f. The chapter lends greater attention to the physical and economic impacts of climate change and less to the social and political impacts. A 'social lens' should be used to examine climate change impacts. For instance, it was proposed that the impacts of climate change on social networks need to be examined. Also, the implications of climate change for urban governance should be more clearly spelled out.
- g. The difficulty of assessing the monetary impacts of climate change should be acknowledged especially in the context of developing countries where infrastructure is not insured and there is a paucity of information.
- h. The discussion of economic impacts should consider the implications of climate change for education. Climate change mitigation and adaptation necessitate revised educational curricula. Lack of access to relevant climate change information and skills should be considered as one of the underlying factors for vulnerability. The empowerment of girls through education in particular offers great potential for engagement with climate change issues at the household level. If empowered or allowed to participate, women can also be powerful actors of change.
- i. The discussion of impacts should also consider the potential increase in the frequency and intensity of fires and permafrost.
- j. Land-slides be accorded the same importance as floods in the analysis of impacts.
- k. The impacts of climate change on water resources and potential exclusion and conflict over access and control of the same should be considered in the chapter.
- l. In addition, the impacts of climate change on sewage and sanitation infrastructure need to be outlined.
- m. It was further suggested that the chapter consider the implications of climate change for mega-projects. The need to climate proof these and all other investments through climate impact assessments should be highlighted. For instance, Finland has decided that all development cooperation activities will be climate proof.
- n. Given the significance of HIV/AIDS, at least within the African context, more attention should be given to the health impacts and vulnerabilities related to increased heat stress and water shortages.
- o. The impacts on biodiversity and ecosystem goods and services need to be reviewed in greater details since these are critical for a city's sustainability and account for significant revenue.
- p. The analysis of disaster risk and impacts needs to examine smaller, less documented disasters which cause significant damage in the global south and will most likely increase in frequency with climate change.
- q. The section on displacement and forced migration should be expanded as this is one of the major impacts of climate change. The chapter needs to note that refugee policies of many countries do not recognize climate refugees as legitimate. However, regions facing population decline could benefit from climate induced migration so international cooperation may be required to respond to increased climate change migration.
- r. Further elaboration of the gendered impacts of climate change and especially the vulnerability of poor women is required. This includes the gendered impacts of climate change induced outmigration from communities and the loss and grief associated with disasters. The chapter should also note the overall paucity of gender disaggregated data on climate change impacts.

- s. The examination of the gendered impacts of climate change should also consider impacts on men. Existing studies have illustrated the vulnerability of men in the face of climate change and related disasters.
  - t. The chapter should consider the unintended consequences of climate change adaptation and mitigation policies and especially how these are gendered. It was underscored that there will be winners and losers in the sphere for climate change action.
  - u. The review of impacts should also consider the cultural dimensions of climate change impacts. The cultural significance of loss and destruction of ancestral land or monuments to climate change was noted. In addition, local customs and values have implications for climate change impacts and vulnerability.
  - v. The chapter could factually illustrate how climate change is expected to exacerbate existing global challenges.
  - w. A review of the benefits accruing from climate change for some regions and cities was also proposed.
94. In terms of the discussion of vulnerability in the chapter, the following observations were made:
- a. The chapter should provide a global analysis at the city-region level and how this is differentiated by city-region size, wealth, geographical location etc.
  - b. The review of vulnerability in the chapter should be significantly different from the discussion of vulnerability and risk in the GRHS 2007.
  - c. The role of the market and land-use planning trends exacerbating vulnerability to climate change should be examined, including real estate, informal development and coastal tourism.
  - d. The rationale for including the review of climate change impacts and vulnerability in the same chapter was questioned. The current sequencing of the review of 'impacts' and 'vulnerability' in the chapter was also queried.
95. Participants expressed the following views concerning the discussion of resilience:
- a. The discussion of climate change resilience (section 5) is sketchy and should include illustrations of good and bad practices. Furthermore, it should reflect the variation in resilience across cities.
  - b. The important role of local knowledge and empowerment for climate change resilience should be highlighted in the chapter. Capacities for climate change action at the local level need to be strengthened and power relations changed to enable inclusive decision-making.
  - c. The influence of political and social institutions in climate change response capacity is mentioned briefly towards the end of the chapter (4.1.6) but this deserves more attention.
96. Observations were also made with regards to the concluding remarks and recommendations of the chapter as follows:
- a. The final section of the chapter provides concluding remarks and not policy recommendations as it claims to do.
  - b. Some of the concluding remarks at the end of the chapter are premature and need to be reconsidered. For instance, water pricing is proposed as a strategy for more efficient use without saying how this needs to be differentiated by wealth groups.
  - c. An assessment of the pros and cons of proposed responses and approaches to climate change should be provided. For instance, the relevance of suggested approaches to the poor should be evaluated.



- d. The need for transformative and new practices should be emphasized in the chapter as more of the same will not enable effective action against climate change.
- e. Where protection from climate change is either too costly or infeasible, the option of abandoning settlements should be considered. For instance, large areas of East Anglia are likely to be abandoned in the UK because it is not protectable from North Sea flooding.
- f. The chapter proposes emphasizes technological and market solutions for climate change action without qualification.

97. It was indicated that the illustrative examples in the chapter should be more balanced between developed and developing countries and focus on cases that are representative of broader regional trends. Athens, Greece is not necessarily representative of the European experience whilst Cotonou, Benin may not reflect the experience of major coastal West African cities. Also, some well known examples such as the Netherlands experience in minimizing flood risk are not mentioned. Furthermore, participants indicated that some of facts and figures on city illustrations need to be checked for accuracy.

98. Further to the above, the chapter draws primarily on the Anglo-Saxon literature and leaves out the wealth of knowledge and information from the French, German, Spanish and Scandinavian works.

99. The need to emphasize the implications of climate change impacts for urban planners and local government was noted vis-à-vis the following specific remarks:

- a. Whilst a review of climate change impacts in cities is necessary, urban planners are more interested in knowing what actions can be taken to prevent or minimize these impacts. The last sections on resiliency, governance and planning were most interesting and relevant in this regard.
- b. The chapter should take note of the fact that urban administrative boundaries and multi-level governance pose challenges for urban planners to play a role in building climate change resilience.
- c. The critical role of local government in climate change mitigation and adaptation is not adequately recognised. For instance, local governments are often lumped together with others (farmers and traders) in climate change negotiations.
- d. Climate change action needs to be strategic and focused on priorities especially in light of the limited finances available for climate change action. Urban planning and management can draw on other fields and professions such as the military with regards to strategic and crisis management approaches.

100. Participants recommended that the chapter make reference to the following publications:

- a. McKinsey Swiss Re (2009) *Shaping Climate-Resilient Development: Framework for Decision-making*
- b. Asian Development Bank (2009) *The Economics of Climate Change in Southeast Asia: A Regional Review*
- c. BRDIGE (2009) *Gender and Climate Change: Mapping the Linkages*, Institute of Development Studies, University of Sussex
- d. World Bank (2001) *Hurricane Mitch—The Gender Effects of Coping and Crises*, World Bank
- e. Erik Swyngedouw (2004) *Social Power and the urbanization of Water*, Oxford University Press
- f. UN-HABITAT's CCCI city assessments and literature reviews

101. A call was made for UN-HABITAT to explore different means of communicating the report's findings and messages for various audiences including visual means.

102. Professor Matthias Ruth made the following remarks in response to the above observations:

- a. The final section of the chapter will clearly differentiate and outline conclusions and recommendations in the revised draft of the chapter.
- b. The social framework for analyzing climate change impacts can be made more prominent in future drafts of the chapter.
- c. Several of the observed gaps in chapter 4 are addressed in chapter 6.
- d. In view of the call for climate proofing investments, the report may seek to develop a climate change impact assessment tool as a key output.
- e. The risks of climate change outweigh any benefits by far so not of the view that the latter should be mentioned.
- f. It is important to consider cultural identity surrounding land-use when reviewing climate change impacts. For instance, this is a key issue of concern for American Indians.
- g. Attribution of impacts to climate change should indeed be clarified and qualified as climate change is a threat multiplier.
- h. The suggestion to carefully consider controlled retreat as opposed to continuous building is important. However, insurance can provide counter-intuitive incentives to continuously build in risk prone zones.

103. Dr. Mutizwa-Mangiza of the HS-Net Secretariat made the following remarks:

- a. The report focuses on cities but the notion of 'city' is defined broadly as a generic term referring to urban settlements of varying sizes. This is due to a shift in thinking in UN-HABITAT and the adoption of 'Sustainable Urbanization' as the main theme of the agency's 2008 Medium Term Strategic and Institutional Plan (MTSIP). All Global Reports therefore need to support this broader theme, starting with the GRHS 2009.
- b. The Policy Analysis Branch recognizes the shortcoming of the Global Report on Human Settlements in that it focuses on the Anglo-Saxon literature. Attempts have been to address this by drawing on work within UN-HABITAT as a whole and by initiating a graduate internship programme to recruit students with proficiency in one of the UN languages other than English.
- c. The suggestion to prepare different communication products for different target audiences including a video is welcome and will be explored.
- d. Furthermore, there is an ongoing dialogue within UN-HABITAT about developing training materials from the GRHS series.

104. Ms. Lucia Kiwala of the Gender Mainstreaming Unit of UN-HABITAT clarified that the paper commissioned on 'gender, cities and climate change' is intended to inform all chapters of the report.

## II.A.5. Chapter 5 (Climate Change Mitigation Responses in Urban Areas)

### II.A.5.a. Introduction

105. Dr. Vanesa Castán-Broto — speaking on behalf of herself and Professor Harriet Bulkeley, the co-author of Chapter 5, both of Durham University, UK — made a presentation focusing on the structure of the first draft of Chapter 5. She noted that the objective of the Chapter was to provide an overview of the policies and projects being developed in cities across the world to

mitigate climate change, including the role of public and private actors, drivers and barriers, effectiveness, and geographical variation and trends. She explained that the discussion of climate change mitigation in urban areas was organized with respect to five types of policy responses, namely: urban development and design, the built environment, urban infrastructure, transport and carbon sequestration.

106. She also noted that the discussion in the first draft of the Chapter had deliberately not focused on an elaborate discussion of vulnerabilities of various social groups, to avoid overlap with other chapters, but noted that she would welcome advice from the meeting on how to include a wider discussion of gender-related issues in the second draft of the Chapter. Furthermore, she noted that, in the second draft, the authors would include more material on Asia (and better integrate the presentation of data from all regions), improve the section on governance, and add more graphical material.

#### II.A.5.b. Discussion

107. The discussion that followed was initiated by brief presentations by four members of the HS-Net Advisory Board who had volunteered to provide detailed comments on the Chapter (Professor Pamela Robinson, Professor Peter Droege (via a recorded video message), Professor Ingemar Elander, and Professor Aloysius Moshia), and one presentation by a gender expert (Ms. Aira Marjatta Kelela). After that the floor was opened for comments from other participants.

108. Several participants noted that the Chapter was ‘spot on analytically’, and based on solid research, with a good coverage of the literature, and presenting the most recent data. The Chapter was, however, written through the lens of a scholar and planner. It was thus suggested that the language of the second draft be simplified to attract a wider readership. One participant noted that the Chapter was too focused on one particular school of thought and suggested that this should be addressed in the second draft.

109. Some concern was also raised about how the Chapter would be received by policy readers, in particular with regard to table 2 (on types of policy responses); would local officials appreciate being categorized as ‘reactive’ or ‘managerial’? However, a participant (and local government official) noted that the terms used were honest and should be seen as positive and as a basis for a reality check at the local level.

110. Some participants stated that they found the Chapter to be too long, although it only marginally exceeded the length indicated in the terms of reference for the Chapter. It was, however, noted that this could be easily addressed by removing some repetition between the various sections (and chapters).

111. One major issue that was raised during the discussions was the balance between climate change mitigation responses as an ‘add-on’ or as ‘mainstream’, i.e. are climate change responses ‘carbon-driven’ or driven by ‘co-benefits’? As noted in paragraph 14 below, local government officials in developing countries may have problems justifying mitigation initiatives, unless there are immediate benefits (such as reduced spending).

112. Several participants also noted the importance of addressing climate change mitigation from both a production and a consumption angle. In particular, participants highlighted the importance of consumption patterns.

113. In response to the request made by the authors in the introduction, several participants provided suggestions for how gender issues could be included in the Chapter. Among the suggestions were the following:

- a. The issue of production versus consumption in terms of GHG emissions could provide an entry point into a gender analysis, as male and female consumption patterns tend to

differ. Women also tend to be the main household users of lighting and cooking, as well as electrical appliances.

- b. The role of women in household purchasing is another potential entry point. A recent OECD study, for example, shows that more than 80 per cent of household purchasing decisions are made by women. Women also have a prominent role in terms of the purchasing decisions related to most electricity-consuming devices for the household.
- c. A Swedish survey from 2007 showed that 75 per cent of all cars were owned by men, and moreover, women's cars are generally smaller (thus emitting less) than those owned by men.
- d. The education sector is another sector where a gender perspective can be introduced.
- e. The role of women in municipal governance, including urban design and planning, could also be highlighted, as they are usually under-represented. There may be a case for the introduction of gender quotas to ensure more gender balance. Finland, for example, requires a minimum of 40 per cent of women (and men) in all public bodies. Perhaps a call for such quotas could be included as one of the recommendations of the GRHS 2011.

114. Several participants noted that the essential issue is that climate change will deepen a range of existing inequalities; unequal power relations more generally; the ways that different groups 'use' cities; the ways different groups live with existing inequalities. It is thus essential to broaden the discussion of vulnerabilities from just gender issues, and not look at 'men-women' issues only. The 'men-women' issues come on top of a set of other inequalities. Thus it is essential to disaggregate, not only between rich and poor, but also to disaggregate the poor (who are disproportionately women and children, and disabled, ethnic and other minorities, etc.).

115. Some participants raised concern about the section on governance (section 4.1.1. Multi-level governance), and indicated that this discussion could be improved. Participants also pointed to the "limits of leadership", in particular in terms of potential or actual friction between mayors and local councils and/or between policy makers and bureaucracies. Thus, issues of government legitimacy were flagged as essential, as government can be both exclusive and inclusive. In a similar vein, it was noted that the Chapter should also raise the issue of governance fragmentation. In Hungary, for example, there are 3000 local governments, which are quite independent and are quite often unable to work together. Similarly, a participant noted that in Ibadan, Nigeria, there are a total 5 urban and 6 peri-urban local governments, making coordinated policy-making difficult. However, several participants noted that the discussion on governance could be reduced, to be replaced with an expanded discussion of mitigation responses.

116. It was also noted that the relationship between the state and cities should be considered more thoroughly, although it is referred to in some connections and through some examples. As the requirements for action on climate change issues grows — through international agreements and national regulation (in particular in developed countries) — this will have an impact on mitigation measures. Thus, in developed countries, local action will be guided by the new international climate agreement, European Union regulation, as well as by national legislation and policy guidance. While the targets will be set by other authorities, the strategies and measures will be local choices. In the developing countries the measures will continue to be voluntary and the cities' policies will have even greater role.

117. In relation to this, several participants pointed to an increased need for the Chapter to focus on the instruments of change. How can international agreements and instruments be applied and further developed at the local level to lead to actual emissions reduction?

118. Furthermore, there is a need for the Chapter to address a taxonomy of policy change, in order to ensure that policy responses at the local level are understood from the framework of the individual city, or city policy maker/bureaucrat. In particular, it was noted that there is often very

little incentive for local authorities in developing countries to use scarce resources on mitigating climate change when they cannot even address the basic needs of their current populations. In a situation with rapid urbanization and local climate change consequences caused by emissions in developed countries, local authorities would be hard pressed to justify mitigation activities. What is needed thus is a concrete ‘selling point’ targeted at city officials, e.g. budget savings.

119. Some participants noted that the Chapter contains a lot of examples of mitigation action, focusing on what is done. These examples should also indicate how action is implemented, and by who. It was also stressed that the examples should be presented in a more reflective manner. A long list of examples creates the impression that a lot of activities are going on, while the fact on the ground may be that the existing examples need to be replicated in many more locations.

120. Several participants noted that the second draft of the Chapter should place more focus on distributional aspects of mitigation. Who will pay for mitigation efforts? And who will benefit? Although the discussion of vulnerabilities and vulnerable groups should not have such a prominent position in the chapters as it has in Chapter 6, distributional aspects should still be addressed. The issue of gender has already been raised, consequences for other vulnerable groups should also be mentioned. And, this could be tied to a larger scale discussion, e.g. that the bulk of emissions originate from developed countries, while developing countries may bear the brunt of future consequences.

121. Related to the above, several participants stressed that the Chapter should present more of a strategic focus. Which mitigation activities (and where) are most cost-effective? On a local level, energy-saving light bulbs may be very efficient, but at the larger scale, efforts in developed countries (where emissions are high) may be more efficient than in many developing countries where emissions are already low.

122. Some participants requested more focus on the construction sector in the second draft of the Chapter. As a sector this is quite prominent for the mandate of UN-HABITAT. The construction industries should thus be mentioned specifically. Likewise, it would be appropriate to include a discussion on potential emission reductions from the use of alternative building materials. Earlier research (see for example UN-HABITAT/ILO (1995) ‘Shelter production and employment generation’) has shown that development strategies based on labour-intensive shelter delivery, using local resources, link the goal of shelter for all with that of full employment, in a common strategy for poverty reduction. There may be a case to argue that a similar focus on labour-intensive shelter delivery, using appropriate locally available building materials may increase incomes in low-income neighbourhoods while reducing GHG emissions and also provide more resources for adaptation measures at the local level. The Chapter may thus need to consider recommendations regarding too rigid building regulations in many developing countries, and addressing resistance from some in terms of using non-‘modern’ building materials and technologies.

123. Several participants noted the value of using a ‘sector-based’ approach as that introduced in Chapter 3. This was, to some extent done in Chapter 5, but it would be useful if the authors revisit this to ensure that the chapters are using similar ‘sectors’.

124. Several participants commented on the coverage of the transport sector in the first draft of the Chapter. In general, it was noted that the sector was well covered. However, a few specific issues were raised:

- a. It was suggested that an unsuccessful case should also be included to explain how some measures may not be appropriate. The case of Manchester was suggested. Why did the planned initiatives in Manchester not succeed?
- b. Include a discussion on city-region wide transport planning.
- c. One participant suggested to include the example of Montpellier, France.

- d. One participant suggested that UN-HABITAT should review how the ‘good practice’ transportation examples get distributed throughout the final version of the report.

125. Several participants noted that financial mechanisms and issues are more important than they appear in Chapter 5. For example, the Chapter should review financial incentives that encourage urban sprawl. Likewise, taxation and other financial mechanisms play a major role in driving climate change.

126. There were also several more specific comments, including, inter alia:

- a. Several participants suggested that there was a need to revisit the structure of Chapters 5 and 6, with a view to harmonize these.
- b. One participant suggested that the discussion should focus on the ‘city region’ rather than the ‘city proper’. However, other participants noted that action is normally taken on the basis of existing administrative structures, with consequent limitations in terms of demanding action by actors outside their jurisdiction.
- c. One participant pointed to the potential from networks of cities in terms of mitigation action, i.e. in addition to action taken by cities in response to national obligations under international agreements.
- d. One participant noted that the Chapter contained too many sweeping statements and that evidence should be presented to support these. The same participant noted that the Chapter raised a lot of questions without providing adequate answers.
- e. Some participants noted the need to include more examples from Africa, indicating that there are many examples of mitigation action in African cities, particularly in terms of non-motorized transport.
- f. It was pointed out that ‘cities’ are not responsible for greenhouse gas (GHG) emissions, ‘people’ are. It is thus essential to focus more on the choices made by individuals, in terms of their use of fossil fuels, if we are to effect change. A focus on greenhouse gas accounting does not itself lead to any operational action.
- g. Some participants raised concern about the figure of 75 per cent of CO<sub>2</sub> emissions from cities, from page 1 of the first draft, and suggested that this figure should be presented with more caution.
- h. One participant noted that the Chapter was focusing on emissions reductions and less on sinks. Perhaps the discussion on sinks could be expanded to address this?
- i. One participant noted that the importance of tree planting in cities should be stressed, to reduce the heat island effect (and for a number of other less climate related reasons).
- j. One participant noted that the Chapter sometimes seems to focus on responses themselves, rather than on the broader picture; governance and role of local governments in providing services, etc., in general.
- k. One participant noted that in the discussion of activities in South Africa, Durban is a more prominent case than that of other cities.
- l. One participant noted the problems of executing environmental (and/or climate change) appraisals, particularly of mega projects. Many municipalities feel that there are too many appraisals being undertaken already, and moreover, the capacity to conduct good quality appraisals may be limited in many municipalities. In short, can cities in poor countries afford such appraisals?
- m. Several participants requested the authors to include references to the GRHS 2009 in the report to ensure continuity (and consistency) of the GRHS series. One such reference

could refer to sustainable cities, another would be appropriate with respect to the discussion on governance.

- n. It was suggested that UN-HABITAT — presumably as part of a publicity campaign — calculate the GHG emissions from the production of the GRHS 2011, and then compensate for these emissions in a way that directly addresses urban climate issues. For example, the planting of one mangrove tree for each copy of the book produced would address both mitigation and adaptation concerns.
- o. Several participants indicated that they could provide references to additional research to the Chapter authors (including, inter alia, Professor Pamela Robinson, Professor Ingemar Elander, Dr. Ivan Tosics, etc.).
- p. Several Advisory Board members requested UN-HABITAT to send the case studies prepared for the GRHS 2011 to them so that they may assist in verifying their contents.

## II.A.6. Chapter 6 (Climate Change Adaptation Responses in Urban Areas)

### II.A.6.a. Introduction

127. Dr. David Dodman — speaking on behalf of himself and his two co-authors of Chapter 6, Dr. Saleemul Huq and Dr. David Satterthwaite, all from the International Institute for Environment and Development — made a presentation focusing on the structure of the first draft of Chapter 6. He noted that the first draft of the Chapter had an explicit focus on vulnerability, although he indicated that some of the discussion in the third section (on Assessing vulnerability) could possibly be moved to another chapter in the final version of the GRHS 2011. Furthermore, he noted that the seventh (Challenges to adaptation) and eight sections (Conclusions) would be finalized in the next draft of the Chapter. He also noted that the sixth section (Financing adaptation) would be finalized after the Copenhagen meeting in December 2009.

128. He pointed to the need to discuss new approaches to climate change adaptation policy and practice, including the rise of community based adaptation; the shift from National Adaptation Programmes of Action (NAPAs) to National Allocation Plans (NAPs, i.e. EU emissions trading schemes); World Bank's Pilot Program for Climate Resilience (PPCR) and programmatic adaptation; the costs of adaptation, finance and the adaptation regime; and the diversity of national interests in climate change adaptation strategies,

129. Furthermore, he explained that the authors were not sure how to deal with the fifth section of the Chapter (Stakeholders for adaptation) — which was left empty in the first draft — and thus asked for advice from the meeting. Should this section be a separate section or should it be integrated in the discussion of the other sections of the Chapter? Likewise, he asked for advice on whether to include a more detailed discussion of infrastructure costs in the sixth section (Financing adaptation).

130. He also noted that the second draft of the Chapter would include case studies of new initiatives and pointed out the importance to include a discussion of new directions, ideas and concepts in climate change adaptation in cities, including the adaptation deficit, palliative adaptation (in situ), limits and constraints to adaptation, adaptation and security, mainstreaming of adaptation, and issues related to adaptation and vulnerability (e.g. poor, young, old, gender, etc.).

### II.A.6.b. Discussion

131. The discussion that followed was initiated by brief presentations by four members of the HS-Net Advisory Board who had volunteered to provide detailed comments on the Chapter (Dr. Graham Tipple, Professor Pamela Robinson, Mr. A.K. Jain, and Dr. Debra Roberts), and one

presentation by a gender expert (Dr. Pablo Suarez). After that the floor was opened for comments from participants.

132. Several participants expressed appreciation with the ‘vulnerabilities first’ approach taken in the Chapter. However, the authors should explain better, in the introductory section, why this approach has been taken. Furthermore, the pro-poor approach to adaptation taken in the Chapter could be further strengthened in other sections of the chapter. The social justice issues brought forward through this focus should be repeated in the discussion of specific responses, finance, etc., and again, in the conclusions.

133. Several participants called for a standardization of the discussion on vulnerabilities and vulnerable groups across the various chapters. It was pointed out that the discussion in Chapter 6 focused on vulnerabilities relating to gender and age (but primarily on children, with minimal mention of the elderly). Participants called for the discussion of the vulnerabilities of the elderly, disabled, ethnic and other minorities (including indigenous people), and the poor as well. It should also be highlighted that these group are not exclusive, and people may be subjected to multiple vulnerabilities at the same time, i.e. a single person may be a ‘poor, elderly and disabled, female head of household of an ethnic minority group’.

134. Some participants noted that the Chapter contains a lot of examples of adaptation action, focusing on what is done. These examples should also indicate how action is implemented and by who. It was also stressed that the examples should be presented in a more reflective manner. Rather than just listing individual experiences in section 6.4 the section should be more analytical in nature, focusing on issues rather than individual cases. In this connection it would be useful to revisit the ‘sector-based’ approach introduced in Chapter 3. This could facilitate the organization of the discussion of policy responses.

135. Some participants requested more focus on the construction sector in the second draft of the Chapter. As a sector this is quite prominent for the mandate of UN-HABITAT. The construction industries should thus be mentioned specifically. Likewise, it would be appropriate to include a discussion on the use of alternative building materials. Earlier research (see for example UN-HABITAT/ILO (1995) ‘Shelter production and employment generation’) has shown that development strategies based on labour-intensive shelter delivery, using local resources, link the goal of shelter for all with that of full employment, in a common strategy for poverty reduction. There may be a case to argue that a similar focus on labour-intensive shelter delivery, using appropriate locally available building materials may increase incomes in low-income neighbourhoods while reducing GHG emissions and also provide more resources for adaptation measures at the local level. The Chapter may thus need to consider recommendations regarding too rigid building regulations in many developing countries, and addressing resistance from some in terms of using non-‘modern’ building materials and technologies. This comment should be considered in view of the comments regarding the vulnerabilities of people living in poverty (see paragraph 133 above), i.e. assisting households to avoid falling into poverty (‘below the poverty vulnerability threshold’).

136. One participant noted that it may not be possible to adapt to many of the risks created by climate change. It was suggested that perhaps half of all additional risks may fall into this category (quoting Martin Parry). The Chapter should thus expand its discussion on physical retreat and other such measures. This also introduces the very important issue of ‘climate migrants and refugees’, both within and between countries.

137. Several participants noted that the section on stakeholders (section 6.5) should be retained. It should be discussed separately and also in the other sections, such as in section 6.4 (Adaptation responses). It is essential to know who are able to act.



138. Several participants noted that the section on finance (section 6.6) was very important and should be expanded.

- a. One issue to consider further is that of insurance. It is currently discussed from the perspective of disasters. It was suggested to expand this discussion to deal with the wider issue of insurance related to the public funding for infrastructure, versus vulnerability issues. Moreover, it was suggested that insurance cover may be introduced as a mandatory attachment to all mortgages.
- b. It is important to note that finance is required not only to combat additional risks caused by climate change, it is also required to address the current requirements (the current 'infrastructure deficit'), i.e. addressing the 'total climate risk' concept used in the McKinsey study.
- c. Related to this, should adaptation finance include the cost of housing as well as meeting the existing infrastructure deficit? Will 'international public funding' be willing (or able) to meet this or has it already been accepted that we cannot cover all adaptation costs? It seems there will always be a gap between costs and what the international community will be able to cover.
- d. It is important to address the financing issues related to 'climate migrants and refugees'. Who are to pay for their resettlement?
- e. How shall funds be used to address the most vulnerable? Perhaps not by infrastructure but through poverty reduction strategies. But is this adaptation? How can this vulnerability focus be further integrated in the Chapter?
- f. The discussion should also address funding for resilience.
- g. Are there convincingly quantifiable methodologies for costing adaptation needs? Are governments not going to be discouraged by the scale of this?
- h. What about the problem of 'adaptation capacity' (ability of countries to use money in a cost effective way)?
- i. It was also suggested that the private and public sector funding potentials should be discussed separately.
- j. It was suggested that costs should be differentiated throughout in terms of capital expenditure versus annual operational costs.

139. In terms of the gender focus of the Chapter, several participants provided suggestions for how this could be strengthened. Among the observations and suggestions were the following:

- a. Although the Chapter was the only one in the report with a separate gender sub-section it is important that gender issues are not forgotten in the rest of the Chapter. For example in the section on specific policy responses (section 6.4, pages 15–28) there is only one reference to gender. Presumably this may be because there is little coverage of gender issues in the case studies? But if that is the case, that should be stated explicitly. This may, however, be resolved if this section focuses more on analysis than on presentation of cases (see paragraph 30 above).
- b. It was suggested that gender dimensions could be improved if the Chapter 'de-emphasizes infrastructure and re-emphasizes people', i.e. emphasize 'people-centred adaptation'. Examples were provided in terms of responses to heat wave in Europe (people giving water to the elderly); early warning systems; food security through urban gardening; livelihood diversification through micro-credit; micro-insurance for female headed households; children and school-based climate change; etc.

- c. It was also suggested to focus more on women's (and men's) capacities rather than vulnerabilities. Currently women's capacities are only discussed with reference to post-disaster situations. It was also suggested to downplay issues of mental health. Focus on gender differences in behaviour and implications for adaptive decision-making. Women are assets: 'they are more risk averse; less over confident; tend to be more open to seeking advice and to listening to it advice; and most of all they change strategies in response to new information.'
  - d. It was also suggested that the Chapter could look at physical health issues in addition to mental health; WHO studies suggest women can tolerate heat less because of body fat (although more men work in physically demanding jobs outdoors).
  - e. It was also noted that mortality data from disaster events are variable, but still convincing.
140. There were also several more specific comments, including, inter alia:
- a. Several participants suggested that there was a need to revisit the structure of Chapters 5 and 6, with a view to harmonize these.
  - b. Related to this, several participants noted that there is a need to revisit the links, relationship, conflicts, and priorities between climate change mitigation and adaptation. Speaking on behalf of the Secretariat, Dr. Mutizwa-Mangiza clarified that this was an important element of Chapter 7. One participant noted that the links between adaptation, mitigation, and development in general needs to be in all chapters, but primarily in Chapters 1 and 7. Chapters 5 and 6 should put more emphasis on case studies and empirical knowledge base.
  - c. Some participants indicated that the first section of the Chapter should include a separate paragraph (or two) outlining and justifying the structure of the Chapter (including the 'vulnerabilities first' focus).
  - d. Some participants noted that there was no mention of the Millennium Development Goals in the Chapter. There is a need to refocus the discussion with an explicit focus on basic needs. This should be relatively easy to address given the 'vulnerabilities first' structure of the Chapter.
  - e. Several participants noted that the authors should review the Chapter in order to establish cross-references with other chapters to avoid duplication and overlaps. In particular the authors should check against overlaps with Chapter 2.
  - f. One participant suggested to add information on urban green infrastructure in table 6.1, and noted that there is good information on this from London.
  - g. One participant asked the authors to clarify the meaning of the 'tick marks' in table 6.2.
  - h. One participant noted that the Philippines case study seemed out of place as other case studies are on individual cities.
  - i. One participant noted that adaptation should also be discussed within the framework of the normal cycle of infrastructure renewal.
  - j. One participant noted the absence of an 'action-oriented adaptation tool', or at least the identification of differences in progress for different areas of response.
  - k. One participant noted potential conflicts between heritage conservation and adaptation responses. The issue of the protection of the Paris sewer system was mentioned as an example. How should such issues of conservation be addressed when they come into conflict with adaptation goals?

- l. One participant suggested that the term ‘good governance’ should be avoided, due to earlier international debate on this (as nobody wants to have ‘bad governance’).
- m. One participant noted that there were little discussion of the activities of networks of cities in terms of adaptation action, as initiatives of this type may be central to the establishment of local adaptation (and mitigation) policies. Some such networks are in fact more than just ‘talk shops’.
- n. One participant noted that the information on Durban South Africa is already outdated, and that she had already submitted a revised text to the Secretariat.
- o. One participant noted that the Chapter should include examples of ecosystem-based adaptation (particularly in developing countries), as well as the link to vulnerable communities. It might be appropriate to include a discussion of the employment generation potential in this (e.g. restore water catchments, replant forests, etc.).
- p. One participant noted that there was too much discussion on tsunamis in the chapter, the discussion should focus on climate change related policy responses.
- q. Some participants indicated that they could provide references to additional research to the Chapter authors (including, inter alia, Dr. Pablo Suarez on women as a human resource for adaptation (Pratt et al, 2009)).
- r. One participant noted that with respect to the definition of vulnerability, it is not only people (or infrastructures) that are vulnerable, some industries are vulnerable as well.
- s. Related to this, one participant noted that the chapter should not focus only on social or infrastructural aspects, but on cities as economic entities as well, i.e. places where companies invest.

## II.A.7. Chapter 7 (Conclusion: Linkages between Climate Change Responses and Policy Directions)

### II.A.7.a. Introduction

141. Dr. Patricia Romero-Lankao presented Chapter, which is still work in progress. The main points highlighted include: urbanization and climate change being at crossroads; why it is crucial to know the contribution of urban areas to climate change; the main emitters and drivers of climate change, which has implications for urban negotiations; links between development, urbanization and GHG emission; relationship between vulnerability and adaptive capacity; relationship between mitigation and adaptation; mitigation and adaptation: linkages with other dimensions of (urban) development; future policy directions. The various challenges associated with this chapter were also identified.

### II.A.7.b. Discussion

142. The initial discussion was led by Professors Alfonso Iracheta, Louis Albrechts and Dr. Ivan Tosics, after which the discussion was open to the floor.

143. A major conclusion emerging from the discussion on this chapter is that it should focus mainly on summarizing the key findings of the report and proposing future policy directions with respect to cities and climate change. Such policy directions must relate to the local, national and international level. In other words, the necessary steps that should be taken by these levels of government to deal with the consequences and challenges of climate change should be broadly identified.

144. The chapter should also discuss how existing climate change policies and programmes relating to urban areas can be strengthened. Such discussion should clearly identify or distinguish between what should be the local responsibility from that of the national or international level, given the capacity limitations of local authorities.

145. With respect to the above, short-term and long-term visions should be identified.

146. Given the importance, nature, and possibly wide readership of this chapter, it should be devoid of the common climate change jargon, technicalities and initial analysis in the chapter. There should be no case studies in this chapter. Similarly, Figures 7.1 and 7.2 should be removed. For Table 7.3, only the most affected cases could be included. The chapter should be linked to the previous chapters.

147. Issues of gender should be clearly reflected in this chapter, particularly as it relates to the experience and knowledge that women can make.

148. A major role of this chapter should be to raise awareness about the consequences of climate change so that governments could translate this into the scope of their urban area.

149. The issue of scale has to be given more attention in this chapter. It was asked: what is the best scale for the analysis of the problems and what is the best scale for mitigation and for adaptation? How does the level of scale relate to (multi-level) governance? In the same vein, it was noted that three types of scales need to be acknowledged: geographic/spatial; temporal and organizational.

150. The climate change scenarios as they relate to cities should be placed within and strategic intent or framework. It was however noted that there is not much on scenarios at the city level

151. The discussion of the linkages between mitigation and adaptation has not addressed the co-benefits of both. These are important and need to be discussed in the revised draft.

152. The discussion also identified some of the key messages that the chapter should be conveying. These include:

- a. The need to provide the necessary information and challenges to local governments; emphasizing that things have to be done differently
- b. Urban planning or land use planning will not solve all the problems of climate change; and that transformative policies are required.
- c. The response to impacts of climate change has to be shaped by the prevailing context (context-specific).
- d. Corporate and immediate action is required to deal with issues relating to cities and climate change.
- e. Climate change interventions need to be strategic
- f. The need to build capacity in the field of climate change as it relates to urban areas. This is lacking in many contexts.
- g. Using climate change as the main argument to galvanize action.
- h. The importance of climate-resilient cities.
- i. Identify the top-10 tips for local governments in reducing vulnerability.
- j. Identify the climate change benefits for various categories of cities (developed and developing)
- k. Financing of lower hierarchy urban infrastructure such as foot and bicycle paths. This is an area that the development banks hardly get involved in.

- l. While several organizations can drive the climate change agenda, government is the most important driver given the nature of the problem.
- m. It should be emphasized that local governments are often fragmented and have low capacity, so emphasis should be on national governments.
- n. A recommendation on financing local governments. Local governments should be adequately funded to deal with the issues of climate change within their domain. International funding can play a major role in this regard.

## II.A.8. Gender, Cities and Climate Change: Background paper for the GRHS 2011

### II.A.8.a. Introduction

153. Ms. Gotelind Alber, the author of the background paper on 'Gender, Cities and Climate Change' made a presentation focusing on the main gender issues as they relate to the draft versions of the draft chapters of the Global Report. When introducing the topic, she stressed that gender is not about women and men per se, but rather about gender roles, which change in time and space. Thus gender is not about half the population (i.e. women), but about 100% of the population (i.e. both men and women, young and old).

154. She noted that there are two main arguments for a gender discussion in the Global Report on climate change, namely:

- a. Equality and justice: She noted that there are several international instruments and agreements on gender (and women), including, inter alia, the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Beijing Declaration and Platform for Action, and the Millennium Development Goals. She noted that these should be referenced in the discussion on gender in the report.
- b. Effectiveness of climate policy: She noted that, in terms of mitigation, women (and men, too) are agents of change. Thus focus on consumption, and long-term considerations. In terms of adaptation, she noted the importance of identifying and targeting the most vulnerable groups and individuals, in order to build resilient communities.

155. She pointed to the need to disaggregate data in order to implement efficient policy responses in terms of both mitigation and adaptation. At the city level it is not enough to see how much a city is emitting or that a city will be affected by climate change. We need to identify who is emitting and who is affected. The same applies to the household level. It is essential to identify who in the household are responsible for emissions and who are affected by climate change, i.e. women or men, young and old, etc. In short she called for the inclusion of gender specific carbon footprints.

156. Similarly, while assessing contributions to GHG emissions and impacts of climate change, it is also important to pay particular attention to gender dimensions of various activities, including, inter alia:

- a. Who gets new jobs from mitigation and adaptation responses?
- b. Who is using what forms of transport? Refer to male addiction to large private cars, while women drive smaller cars or use public transport.
- c. Space consumption by gender. Motorized individual transport requires a lot of space.
- d. Financial incentives in the housing sector tend to favour owners over tenants. Women are generally in majority among tenants.
- e. Sex related vulnerabilities, reproductive and other health issues, safety and security.

- f. Participation and power relations in governance. Energy and transport sectors are dominated by men. Thus it is not enough to encourage, but rather to ensure the balanced participation of women, both at decision-making levels, and in stakeholder processes. The report could thus consider recommending rules such as gender quotas.

157. She also presented what she termed the “magic gender triangle” — “power relations and participation”; “economic resources”; and the “care economy” — and stressed that it was essential to include the latter in all impact assessments to ensure appropriate attention to gender issues in policy responses on climate change.

#### II.A.8.b. Discussion

158. The discussion that followed was initiated by brief responses from the four chapter authors, on how they would apply the lessons from the gender presentation when revising their respective chapters. After that the floor was opened for comments from other participants.

159. Dr. Vanesa Castán-Broto, the co-author of chapter 5, noted that she would consider gendered actions in every sector, for example, the fact that men tend to own more cars than women and they tend to have bigger engine capacities than those driven by women, etc. She proposed to look at infrastructure and how gender relations play out in the city and its implications on women. She observed that not many studies have considered gender roles in the use of energy in the household. She would also consider gender roles in terms of infrastructure, including the role of women in recycling. She noted that emphasis has already been put in place to recruit more women in green jobs in Europe, concurring that technology is not gender sensitive, but that she would consider its different effects on women and men. She noted that she was not convinced that the proposed actions would lead to lower greenhouse gas emissions, and stated that she would also consider how to ensure that the transition to an economy based on lower greenhouse emissions could also bring more gender equality.

160. Dr. David Dodman, the co-author of chapters 3 and 6 noted that he would enhance the focus on poverty in the two chapters, and add more material on gender issues. He observed that there is a whole set of issues that affect how people address different concerns in cities, such as the right to the city, or the right to public transportation, and noted that he would include a discussion on this from a gender perspective. Yet, a balance has to be struck to bring all the different dimensions together. The gendered dimension of urbanization needs to be considered vis-à-vis the gendered dimension of climate change. Contrary to what the background paper on Gender Cities and Climate Change was advocating, he was not convinced on the importance of disaggregated data. Are the gender differences really significant? It seems that the emission differences between rich women (or men) and poor women (and men) are much more important than those between men and women. He also felt that most of the examples given in the paper, such as wood fuel stoves, were a diversion from the real issues due to the fact that these do not emit as much greenhouse gases and as such have no direct implications for climate change. He was not persuaded that there is need for a different section on gender. However, he agreed with the gender dimension in chapter 6 particularly looking and considering the need to consider the gendered impacts of mitigation and adaptation policies at various scales.

161. Prof. Matthias Ruth and Ms. Rebecca Gasper, the co-authors of chapter 4, gave assurance that he would revisit the chapter on impact of climate change on gender, but indicated that he would not give gender more prominence as the other issues are equally important. They also thought there was no need for a specific section on gender in the chapter, and suggested that gender should be incorporated into the other sections (and chapters) where appropriate. Furthermore, they also that there was an overlap between the vulnerability issues discussed in chapters 4 and 6 and proposed that the discussion of vulnerability per se should be kept in chapter

4 and while chapters 5 and 6 should focus on the impacts of these vulnerabilities in terms of mitigation and adaptation.

162. Dr. Patricia Romero-Lankao, co-author of chapters 1, 2 and 7, acknowledged that there was need to apply a gender and equity approach to the understanding of greenhouse gas emissions, climate and the eco-system we depend on. She noted that cities have promoted the concept of 'grow or perish'. The need for a broader perspective on gender, age, race, immigrants and other ethnic minorities, and other vulnerable groups, and what coping strategies they have developed so far, was emphasized. She indicated that she would take a second look at the said chapters taking into consideration gender, race and age. She further suggested that she would examine the eco-systems and how they have been affected by the gender question. In particular, she would explore the windows of opportunity available, learning to transition away from the usual unsustainable ways of doing things. She acknowledged that although there is a lack of data, she would work in collaboration with the authors of the other chapters, the gender reviewers and UN-HABITAT in general, looking at key options for actions.

163. Speaking on behalf of the Secretariat. Dr. Mutizwa-Mangiza informed participants that the commissioned gender paper will be completed and published. The paper is a coherent piece that establishes the significance of gender in cities and climate change especially in terms of policies and actions. He confirmed that the paper will be used to inform the chapters of the Global Report and where possible data will be made gender sensitive. He suggested that a separate coherent subsection on gender would be included in the report, perhaps in either chapter 1 or 2. He further committed to producing a separate gender-sensitive publication that will be more useful to a gender audience. For this purpose it would be necessary to recruit the assistance of a communication specialist. This publication will include guidelines on gender sensitive climate change policy and action. In his concluding remarks he stated that the paper on gender cities and climate change should have policy and action recommendations relevant to the city level and implementable by different actors at the city level.

164. Several participants noted that information on many gender specific issues is simply not available, or at best very limited. There is thus considerable scope for more research in this area. One participant thus requested for immediate priorities and ideas that writers can integrate in their research, stating that self-governing elements of chapter 5 had opportunity to integrate gender issues, e.g. in public works dominated by men. In general it was noted that an empirical and contextual approach would help to highlight gender issues, gaps and priorities.

165. Some participants noted that the gender discussion initiated for this Global Report was an opportunity to look at all aspects of climate change through a gender lens. Other participants were not convinced on the significance of gender differences in a lot of the issues to be discussed in the Global Report. As noted by Dr. Dodman (see paragraph 8 above), other vulnerabilities might be much more significant. Thus it was perhaps more useful to look at gender as a dimension enhancing other (perhaps more significant) vulnerabilities, e.g. the Global Report should focus on the "gendering of all vulnerable groups", including the gender nature of decision making and power.

166. One participant raised concern whether international instruments adopted by national governments, in terms of climate change action, were going to be used to justify and support the argument for gender equality. If the report is to offer opportunities for advancing gender mainstreaming which will ultimately lead to gender equality, it will have to do more than just including women in the report. Such topics as gender budgeting for climate change should thus be included. The author of the background paper noted that she would include further discussions on the international instruments on climate change in the revised background paper.

167. One participant noted that instead of only focusing on women in terms of the opportunities they offered for climate change mitigation or adaptation it was just as important to look at the opportunities offered by men.

168. One of the participants noted with concern that some of the chapter authors did not seem to fully understand and appreciate the notion of gender. Many participants thus suggested that the Global Report should include a clear definition of the term 'gender'.

## II.A.9. Global Report on Human Settlements 2013 — Sustainable Urban Transport

### II.A.9.a. Introduction

169. Professor Dimitriou, the author of the issues paper on 'Sustainable Urban Transport' and the draft outline of the GRHS 2013, briefly introduced some key ideas and concepts discussed in the issues paper before presenting the draft outline. He highlighted the importance of considering the 'global context' or the implications of global trends and challenges such as the financial, energy and food crises for the sustainable urban transport challenge. The compounded impact of these global challenges, he emphasized, is leading the world towards the 'perfect storm'. He also emphasized the importance of considering sustainability horizons ranging from short to long term. A focus on short term challenges and solutions (e.g. traffic congestion) would not address the underlying factors threatening the sustainability of urban transport. He underscored the need to examine both the manifestation and root problems of the urban transport crisis. The analysis of the urban transport challenge requires a consideration of risk, uncertainty and complexity and the interactions of these with sustainability. In addition to the three pillars of sustainability –social, economic and environmental- he also emphasized the importance of adding a fourth pillar of sustainability- institutional sustainability. He then presented the draft outline of the GRHS 2013 (Sustainable Urban Transport).

170. Dr. Mutizwa-Mangiza of the Hs-Net Secretariat clarified the procedure for the preparation of the GRHS 2013 as follows:

- a. The outline for the report will be finalized by April 2010 and experts will be commissioned to prepare written inputs on the basis of this by August 2010. The report is to be launched in March/April 2013.
- b. The structure of the report will be composed of the following three main sections: (a) challenges, rationale and framework for the report (b) conditions and trends, including a review of policy responses and their effectiveness and (c) policy directions outlining recommendations at various levels.
- c. Sustainable development is conceived as development which is socially inclusive, economically viable and environmentally sustainable and supported by robust institutions.

### II.A.9.b. Discussion

171. Participants commended the author for the comprehensive coverage of sustainable urban transport issues in both the issues paper and the outline of the GRHS 2013.

172. The following remarks were made with regards to the focus and audience of the report:

- a. There is a need to define the key invisible issues not previously addressed (e.g. by the World Bank) which the GRHS 2013 seeks to make more visible.



- b. The audience for the GRHS 2013 must be clearly defined. The report needs to convince governments (at various levels) and transport engineers as they are the key decision-makers.
- c. The issue of the 'peak oil crisis' can be used as a strategic angle to emphasize the urgency of the urban transport crisis.
- d. There should be a balanced focus on current challenges in urban transport as well as expected future trends.
- e. The title of the GRHS 2013 should be revised to focus on one or more of the following: urban movement, mobility or transport access. This would enable the report to move away from a transport engineering or technology perspective. The report should especially emphasize the inequitable access to transport services and infrastructure in urban areas. Urban transport systems often cater for minority vehicle owners rather than the majority who rely on non-motorized or pedestrian means of transportation. In reviewing exclusion from access to transport services, the report should draw on the social exclusion and participation literature.
- f. The GRHS 2013 should capture the outcomes of previous issues of the GRHS and especially the findings of the GRHS 2011 on Cities and Climate Change. The issues paper already considers climate change but mainly in terms of mitigation and not adaptation.

173. The need to emphasize the human elements of the sustainable urban transport challenge including people and communities in urban areas was noted. Furthermore, although the main challenge for transport planners is the reliability of transport systems, the importance of the social functions of transport such as rebuilding or maintaining social relations and enabling the mobility of disadvantaged groups was underscored. In addition, the examination of the social impacts of transport systems should be expanded (e.g. links to crime). The sustainability impact assessment within the issues paper should also include social dimensions and questions of social justice.

174. The issues paper should consider the role, and at times adverse influence, of the motor car industry on urban transport systems. In this regard, the report should clarify the limits of the prevalent technological optimism about the role of cars in a sustainable urban future.

175. The financing of transport infrastructure and services should be reviewed as a major challenge for sustainable urban transport. In many developing countries, subsidies for public transportation have been discontinued leading to widespread dependence on informal transport provision. Elsewhere, the growing privatization of transport services is a major challenge for sustainable urban transport provision. It has led to a project based approach rather than comprehensive planning.

176. The issues paper needs to consider the gendered dimensions of the sustainable urban transport challenge in much greater detail. In this connection, UN-HABITAT's Gender Mainstreaming Unit indicated that a paper will be commissioned on gender and transport to inform the GRHS 2013.

177. It was noted that the discussion of sustainability should be differentiated by different modes of transportation and type of goods. For instance, accessibility is differentiated across different transport modes.

178. A number of other specific remarks were made as follows:

- a. The review of mega projects and mega cities in the issues paper should be shortened. Greater emphasis on other basic and intermediate modes of transportation and smaller cities is required.

- b. The nexus between land-use and transport planning needs to be elaborated further in the issues paper especially in view of the decoupling of these two in urban areas of late.
- c. Traffic safety and security should be reviewed as a major challenge in urban areas.
- d. The report should consider the main debate within the European context between modal shifts and co-modality.
- e. A focus on repairing existing infrastructure and services in many cities prevents the introduction of new and more sustainable transport systems.
- f. The creation of mobility hubs to service multiple demands in a single location was noted as a potential strategy for sustainability in urban transport.
- g. It is important to focus on the linkages between climate change and transport including through evaluation strategies in during and after disasters, impact of climate change on transport infrastructure and the role of transport in climate change mitigation and adaptation.

179. The following remarks were made concerning governance and institutions for sustainable urban transportation:

- a. The institutional imperatives for sustainable urban transport systems should be examined.
- b. The implications of e-governance for urban transport and mobility should be considered.
- c. The scope for subsidiarity in transport planning should be examined as local governments may be restricted by higher level policies.
- d. There is a need to question the authenticity of public consultation in the planning, designing and implementing transport infrastructure as, in many instances, the public is simply consulted on predetermined decisions.

180. With regards to sustainable transport policies, the following observations were made:

- a. There is a need for a more empirical approach backed by illustrative case studies and examples of policies and strategies that can be adopted in other contexts.
- b. A focus on strategic leverage points for action is important when considering interventions to improve the sustainability of urban transport.
- c. The GRHS 2013 should employ scenario planning to propose policies and recommendations and determine actions and actors. However, the construction of scenarios at the global level is risky as scenarios need to be context specific and relevant to specific cities.
- d. The training and education of transport planners is a major strategy for enhancing the sustainability of urban transport systems and services. There is a need to sensitize engineers and infrastructure experts on social science perspectives of sustainability.
- e. The potential benefits of pedestrianization and car free towns should be reviewed in greater detail.

181. It was suggested that different products should be considered for communicating the messages of the GRHS 2013 including short films. One participant offered to shoot a film in Dakar, Senegal in the near future, if requested.

182. In response to the above observations, Professor Harry Dimitriou, made the following remarks:

- a. The questions of movement, accessibility and affordability are central to the challenge of sustainable urban transport and therefore require further clarification in the issues paper and the GRHS 2013.

- b. Transport planners are overly focused on service delivery thereby overlooking other dimensions of urban transport provision.
- c. The question of subsidies for transport is crucial and will be considered.
- d. There is a need to operationalize the concept of 'sustainability' in urban transport by moving from dialogue into the arena of actions.
- e. Whilst multiple frameworks may be used to review the challenge of sustainable urban transport, a strategic approach is required to catch the attention of policy makers.
- f. The motor industry understands the importance of engaging with international agencies with regards to transport so there is a need to capitalize on this.
- g. The report should outline various scenarios and let policy makers prioritize their actions as they see it fit. A mechanism to choose amongst various priorities is required and this needs to be decided locally and/or nationally.
- h. The GRHS 2013 should construct three types of scenarios namely the worst, best and most likely scenarios. These should take into account around different capacities.
- i. Private sector investment in transport is crucial but the associated risks of this involvement should not be moved to the public sector.

## II.A.10. HS-Net Activities

### II.A.10.a. Introduction

183. Dr. Edlam Yemeru of the HS-Net Secretariat made a presentation of the HS-Net Annual Report for the period from September 2008 until October 2009 (the report is contained in Annex IV to this report). The presentation focused on the restructuring of the HS-Net such that it will henceforth focus on sharing information on the Global Report on Human Settlements. In addition the Advisory Board will continue to serve as the selection committee for the UN-HABITAT Cities Lecture (previously known as the UN-HABITAT Lecture Award). Thus a number of activities originally planned to be undertaken by the HS-Net will be terminated, including the Human Settlements Global Dialogue Series (fifth and last issue to be published before the end of 2009) and the HS-Net Blog (already terminated), etc.

184. With respect to the UN-HABITAT Cities Lecture, Dr. Yemeru noted that so far five nominations have been received, and that there may be a need to extend the deadline for nominations with one month until the end of November 2009. She also suggested that the HS-Net Advisory Board (in its capacity as selection committee for the Lecture) should complete its review and selection by the end of December 2009.

185. With respect to the future focus of the network on the Global Report series, Dr. Yemeru noted that the Secretariat had compiled a mailing list of more than 600 individuals and organizations — mostly planning schools — which would be used to disseminate electronic updates on the progress with the Global Report series, on a quarterly basis. She noted that the mailing list would be expanded in the future.

### II.A.10.b. Discussion

186. The discussion that followed focused on the need to improve the quality of the UN-HABITAT Cities Lecture. It was noted that the quality of previous lectures had been quite poor, and that the attendance at the 2007 and 2008 lectures had been poor. It was thus agreed that the selection committee would in the future focus on the nominees' ability to present a good lecture and to draw a larger audience.

187. It was also agreed that UN-HABITAT should explore new methods of announcing the Lecture through the media in advance of the event, to encourage the presence of a larger audience. Furthermore, it was decided that nominations for the 2010 Lecture should be extended until the end of November 2009, while Advisory Board members should seek to identify additional nominees. It was agreed that the Advisory Board should complete its review and selection of nominees by the first week of January 2010.

188. Following requests from Advisory Board members, the Secretariat agreed to disseminate revised procedures for the selection of the award winner by the end of October 2009.

## **Annex I. List of Participants**

### **HS-NET BOARD MEMBERS:**

Albrechts, Louis — Chair, HS-Net  
Roberts, Debra Vice — Chair, HS-Net  
Agbola, Samuel Babatunde  
Elander, Ingemar  
Iracheta, Alfonso  
Jain, A.K.  
Mosha, Aloysius  
Ng, Mee Kam  
Peters, Deike  
Robinson, Pamela  
Sclar, Elliott  
Tipple, Graham  
Tosics, Ivan  
Yuen, Belinda

### **UN-HABITAT**

Mutizwa-Mangiza, Naison — Head, HS-Net Secretariat  
Ahmed, Sharif  
Arimah, Ben  
Buhren, Karin  
Jensen, Inge  
Kang'ethe, Nelly  
Kiwala, Lucia  
MRabu, Rachael  
Njenga, Cecilia  
Yemeru, Edlam

### **CONSULTANTS, GLOBAL REPORT ON HUMAN SETTLEMENTS 2011**

Castán-Broto, Vanessa  
Dodman, David  
Gasper, Rebecca  
Romero-Lankao, Patricia  
Ruth, Matthias

**CONSULTANT, GLOBAL REPORT ON HUMAN SETTLEMENTS 2013**

Dimitriou, Harry

**GENDER EXPERTS**

Agoza, Titilope Ngosi

Alber, Gotelind

Alston, Margaret

Kalela, Aira Marjatta

Kholsa, Prabha

Suarez, Pablo

## Annex II. Programme of 6th HS-Net Advisory Board Meeting

Date	Time	Focus & Speakers	Chair
19 October	9.30am-10am	Opening & Adoption of Agenda <i>Naison Mutizwa-Mangiza</i>	-
	10am-10.15am	Coffee	
	10.15am-12pm	Introduction of Board members Election of Board Chair and Vice-Chair	Naison Mutizwa-Mangiza
	12pm-1pm	Lunch	
	1pm-4pm	Global Report on Human Settlements 2011: Chapters 1 & 2 <i>Patricia Romero Lankao</i>	Naison Mutizwa-Mangiza
	4pm-4.15pm	Coffee	
	4.15pm-6.15pm	Global Report on Human Settlements 2011: Chapter 3 <i>David Dodman</i>	Graham Tipple
20 October	9am-11am	Global Report on Human Settlements 2011: Chapter 4 <i>Matthias Ruth</i>	Aloysius Mosha
	11am- 11.15am	Coffee	
	11.15am-1.15pm	Global Report on Human Settlements 2011: Chapter 5 <i>Vanesa Castán-Broto</i>	A.K.Jain
	1.15pm-2.15pm	Lunch	
	2.15pm-4.15pm	Global Report on Human Settlements 2011: Chapter 6 <i>David Dodman</i>	Belinda Yuen
	4.15pm-4.30pm	Coffee	
	4.30pm-6.30pm	Global Report on Human Settlements 2011: Chapter 7 <i>Patricia Romero Lankao</i>	Elliot Sclar
	7.30pm-9pm	Dinner (Hosted by UN-HABITAT)	
21 October	9am-11am	Global Report on Human Settlements 2011: Gender, Cities and Climate Change <i>Gotelind Alber</i>	Pablo Suarez
	11am- 11.15am	Coffee	
	11.15am-1.15pm	Global Report on Human Settlements 2013: Draft outline <i>Harry Dimitriou</i>	Deike Peters
	1.15pm-2pm	Lunch	
	2pm-4pm	HS-Net Activities <i>Edlam Yemeru</i>	Louis Albrechts
	4pm-4.30pm	Closing <i>Naison Mutizwa-Mangiza</i> <i>Louis Albrechts</i>	-

## Annex III. Draft Outline of the Global Report on Human Settlements 2013: Sustainable Urban Transport

### PART I: INTRODUCTION (12%)

#### Chapter 1: Background (2%)

##### 1.1 Aims and background to report

The overall purpose of this report is to provide an internationally informed basis for designing, developing and implementing policy and planning responses consistent with the aims of sustainable development to fast growing global urban transport and movement needs. This effort seeks in part to build on the findings of previous Global Reports on Human Settlements (GRHS) that impact on urban transport *and* draw on the conclusions of other influential reports and seminal publications that have a bearing on the task. The paper is part of the on-going preparatory work currently underway by UN-HABITAT in the preparation of the ninth issue of GRHS (for the year 2013) which is to focus on the theme of *Sustainable Urban Transport*.

##### 1.2 Appreciation of aims and purpose of the GRHS 2013

The justification of the choice of the theme of *Sustainable Urban Transport* for the GRHS 2013 report is premised on the rapidly rising populations and the concomitant growing demand for movement that urban areas today globally face. The *unprecedented* scale and pace of this urban transport and mobility growth (much of it motorized) has led many to declare the inability of cities to accommodate this development within the resources available as a crisis and has all too frequently been mistakenly characterised primarily in terms of traffic congestion, whereas in reality it is *so much* more as this paper seeks to explain.

##### 1.3 Scope and components of sustainable urban transport

The scope and coverage of the vision of sustainable urban transport as discussed in this paper reflects the aspirations and principles regarding urban sustainability that have been presented in past seminal publications and in statements produced by UN-HABITAT. From these we can assume that the pre-requisites of sustainable urban transport require coverage of the following dimensions:

- **Social sustainability** – where the benefits of transport services and improvements are equally distributed in a society or community
- **Economic sustainability** – where this relates to the sustained efficient use of resources in the urban transportation sector, as well as the sustained proper maintenance of urban transport infrastructure and assets.
- **Environmental sustainability** – which relates to the external effects of urban transport services and infrastructure on *both* the built and natural environment.
- **Institutional sustainability** – where this addresses the role and capacity of governance, institutions and decision-making affecting subsequent resourcing practices.
- **Inter-dimensional aspects of sustainability** – here the conflicts and trade-offs (and priorities) among the above different dimensions of sustainability are addressed in the operationalization of the integrated vision for sustainable urban transport.



## Chapter 2: The new context (10%)

### 2.1 Summary of findings of previous Global Reports on Human Settlements (2%)

This section will highlight those findings of earlier GRHS which provide an invaluable platform of knowledge for understanding the historic and multi-thematic contexts underlying the fast growing demands for urban transport world-wide and the mobility challenges they spawn, particularly in the developing world.

- GRHS 1986: *General Human Settlements Conditions and Trends*
- GRHS 1996: *An Urbanizing World*
- GRHS 2001: *Cities in a Globalizing World*
- GRHS 2003: *The Challenge of Slums*
- GRHS 2005: *Financing Urban Shelter*
- GRHS 2007: *Enhancing Urban Safety and Security*
- GRHS 2009: *Planning Sustainable Cities*
- GRHS 2011: *Cities and Climate Change*

### 2.2 New age of uncertainty, risk and global interdependence (2%)

This section alerts the reader to the implications of the unfolding interconnected events of hyper-mobility, rapid urbanization and motorization, and the health and climate hazards associated with recent urban transportation infrastructure developments world-wide. It emphasizes that they are all inextricably inter-related and have a global reach *wherever* they take place. This is presented as the new uncertain and complex global context for transport policy making and planning for cities wherever they may be. It is presented as a context full of risks (and for some, opportunities *also*). It is a context where recent economic growth has been severely disrupted and significantly constrained, with past economic growth driven strategies once again challenged by an acknowledgement of the limits to growth, this time argued with potency and supporting global scientific evidence not before presented. It is a world where, paradoxically, future motor vehicle production is predicted to further explode (albeit stalled at the time of writing); where infrastructure-led financial stimuli programmes have been introduced to help re-ignite national and global economies; and where major reductions in carbon footprints on all aspects of mankind's activities are simultaneously being sought.

### 2.3 Convergence of global challenges and 'the perfect storm scenario' (2%)

This section highlights the fact that as China and India, together with other large countries of the emerging economies urbanizes and motorize, new energy demands and infrastructure needs have grown at a scale *never* experienced before. The convergence of these global developments with those associated with the historic event in 2006 when for the first time the world had more urban inhabitants than rural, and more motor vehicles circulating than ever before, is accompanied by: a looming global energy crisis; an emerging global food production crisis; a predicted widespread shortage of potable water and a crisis in global governance and corporate responsibility. Most significant of all, these developments are accompanied by man-induced climate change leading to global warming that is predicted to soon become irreversible if adequate safeguards are *not* taken, with the poor especially vulnerable to the fallout of this development. The world has, furthermore, also been confronted by a global credit crisis that undermines the very basis of world finance - the lubricant of globalization. While some consider this 'turbulence' in the financial global markets to be part of a historical pattern of economic recessions rather than anything permanent, others see its emergence with the cocktail of other lethal global challenges as potentially, *very* problematic indeed creating conditions for 'the perfect storm.'

## 2.4 Shift of world economic equilibrium eastwards (2%)

This section emphasizes the seismic geopolitical shift currently underway whereby the above developments are taking place at a time when the economic and political centre of gravity of the globe is rapidly *and* dramatically moving eastward with: China, Japan and India possessing in 2007 the highest gross national income at purchasing power parity (PPP) in the world with the United States; the Asian proportion of world trade standing just above 24 per cent in 2007 and looks set to further expand in the future despite the recent global downturn; the Asian share of the world's GDP amounting to almost 32 per cent in 2006, with China, Japan and India constituting more than 66 per cent of this; the four emerging Asian economies of China, Indonesia, South Korea and Singapore with GDP annualised average growth rates of more than ten per cent in the second quarter of 2009; and the growth of motor vehicle manufacturing in Asia now far outstripping vehicle production rates in Europe and North America, notwithstanding contemporary problems in global markets.

## 2.5 Implications for human settlements and their movement needs (2%)

This section presents the above challenge of transition as one that both global and local policy makers and planners *cannot* postpone any longer and must confront *urgently* in consultation with environmentalists, economists, financial experts, energy specialists and civil society representatives. It is argued that this requires as a starting point a critical examination of the reasons for past failures and achievements of urban transport policy making and planning with a view to choosing visions for the future that respect the finite nature of resources *and* the imperative to consider the needs of future generations simultaneous to responding to the new opportunities before us. This multi horizon perspective can *only* be effectively operationalized it is contended, on a basis of more extensive global collaboration and regulation, meanwhile taking care *not* to stifle the energies of competition that lead to greater wealth creation and innovation.

# PART II: URBAN TRANSPORT AND KEY DRIVERS OF CHANGE (54%)

## Chapter 3: Economic and population growth, urbanization and motorization (30%)

### 3.1 Introduction (3%)

This part of the report seeks to set out key trends, dimensions and drivers of change that affect the growth and development of urban transport, globally, with particular attention paid to cities in the developing world where a fast pace of motorization has particularly sharpened recent urban and transport development challenges. The premise here is that an analysis of these contributing factors will greatly assist future policy making and planning needed to achieve sustainable outcomes.

The chapter addresses trends and dimensions of rising urban populations and economic growth and their inter-dependence as part of the wider phenomena of urbanization; urbanization trends and their link to trade and globalization; urban incomes, urban poverty and the rise of the middle classes; trends in motorization, public transport usage and non-motorized movement; and the relationship between urbanization, motorization, urban sprawl and other related urban form changes.

### 3.2 Context matters (3%)

Notwithstanding the claim that the current divide between the developed and developing countries is largely a phenomenon of the 20<sup>th</sup> century, this section explains that the report's underlying premise is that urban transport policy and planning challenges today in the developing world and in transition economies differ *significantly* from those found in urban areas of the developed world; as do the resources and institutional frameworks at the disposal of policy-makers and planners in such countries. The decision to contextualise the urban transportation challenges and the policy and planning responses in this way rests on the presumption that context *does* matter, and that transport and development features of the developing world have characteristics of sufficient commonality to be able to refer to them as one group, despite their considerable diversity. An effort is to be made here to summarize the similarities and differences of the identified drivers of change according to whether they relate to cities in the: 'so called' developed world, the developing countries and/or the transition economies as a basis for drawing up key generic and context-specific conclusions on a global perspective for urban transport policy making and planning practice.

### 3.3 Economic growth and cities (3%)

This section is to explain how and why in the last two decades the world has experienced unprecedented economic growth - much of this focused in and generated by its urban areas. The discussion will highlight the significance of economic productivity and that the economic importance of cities typically increases with urbanization; output per capita being significantly higher in cities than in non-urban locations. An explanation will be provided as to why trade is seen as the engine of growth for cities of the developed *and* developing world, alike. As the 'engine rooms' of this growth cities therefore constitute the principal centres of transportation, production, consumption and innovation, as well as focal points of employment and economic activity, making them major magnets of population migration from rural areas. They of course also function as centres of culture, information exchange, knowledge and modernisation, as well as the choice of residence of the rapidly growing middle class; all with impacts on transport demand and movement within cities.

The section will outline how economic and other activities of urban households and city productivity and liveability *all* depend vitally on the performance of urban transport systems. The point will also be made that urban transport in developed, developing as well as transition economies account for major public sector budget outlays. Projects in this sector can be among their largest capital investments. When urban transport services and infrastructure do *not* perform well, consequences are felt by households, businesses *and* national and urban communities at large. If these deficiencies go unattended, furthermore, urban transport can become a binding constraint on both local and national economic, social and environmental development.

### 3.4 Urban population growth (3%)

This section explains the significance of the fact that approximately half of the world's population of 6.4 billion live in urban areas as compared to 15 per cent at the beginning of the 20<sup>th</sup> century. During the 20<sup>th</sup> century the globe's urban population increased more than ten-fold. The fact that the present scale and rate of urbanization in the developing world is unprecedented will also be made with the expectation by the middle of the 21st century that the total urban populations of this part of the globe will more than double - from 2.3 billion in 2005 to 5.3 billion in 2050 - with much of this growth concentrated in Asia and nearly all of it the developing world. According to UN-HABITAT (2009), three million people are added *every week* to the cities of the developing world. The section will emphasize that the greatest impacts of urbanization have taken place in

Asia which contained 3.7 billion of the world's total population of 6.1 billion in 2001, and is currently home to 4.1 billion of the globe's 6.8 billion. It is projected to reach just over 6 billion in 2050 - almost 55 per cent of the projected world's population for this period. The continent was at the epicentre of developments when for the first time in history the world in 2006 had more urban inhabitants than rural, with the largest proportion of urban inhabitants living in Asia.

### **3.5 Urban form and urban sprawl (3%)**

This section will outline how urban population increases are accompanied more than proportionally by spatial expansion and that predictions see a tripling of the area within cities by 2030. Urban sprawl has been especially promoted in China following the introduction of land markets. These developments are fed by rising incomes, motorization and the desire of local governments to lower core densities, reduce congestion and attract foreign investors. The section will also explain that urban expansion is taking place in cities with limited population growth, involving internal re-structuring of residential and business activities made possible by the rise in motorization and incomes as in the case of Moscow, Warsaw and Budapest in the 1990s. The concurrent reduction in urban densities this has brought about, especially in the form of sprawl, has major investment and operating cost implications for infrastructure and services, especially in the transport sector. The most problematic urban sprawl challenges it will be explained are those of the informal sector at the urban fringes of cities in Latin America, Africa and South and South-East Asia which typically house the lowest-income inhabitants, usually (but not always) the most recent migrants.

Urban form as measured by factors such as urban density and centralisation of jobs is *critically* important in explaining transport patterns, especially motor car use and public transport. Overall, the dense, centralised urban form of lower income, rapidly motorizing cities is generally well suited to public transport systems, despite the fact that many such settlements do not have good public transport systems to support their urban form. Such densities are typically associated with more mixed land use thereby making these environments more conducive to non-motorised movement, making the on-going threat to walking and cycling by increased motorization very problematic indeed. Many lower income cities also have strong corridors of development where densities and mixed land use are highest and that these are ideal for public transport, despite the fact that most such settlements do not have dedicated public transport rights-of-way (ROW) and the high quality public transport services needed to support them.

The section explains why land use-based urban transport planning is potentially more important in the developing world than in the North, with the key strategic planning decisions ahead being whether to: attempt to plan land use to reduce trip making, shorten trips and encourage the use of transit (public transport) while planning transport services and infrastructure to reinforce this intent or whether permit market forces, within only limited regulatory constraint, to determine the locations of travel demand and arrange transport policies and services to accommodate it, meanwhile depending mostly on vehicle technology and vehicle use policy to deal with environment.

### **3.6 Urban incomes, poverty and rise of the middle classes (3%)**

This section explains that of the major outcomes of urbanization in the developing world are the twin developments of the increase in numbers living in urban poverty and the rise of the emerging middle class. While it will also explain that generally there is a well-established positive correlation between urbanization and incomes, in many cases, the newly generated urban wealth *cannot* match the population growth, especially when the latter is dominated by waves of rural migrants.

Attention is to be paid to the fact that in 1990, one third of the urban population of the globe were living in poverty. By the year 2000, the numbers of the urban poor world-wide is reported to have reached the one billion mark. The largest concentration of this poverty is in Asia and is likely to remain so in the foreseeable future. The root cause of urban poverty – it should be noted - is the lack of jobs which provide an adequate income that meet *at least* the costs of a household's basic needs. The poor's inability to access jobs and services is therefore a very important element of the social exclusion that defines urban poverty. Criticism is levelled at the fact that while action programmes promoted by international funders have more recently promoted national strategies for reducing poverty, the implementation of Millennium Development Programmes was *not* explicitly cited in the agenda of these programmes. One can only fear from these developments that ultimately the access of poor people to public transport will deteriorate over time, as improvements in transport supply involve an increase in the average fares.

The section highlights the significance of appreciating economic (affordable) accessibility to basic needs as opposed to physical access. The point will be made that higher mobility does *not* necessarily represent better living conditions. What matters is the (affordable) accessibility to desired destinations, which can be obtained with *less* movement. The use of urban transport and movement as a strategic means to overcome urban poverty *also* has the underlying premise that the *denial* of such access contributes to urban poverty.

Emphasis will be laid on the fact that limited household incomes of the urban poor make travel time savings by motorized modes *much* less significant than thought by many transport specialists because the cost of such travel typically has very high opportunity costs. While daily travel time budgets are usually large both among the poor and non-poor inhabitants of cities of the developing world, they are especially high among poor employed men. Also to be stressed are the constraining aspects of gender mobility. Also covered will be a discussion of the significance of the transport sector itself offer employment to the urban poor. Urban transport is a great purveyor of jobs in developing cities. Jobs created of this kind can be numerous as they typically rely on vehicles of low capacity for a constant passenger demand. This results in a high potential for jobs in self-employed transport modes, with employment access suitable for people *without* qualifications.

The marked rise of the middle classes in the developing world and emerging economies will be highlighted and discussed. This has been a major feature of world development in recent decades. This income group was estimated to total 400 million in 2005 and is predicted by the World Bank to reach 1.2 billion by 2030; these represent *only* six and 15 per cent of the world's population, respectively. If one defines the middle class in the developing world as those that have moved *out of poverty* by earning more than US\$ 2 per day, then the proportion of the Indian population that is 'middle class' is *very much* greater. By employing the latter income bracket, those that can be considered middle class in the developing world between 1990 and 2005 almost *double* from 1.4 billion to 2.6 billion; rising from one-third of the developing world's population to half. This is an *enormous* stimulus for urban movement and transport demand and very different from the kind associated with movements of the urban poor. This latter estimate is considered by many development experts to better reflect circumstances in the developing world, especially in China, where the numbers living on US\$ 2-13 a day rose from 174 million, to a staggering 806 million in merely 15 years. The equivalent growth in India saw an increase from 147 million to 264 million.

For purposes of assessing future motorization trends in cities of the developing world there is then a certain rationale for employing this more loose definition of the middle class, for although urban residents with incomes of US\$ 2-13 per day are much less likely to represent the purchasers of motor vehicles (including motorcycles) as compared to those earning US\$ 13-60 per day and more, they *do* represent a new growth category of consumer of motorized movement that would very substantially increase the demand for urban transport services and infrastructure. Whether

they constitute a category that can generate sufficient tax and user revenues to help fund this increased demand, however, is another matter!

### 3.7 Motorization (3%)

This section will explain how and why motorization has been at the highest level the world has ever seen with the focus of its growth concentrated in the developing world and transition economies. It explains how this development is driven by economic, demographic and spatial urban growth and very much by the rise of the middle classes. Ownership of a motor vehicle brings to a household both greater mobility and more freedom to move *plus* social status with the result that as household and individual incomes increase, motor car and motorcycle ownership (and use) rise together with that of motorized freight movement.

While motor car ownership rates in cities of the developing world remain at a modest level relative to those in higher-income countries. The motor car dependent American cities and those of Australia and New Zealand have much higher trip making rates than any other regions. Western European cities have trip rates that are balanced equally between trips by private transport and trips by public transport, walking and cycling. Eastern European cities, on the other hand, have only 27 per cent of daily trips by private motorised modes.

It will be explained that the explosion of individual motorization in the USA was an outcome of a wealthy society going through a period of sustained economic growth, urbanization and suburbanization which led to the emergence of an expertise of traffic engineering, urban transport planning and policy making that saw the freedom promised by the private car fit in with concepts of individualism and markets underlying the American society – otherwise known as the ‘American Dream’. The section will further explain that based on a predict-and-provide planning ethos of accommodating individual motor vehicles, and low development densities to the maximum possible by building extensive and hierarchically structured road networks, this profession saw the urban transport problem simply as that of missing road capacity and that this perception dominated the policy response to urban transport problems both in the USA and elsewhere for several decades – some would argue even today.

A very different approach (vision) was employed to address urban transport challenges in the Soviet Union and its East European neighbours after WWII. Here cities were planned and built, with strong centres and at high densities, directly by governments” with the resolution of urban transport problem being framed in much less individualistic terms, based on notions of communal welfare. Public transport was chosen by governments as the *primary* mode for passenger transport, and was treated as a nearly free public good, with corresponding capital investments and pricing policies. Railways were preferred for intercity travel of both passengers and freight, and rail-based modes were favoured in urban travel. Urban road networks remained at a modest scale and, relative to US cities, undifferentiated in terms of movement and access functions. With the advent of globalization and at the twilight of socialism in the mid-to-late 1980s, however, the market share of public transport modes that was as high as 80-90 percent in Moscow, Budapest and Warsaw has dramatically fallen. The market liberalization of the governments and economies of these countries, in the 1990s subsequently saw an era of generous public funding for public transport and other public services apparently over. Urban public transport systems instead came under strong pressure to raise fares, reduce services, and increase operating efficiency while the rise of motorization and the subsequent spatial restructuring of cities led to an erosion of the market share of public transport, and added loads on urban roads that were originally designed for other lifestyles and different land use patterns.

### 3.8 Public transport (3%)

This section will offer an examination of the relative investment spending on public transport compared to roads in a spectrum of low income cities confirms that in general, investment in public transport infrastructure is *less* than in roads, with the exception of higher income Asian cities (HIACs), which exceed road investment by a considerable margin. In Eastern Europe, there was almost parity in the mid-1990s and in Western Europe the ratio was 0.84. For most other regions the ratio is dominated by a bias in road investment, with North American cities having a very low ratio of 0.20 to 0.22. Under these circumstances it is difficult for public transport in any city to compete with private transport where there is sustained higher investment spending on roads.

The relative size of the expressway network in cities compared to the dedicated right-of-way for public transport reveal the strong networks of rail in Eastern European cities compared to expressways and the relatively strong position of other cities compared to the motor vehicle dependent cities of USA and Canada. This is primarily due to their low levels of road provision rather than any extensive provision of public transport rights of way. Chinese and other lower income Asian cities (LIACs) have a poor standing regarding the quality of public transport infrastructure.

The discussion will explain how vehicle kilometres of public transport service per capita *can* provide a useful (albeit limited) illustration of the extent of public transport service in cities. In terms of total service provision, American, Chinese and Middle Eastern cities perform badly and have a low proportion of service by rail. Canadian, Australian and New Zealand cities are not very much better, with the strongest performance offered by African, Latin American and LIACs and a significant proportion of service in these cities provided through private operators using smaller buses and vans. Estimates also reveal that Eastern European cities offer high levels of service on this measure; much of it by rail, with Western European cities (also possessing a significant rail component) falling between the extremes.

An analysis of seat kilometres of service per capita suggests that this indicator is essentially in line with the vehicle kilometres data, with North American, Chinese and Middle Eastern cities showing *very low* service levels and low seat kilometres of service by rail modes. In the HIACs, there is a much higher rate of seat kilometres of service than LIACs - almost double the rate - whereas LIACs have slightly greater vehicle kilometres of public transport service per capita than HIACs. An important point that also emerges is the relatively poor usage of public transport in the developing cities *outside* China.

Despite disappointing levels of public transport use in the developing world and in the transition economies, the contribution of public transport to overall motorized passenger transport is considerably higher in the poorer cities than in developed cities. This is due to much lower levels of private motorised mobility. In the four groups of developing cities outside Eastern Europe and China, the proportion of motorized travel by transit averages 42%, whereas in the Western European and HIACs, it averages 32 per cent. This shows the extreme auto dependence of the North American and Australian and New Zealand cities, which average only seven per cent.

The section will explain why many investors are critical of many of investment experiences in the urban transport sector in the developing world, particularly in public transport. Such parties argue that too numerous major city transportation investments are made without a reasonable effort to develop a full range of alternatives or to evaluate fairly their economic and financial consequences. As regards the use of taxis, often neglected in the analysis of city transport systems, the section highlights their high level of use in developing countries - with the exception that HIACs have the greatest taxi service levels.

### 3.9 Freight movement (3%)

This is a very important aspect of the urban transport sector too frequently overlooked. It has not yet been researched for this report but critical aspects of urban freight movement and their impact/contribution to sustainable development will be reported on and completed in final version.

### 3.10 Non-motorized movement (3%)

This section emphasizes that non-motorized transport (NMT) is *not* limited to just walking and cycling. It represents all forms of transport which are not motorized, such as human and animal powered transport modes, including: walking, tricycles, pedicabs, rickshaws, *becaks* and hand carts. It also includes bullock carts, horse carts and camel carts, as well as head loads and shoulder loads (e.g. goods carried on heads and/or shoulders by human beings). NMT is the dominant urban transport mode in Asia and Africa. They are clean and non-polluting, generate little or no noise, and are very cost effective, healthy and safe. The section explains that NMTs are the modes that are mostly employed by poor and lower-income households for their daily movements in cities of the developing world and that they are the first to suffer from the adverse impacts of motorization, followed by passengers and operators of street-based public transport modes.

The discussion alludes to the fact that most politicians and transport and infrastructure professionals in cities of the developing world ignore the needs of NMT users and do not provide the necessary infrastructure support because. They consider such modes as a sign of backwardness and not commensurate with their development goals and aspirations. This is particularly the case in the major cities of Asia and Africa, notwithstanding the recent indications that this may be changing in China, with the government mandating that the cities return the bicycle lanes previously converted to motor vehicles lanes, back to the bicycles. Furthermore, despite the rhetoric it is explained that the World Bank and the Asian Development Bank pay only lip service to NMT user needs, investing miniscule amounts in NMT improvements in their projects. This is seen as *highly* inappropriate in many cities of the developing world where 40 to 70 per cent of an urban population do *not* use motor cars or motor cycles.

## Chapter 4: The urban transport and mobility crisis (24%)

### 4.1 Mismatch between pace of motorized traffic growth and infrastructure support (4%)

This section argues that the traditional diagnosis of urban transport problems attributes the major urban transportation challenges to an increase in city movement demand that is *not* matched by appropriate responses on the supply side, in terms of transport infrastructure and services. This focus on the pace of motorized traffic growth versus infrastructure support, and associated traffic congestion, it is contended, has distorted transportation expertise and investment for far too long, especially in the developing world.

The discussion highlights the fact that recognition of the fact that traffic congestion is *merely* a manifestation of one part of the urban transportation problem is *not* new. It also makes the point that the misdefinition of the urban transportation problem has resulted in too little attention being paid to tackling root causes and too much attention to promoting enhanced motorized mobility – as opposed to promoting affordable accessibility in line with principles of sustainable development. This bias was reflected in the World Bank's Urban Transport Strategy of 2002 entitled *Cities on the Move*, where much of the emphasis of its overall message was on transport



demand management and the operations efficiency of transportation systems, in reality, only paying lip service to the broader concerns of sustainability and the disadvantaged. This is very different from the Bank's most recent policy document on urban transport which takes on board a much more holistic and enlightened perspective.

#### **4.2 The future of energy for urban transport (4%)**

The prospect is that the demand for transport energy in cities of the developing world will almost certainly continue to grow at a stronger pace, notwithstanding the economic, technological and environmental obstacles/constraints. Estimates suggest that the growth in urban transportation energy use could be as high as a factor of 30 - to develop from the current state in cities of the developing world to a future point that corresponds to the current state of development in cities of the developed world. Over the same time horizon, it is predicted that freight transportation energy use may multiply this by at least a factor of 15.

This section explains how through global pressures of hyper-mobility, this has led to the increase in distances travelled world-wide and raised total urban transport energy use per capita. In the developing world, where cities are still at an early stage of transition toward motorization, the resultant increase in transport energy use represents merely the beginning of what promises to be an insatiable appetite for future transport energy consumption if past trends are anything to go by. The lack of internally consistent socio-economic, transport and energy data for cities in the developing world makes it very difficult to *accurately* predict future outcomes, particularly if one wishes to incorporate additional urban freight movements generated by increasing globalization.

The average trip distance in a developing city is *at least* twice as high in cities of the developed world, where people undertake around four trips per day on average. Cross-sectional and longitudinal travel survey data in the developing world suggests that the associated mean trip distance is about 7-8 kms with an average per person passenger kilometre travelled of 15 passenger-km per day. This is *only* about one-third of that observed in urban areas of the developed world. On this basis, on-going economic growth *may* triple the urban passenger kilometre travelled in the developing world, emphasizing the well known fact that greater affluence promotes additional daily urban trips and the length of such trips.

Unlike any other sector of the economy, transport almost entirely relies on oil based products which contain the highest energy content per unit volume of all fuels and the highest energy content per unit mass of all liquid fuels. While the benefits of petroleum products for use in transport systems have been widely appreciated, crude oil reserves are concentrated within only a few countries. Because of this concentration of oil reserves in the politically less stable Middle-Eastern economies, world oil prices have been since the 1970s (and look to continue to be) volatile. This volatility is especially unfavourable for oil-importing countries. The oil price hikes have, furthermore, particularly affected the developing countries because of both their lower average income levels, and generally, their growing levels of oil intensity. The large amounts of oil imports, furthermore, worsen the trade balance of such countries and diminish their hard currency reserves. Notwithstanding the above outlined circumstances, the geographic imbalance between the size of oil occurrences and population is much less dramatic if one takes into account the vast amount of resources of unconventional oil.

#### **4.3 Climate change and urban transport (4%)**

This section highlights the fact that while large cities consume a mere two per cent of the Earth's land mass, they generate an estimated 75 percent of the heat-trapping greenhouse gases that are released into our atmosphere. By virtue of the fact that cities are hubs of development, and urban

transport services/infrastructure are among the main drivers of urban and regional development, the urban transport sector *de facto* is a major determinant of global warming.

The discussion explains why/how valuating urban impacts on GHG emissions is a complex undertaking; a look at per capita output of GHG for example shows that population density actually pushes the per capita output of GHG *down* rather than up. This is a *very* significant finding both for urban development and transport planning. It can be explained by the dense traffic and congested thoroughfares which act as useful deterrents to extensive motor car use that encourage the use of other forms of transport, particularly public transport and non-motorized modes. The concentration of (dense) populations also provides a good urban tax base to finance mass transit systems better able to service such high densities efficiently and affordably.

There are different criteria available to measure and inventory emissions. The choice of one or other can considerably bias the final calculations on how big cities' contributions to GHG emissions are calculated. The proportion of GHGs generated in cities would, for example, be greater *if* emissions were assigned to the consumers. If this were done, the cities' contribution to global GHG emissions would raise to almost half of the total, as it would also include emissions from agriculture and deforestation.

Mitigation efforts seeks to slow (if possible reverse) the processes of climate change by lowering global GHG emissions. In the urban transport sector, mitigation technologies and practices include: more fuel efficient vehicles; hybrid vehicles; cleaner diesel vehicles bio-fuels; modal shifts from road transport to rail and public transport; measures to enhance the use of cycling, walking; land-use and transport planning. As regards to policy measures and instruments, options include: mandatory fuel economy, bio-fuel blending and CO<sub>2</sub> standards for road transport; taxes on vehicle purchase, registration, use and motor fuels, road and parking pricing; measures that influence mobility needs through land use regulations and infrastructure planning; and investment in attractive public transport facilities and non-motorized forms of transport. It is clear that the way climate change is framed *can* play an important role in local and global policy formulation and action. Mitigation and adaptation measures, furthermore, only become a local priority when the range and extent of climate change have been understood by local actors, especially when linked to issues already in the local agenda.

#### **4.4 Institutional and political support for urban transport (4%)**

This section explains that to deliver sustainable urban transport policies and plans there needs to be *sustainable institutions*. These are institutions that are sufficiently robust, empowered and resourced to be able to be able to oversee and influence on a sustained basis the planning, appraisal and delivery of sustainable urban transport initiatives. Well functioning institutions and a high level of political support are *essential* prerequisites for creating and maintaining good quality urban transport infrastructure and services.

While the practice of urban transport policy making and planning, both in developed and developing countries, essentially rests with institutions at the level of an urban area, it is government organisations at the national level that typically sets policy frameworks and thus significantly influences policies adopted at the city level. National government structures also influence the extent of institutional integration of modes in an urban area, as well as the institutional arrangements for the integration of urban transport with other sectors. Apart from the case of capital cities, national governments in developing nations have tended *not* to play an active role in urban transport policy making and planning, or to take on the roles they could play to assist municipal governments. In the case of China, India and Indonesia, this is despite the fact that all three national governments are responsible for the collection of the bulk of vehicle and

fuel taxes as well as user charges, and provide resources to municipal governments for the urban transport sector. World Bank experience suggests that national governments should, *as a minimum*: put in place the legal frameworks for urban transport that offer overall urban transport policy guidance, and provide the implementing regulations to enable sub-national governments to formulate policies for urban areas.

As regards other critical dimensions at the national level, the discussion addresses the following: policy guidance; policy implementation; technical guidance; and modal and functional integration. A major issue for urban transport policy making and planning at the national level for government is how responsibilities are assigned among the various agencies for different modes, and for other sectors, and how well these modes (or sectors) are integrated and/or coordinated with urban transport. In their different ways, the responsibilities for roads, public transport and land use are fragmented across different ministries. This creates silo thinking and silo follow-on actions, except perhaps at a senior level, making cross-sectoral policy making and planning extremely difficult.

As regards the local level, the section will address concerns regarding: accountability mechanisms; the power, vision and leadership of political leaders; roles and responsibilities and single level government for the urban area. Critical to the development of sustainable and integrated urban transport is whether the municipal government boundary covers (or extends beyond) the geographical limits of the urban area and *not* whether the urban area covers several municipalities.

#### **4.5 Fall-out from lack of strategic thinking (4%)**

This section presents the case that while everyone agrees that city transportation and urban land use are closely linked, that the distribution of human activities over urban land creates demand for travel carried by the transport system, and that the urban transport system in turn, has significant impacts on the shape of the future urban land use patterns. The *real controversy* and area in need of strategic thinking is over the viability of reaching greater sustainability through more urban planning and control of land use *or* reaching land use change through the restructuring of urban transport options or some combination of both.

It is noted that many cities in the developing world, especially Asia, have moved rapidly from possessing transport systems in which walking, non-motorised vehicles and rudimentary low-cost bus-based public transport systems catered for the majority of transport needs, to a situation where cars and motorcycles are now beginning to dominate. The impact of these developments in places has been the creation of what have been called “traffic-saturated bus cities and motor-cycle cities” or “traffic disaster cities.” These are outcome which differ from the wealthy cities, which may be classified as either “automobile dependent cities” or “modern transit cities. They are outcomes *not only* of decisions of individual consumers and private firms in their choice of transport mode for different trip purposes *but also* by government policy makers toward motor vehicle ownership/use, road building, urbanisation, suburbanisation and urban planning, traffic restraint and relative levels of investment in roads, public transport and non-motorised modes.

Recent evidence suggests that many lower income cities are becoming more like “traffic disaster cities” rather than “low-density automobile dependent cities” or “high density modern transit cities”. The case of Delhi comes to mind. This is a rapidly expanding mega-city experiencing rapid motorization in which motorcycle growth in ownership and use features greatly despite the relatively low average incomes of its residents. Similar conclusions may be drawn from cities in other developing countries, including those in China which have of late increasingly become a focus of global attention from those concerned with environmental implications of motor vehicles in urban areas. This country is now aggressively pursuing the development of what could see the

development of some of the biggest “automobile dependent cities” in the world. These unfortunate developments have arisen, as a result of the Communist party leadership having embraced motor car production as a pillar of its industrial economy with bicycles in cities as something to be literally and figuratively driven aside.

#### 4.6 Integrating urban land use planning with transport planning (4%)

This section suggests the battle of visions between the “American Dream” and less motor vehicle dependent visions and more sustainable urban development paradigms comes to the forefront in efforts to integrate urban land use planning and urban transport planning. This is so, it is argued, because one can broadly claim that conventional wisdom in urban planning has as one of its main goals the aim to *facilitate* affordable accessibility (or stem its decline) for all groups in urban areas rather than promote the mobility of a few, and that this should be done in such a manner as to also reduce global warming effluents and local pollutants, minimise the consumption of fossil fuels and limit the urbanization of land currently in critical life supporting non-urban roles. While some urban planners may disagree with the specific means of attaining these goals, they are largely shared by the profession world-wide.

Many local politicians from the developing world, however, are advised by specialist transport planners and engineers that are trained and educated with a very different ethos and tradition; a tradition much more wedded to the “economic growth above all” paradigm, pre-occupied with the short-term realities/pressures of needing to deliver enhanced efficiencies in urban transport operations that promise (at least temporarily) less congested and faster movement, particularly of the motorised kind. Putting aside the rhetoric, such parties remain unconvinced of the merits of the urban planner’s broader goals and the sustainable development agenda or are concerned at the pace that such measures can be introduced to avoid generating opposition from key vested interests and/or the electorate (where it counts).

It is clear, in other words, that the role of land use planning in this effort is subject to vigorous debate. On the one side, there is a highly committed belief that it is *essential*, at least for the long run, toward achievement of these goals, to forcefully limit the decentralization of urban development and to design the composition and densities of land uses in such a manner as to shorten trips, and encourage socially responsible travel modes. On the other side, there are those who believe that sprawl does *not* significantly raise transport or infrastructure costs, and does *not* significantly increase pollution or fuel consumption. Such parties claim that spatial decentralization is driven by worthy economic and life style advantages and *cannot* be significantly constrained by planning and that their position rests on an urban economics platform, and on generalizations from overall metropolitan patterns rather than composition of land uses at smaller scale emphasizing that air quality improvements can *only* be significantly achieved by transport technology improvements to reduce effluents and by vehicle use restrictions (such as congestion pricing). An important conclusion regarding the this debate is that it is *imperative* for all to understand that this difference of opinion about the role of land use in traffic mitigation is *not* a confrontation between those who care for the environment and those who do not. It is an argument about *how* to care for the environment.

**PART III: TOWARD AN APPROACH TO SUSTAINBLE URBAN TRANSPORT (34%)****Chapter 5: Urban movement, transport and environmental impacts****5.1 Defining one's terms (5%)**

This section explains that understanding and tackling environmental impacts of transport in cities world-wide is a relatively new challenge. With these have come major problems as the scale of impacts has grown and as more efforts have been made to better understand how to quantify and monetize them. Many of these environmental impacts have, furthermore, been poorly documented, especially in the developing world and in transition economies, while the extensive inter-connectivity and complexity of their inter-dependence have also often confounded us.

Taking environmental impacts of urban transport as - any form of change in the environment resulting (intentionally or unintentionally) from movement in our cities (especially mechanized movement) together with the production and operation of supporting infrastructure and related services together with the lifestyles they support and promote - we can readily appreciate that before exploring these impacts, we need first to more clearly define what is meant by the term "environment" in this context. In its purest definition, "environmental impacts" include those that intentionally alter the environment in a way that is advantageous to humans. Owing to the complexity of natural environmental functions, unintended impacts *also* occur which are often disadvantageous to human life (and to ecosystems) and that it is these negative impacts which most concern us. The real challenge here in dealing with the environmental impacts of urban transport is to look *beyond* the immediately apparent impacts to the broader impacts and their causes.

Of utmost importance is the need to differentiate between impacts on the 'natural' and 'built-up' environments. Urban transport significantly impacts on both and has environmental impacts that have local *and* global implications. The most immediately recognized impact of transportation – pollution – is characteristic of the 'brown agenda.' These targets problems associated with pollution and human health in built-up or previously built-up areas, whereas the 'green agenda' focuses on nature and the preservation of healthy, functioning ecosystems. Once it is recognized that the *full* impacts of urban transport apply to both agendas, distinguishing between natural and built environments in this way, it offers a helpful framework for considering impacts, particularly those associated with unrestrained motorization. The key distinction between the natural and built environments lies in the different ways the impacts are handled. Built-environments exist only because the natural environment was at one time massively impacted and transformed. Natural environments process the impacts, becoming altered by them, even though largely they retain their natural state by virtue of the fact that they function as an ecosystem. At the extreme, these natural environments can be destroyed. Each transportation mode has, in fact, its own associated environmental impacts. Their significance is dependant upon the intensity of the impacts they have as well as the ability of the environment to absorb them.

**5.2 Impacts on the natural environment (5%)**

Concentrating humankind as they do, urban areas impact the natural environment in key ways, converting nature into the built environment. This section examines how over time the transport systems servicing cities and their immediate environments have expanded the role of motor vehicles so much that road infrastructure have themselves become key controlling dimensions of urban and regional development. The transportation sector is the fastest-growing and apparently

most intractable source of carbon emissions (producing 21 per cent of the global energy-related total). This has arisen in part because the sector being among the most subsidized and centrally planned of the majority of the world's economies – at least for such favoured modes as road transport and aviation.

Road infrastructure developments also impact on the natural environment through their consumption of natural materials, energy extraction and use. They furthermore impact hydrological cycles and water quality, air pollution, as well as producing key secondary impacts such as the opening of land for development resulting in the fragmentation and loss of agricultural and natural areas. The section provides an insight into: material cycles and the motor vehicle; regional and global air pollution and greenhouse gases; watershed impacts; and consumption of agricultural land and impact on rural communities.

The discussion points out that foremost among the impacts of urbanization and related transport developments in the developing world and in cities in transition economies are impacts on land use in rural areas and the subsequent loss of agricultural and natural land areas. Urbanization, a phenomenon closely associated with urban sprawl, causes: increased fragmentation of natural habitats; a reduction in biodiversity; alteration of hydrological systems; and modifications of energy flow and nutrient cycling. Roads contribute much of these same impacts on biodiversity through the loss, fragmentation, disturbance and pollution of habitats. Because most cities have arisen in/near fertile areas, urbanization often transforms productive agricultural areas and ecosystems into built environments. China is a vivid illustration of this. The Chinese government's policy to promote the motor industry has led not only to extensive urbanization but through the transformation of nearby agricultural land into urban development has run headlong into China's policy of maintaining food self-sufficiency. The explosion of motorization in China and India – the two most populous countries on earth, together containing roughly one-third of humanity – occurs precisely where agricultural land is most needed. The implications of these developments are that food production needs to be undertaken more intensively elsewhere and that this is likely to entail increased inputs of energy through rising mechanization and the greater use of fertilizers. Since the agricultural lands lost are those nearest to urban areas, it also means food must travel farther to get to market, further increasing energy use.

### **5.3 Impacts on the built environment (5%)**

This section explains that given the dependency of urban built environments on their transport systems, and in turn, the growing dominance of these areas by influences of motorization, the growing externalities of this transport mode's dominance is beginning to openly and extensively provide evidence of the reversal of the fortunes associated with many aspects of the motorized 'American Dream' (turning sour). As the functioning of cities become more problematic, and their environmental quality and economic productivity simultaneously deteriorate, the poor documentation of these impacts in cities of the developing world becomes increasingly problematic for policy making and planning.

This section address the following concerns: Local air pollution and health - given that any city and national governments continue to permit the use of leaded petrol, despite the health hazards associated with its use and the consequences of impairing development of the human nervous system; Noise - noise in major cities has frequently produced measurements sufficient to cause permanent hearing loss. Traffic accidents and crashes - The World Health Organisation (WHO) predicts road traffic injuries will be the third leading cause of death and disability by 2020. Community severance and public space - the threat of injury by unrestrained motor vehicles in urban areas can lead to community severance. Many roads are rendered un-crossable by pedestrians, except at designated overpasses, which are both too few and too discouraging to road-crossing with the origins of such designs often having their heritage in cities of the developed

world. Highway planners employ the use of highway design to create social severance with the result that those without access to a motor vehicle, usually the majority, are physically and socially severed from this new world of urban mobility.

## **Chapter 6: The concept of sustainable urban transport**

### **6.1 Overall concept of sustainability (3%)**

This section explains that placing the numerous urban transport issues extensively discussed earlier into a context of sustainability – as any effort to arrive at a vision for sustainable urban transport must do – requires *at least* two things: a translation of the overall vision of sustainability into the global, national and urban development context, and through this, to the urban transport sector; and a decision on how best to strategically decouple urban transport development from the ‘economic growth above all else’ paradigm.

The operationalization of the concept of sustainability from its origins in the Brundtland Report to the urban and urban transport sectors has been a tortuous affair. 1992 saw sustainable development gain political credibility when the United Nations convened the Conference on Environment and Development in Rio de Janeiro and organized its principal themes around ‘environment and sustainable development.’ Sustainability then grew beyond environmental concerns during the 1990s, as the ‘three dimensions’ of environmental, economic, and social (or equity) came to the forefront with the concept now extended to include the political, institutional and governance dimension – a position advocated here.

In ‘purely scientific’ terms, sustainability may be seen as having to do with carrying capacities, biological processes and ecosystem functioning and whether the system sustains itself in time. The ‘mainstreaming’ of sustainable development has shadowed the growing recognition (and legitimating) of the climate change risk attributed to man-made greenhouse gas emissions. However, because sustainable development refers to human *development* and its impacts, it has been argued that its definition *ultimately* depends on our values. In other words: how we value future generations and what we leave to them; how we value ‘non-economic’ resources; and how we value the distribution of resources among current/future generations? We are also advised that it is prudent to differentiate between sustainability – as a concept, a vision, objectives towards which we hope to move – and sustainable development, the process that moves us towards sustainability.

### **6.2 Measuring sustainable development (3%)**

The discussion in this section reminds us that just as no single agreed operational definition of sustainability or sustainable development exists nor does any single means of measurement. An examination of various definitions and measures of sustainability follow which indicate that they range from macro-level, consolidated measures (typically in the some form of index) to multiple indicator frameworks that often aim to develop specific indicators in each of the sustainability ‘dimensions.’

This section also offers an overview of numerous key multi-indicator frameworks that seek to measure sustainability at different levels. Among these include: the United Nations’ 58 national indicators in the social, environmental, economic, and institutional dimension; the ‘Sustainable Seattle’ initiative’s 40 indicators at the urban level which features environment, population and resources, economy and culture and society dimensions; and the 52 site-specific indicators offered by Hemphill et al, categorised into: economy and work, resource use, buildings and land use, transport and mobility, and community benefits to measure the relative sustainability of urban

regeneration schemes. The problems encountered in attempting to measure sustainability with such indicators are examined which include problems of: data availability; non-matching problems in the compatibility of data; the need to capture information that reflects the complexity of system feedback; and interactions over time, and many more.

The multiple dimensions common to today's notions of sustainable development pose, a daunting interpretative challenge of how we judge the 'degree of sustainability' or its meaningful changes over time when we are forced to compare progress against numerous indicators of varying levels of importance, and measured in different units (including of time). Indexes developed along lines that identify '*weak sustainability perspectives*' as against '*strong sustainability perspectives*' are discussed, with the former assuming that the depletion of natural capital can be compensated for by other forms of capital. The opposite of this is an 'ecological footprint which is an index which seeks to convert consumption and waste production into an estimate of the biologically productive area needed to provide these functions. The 'ecological footprint' approach communicates the ecological 'cost' of human activity, however, it fails convey anything significant regarding the relative benefit of welfare-generating activities.

### 6.3 Operationalization of concept of sustainable urban transport (3%)

Some twenty years on from the Brundtland Report much rhetoric and some activism followed, with many governments, international development agencies and corporate firms alike promising to transform their policies and practices to meet sustainability aims and principles. In this section it is argued that in the transportation and city development fields, these promises were too often *not* honoured, with many infrastructure investment decisions continuing to be made largely on the basis of *realpolitik* for fear of places and economies missing out on global competitive forces.

The claim made here is that with some notable exceptions, this 'business as usual' (green washing) culture has been adopted by many, if not most, of the big global players of economic development, including agencies such as the World Bank and IMF which at the project level have essentially continued to view 'development' in terms of trickle-down economics with a heavy reliance on the market to lead the way ahead. Where sustainable development initiatives were introduced, with certain exceptions, these were often done at *too* modest a scale, too late and frequently at a pace that did not keep abreast with the speed of growth of the problems they were intended to address. In other words, notwithstanding the wealth of publications, government and consultancy reports, and conference papers on the topic of sustainability and urban transport, together with the associated passing rhetoric regarding the decoupling of unsustainable economic growth from urban transport planning practice, the step-change has just *not* materialised on any significant scale in either the developed or developing world.

While some progress has been made in operationalizing the concept of sustainability in the urban transport sector in some of the post-industrialised countries, such as France, Netherlands, Denmark and Sweden and in parts of Latin America, overall, the pace of significantly incorporating sustainability concerns into urban transportation developments world-wide do *not* sufficiently match the pace of the growth of problems generated by current transportation systems and urban transport planning practices. Rather, the major challenge is *how* to have governments and politicians break away from the rhetoric and *realpolitik* and invest more proactively into a future that is led by a concerted green programme funded on a significant scale. A programme of this kind needs to be undertaken with universities and industrial research establishments world-wide working collaboratively, offering a lead in new insights and technologies that promote actions which would enhance capacities to achieve more widespread sustainable outcomes for transportation and city development - both locally and globally.



#### 6.4 The devil is not only in the detail but the strategy (3%)

The section explains why the translation of aims of the sustainable development vision into the urban transport sector is one of the most complex and challenging aspects of urban transport policy making and planning; particularly if compared to the more straight forward/simplistic past planning practices of ‘predict and provide’ which underlie the traditional four-step urban transport planning process. The discussion alludes to the design rationality employed by traditional urban transport planning practice which is orientated toward finding the ‘single best’ solution. Whereas, what is required in developing sustainable urban transport responses to mobility challenges is an *extensive* dialogue about the concept of sustainability concerns, as well as the changing ideas about alternative visions for the future.

The argument is presented here that the incorporation of sustainability in the planning and management of urban transport requires the re-conceptualization of the relationship between the experts and society, and its principal stakeholders. This re-conceptualization, furthermore, needs to move *away* from the false premise that the designers of the policy making and planning processes are in a position to take up the central role in decision taking that is required to make the concept of sustainability work. It should *also* entail the decoupling of urban transportation planning practice from the hyper-mobility premise which assumes increased speeds and volumes of urban movement *automatically* translate into improved economic performance of cities and their regions. Finally, the re-conceptualization should look to simultaneously addressing *both* local and global implications (and trade-offs between the two) of proposed actions. This can *only* be done effectively if a strategic framework for sustainable development is employed.

The perceived role of the expert as *always* being influential is in reality more the exception than the rule, although in some developing countries (and within some international development agencies), the expert *can* have much greater influence than would normally be the case in countries of the developed world. In certain regards though, even national and local politicians play a less central role in molding outcomes as the *real* pressures are often market-driven and greatly (if not excessively) influenced by parties that have in the past been promoted by interests of the motor vehicle industry, including the oil and construction industries and suburban real estate interests capitalizing on trends of urban sprawl. These parties have a long history of successfully pressurising policy makers and politicians through special group lobbying (supported very often by strong media and advertising) that has made efforts to deliver more sustainable visions for urban transport most difficult to say the least. This is, incidentally, a global issue of Corporate Social Responsibility (CRS) – a concept which in the recent past has had a chequered history of credibility.

Notwithstanding the above, and the claimed slow progress made to date in meaningfully imbedding sustainability into new urban transport projects, there is evidence of a ‘new realism’ *slowly* emerging in certain quarters – both in the developing and developed world. This is in the form of a growing acknowledgement that cities *cannot* road-build their way out of traffic congestion without incurring major detrimental effects on sustainable development. This position has been articulated in a numerous publications and legislative initiatives for more than two decades now. This ‘new realism’ implicitly acknowledges the urgent need to abandon trend-planning as a basis for urban transport policy-making and planning, and instead, advocates the adoption of a strategic approach oriented towards a more sustainable vision, using urban transport as an *agent* of sustained change rather than as a tool of transport systems optimization that primarily services economic growth goals. Illustrations of urban transport projects that have sought to incorporate principles of sustainability in their planning and delivery are available.

## 6.5 Sustainable urban transport: principal challenges re-visited (3%)

This penultimate section argues that for any urban transport strategy to be effective sustainably, it *must* have a vision that goes way beyond the concerns of transport operations efficiency that looks to keeping motorised vehicles on the move and/or reducing traffic congestion. A sustainable urban transport strategy needs as a starting point a capability to differentiate between ‘manifestation’ and ‘root problems’ of urban transportation challenges both locally and globally so as to identify suitable strategic responses. Whereas, only two decades ago, urban transportation problems were principally seen as local municipal affairs, today the dramatic rise of motorised traffic in major cities of the developing world such as Mumbai and Beijing, has global resonance in New York and London given the widespread concern of its impact on the world’s climate change and oil consumption.

A useful quick reality-check of the main challenges that the operationalization of visions of sustainable urban transport must address is one that employs the following generic strategic areas of prioritization on the basis of which parties are invited to broadly assess an urban transport project’s contribution to sustainability. They include consideration of: *Sustainability, climate change and energy* - as it is clear here that a consensus is emerging globally that sustainable development and climate change, together with energy use, consumption and emission concerns, are the key challenges for urban transport; *Rapid urbanisation and motorization* - for the challenges in the integration of urban transport and urban land use planning are rendered more acute by the growing concerns over climate change and the need to find ways to reduce the amount of motorised travel; *Sustainable finance* – given the lessons on offer from the recent global financial crisis which introduced the concept of sustainability to the world of global finance – albeit rather belatedly. *Poverty alleviation and access to basic needs for the disadvantaged* – since it is increasingly acknowledged that affordable and physical access by the poor and other disadvantaged groups to health, education, employment, goods and other opportunities are among the most important enabling factors for overcoming poverty; *Road Safety* – in light of the fact that WHO forecasts suggest that if no action is taken, road trauma has the potential to become the third most important cause of death by 2020 and, therefore, also to be a major public health issue.

Last but not least there is the critical matter of *Institutions, politics and governance*. In seeking to contribute to all the above, what is less well understood is the *very critical* role of the institutional capacity in discharging the effective responses to the cited challenges. Successful contributions to planning and operationalizing the vision of sustainable urban transport relies on an institutional capacity that is sustained, competent, adequately resourced and well governed. These qualities are typically in short supply in most countries of the developing world with the result that capacity-building is of strategic importance globally and locally. Proposed important generic areas of capacity building include: the training of technical staff; the training of political leaders; facilitating the political/professional dialogue; knowing how to work with the private sector; undertaking South-south knowledge transfer and improving governance and accountability.

## Chapter 7: Concluding remarks (4%)

This concluding section presents the case that the adaptation of the concept of sustainability to urban transport poses two final sets of important points. The first is that the consensus about sustainable development - which at one time concealed many inter-cultural and inter-sectoral difficulties is now severely tested (and strained) and is thus badly in need of operationalization and adaptation to local needs (and contexts). The second is that the manner and extent sustainability is incorporated into urban transport policy making and planning is *ultimately* a political decision, with the result that the level of democracy and participation that exists in governments of the developing world (both at the national and local level) matters a great deal.

What is most problematic since the publication of the Brundtland Report is that the politics of defining sustainable development has *also* changed, especially in the closing two years of the first decade of the 21<sup>st</sup> century given the global challenges confronted during this period. The politics of defining sustainable development has altered from a dialogue - which led to a 'loosening-up' of the concept that was instrumental in achieving global endorsement - to a discourse, where the elaboration of the concept increasingly now requires attempts to make it more context-sensitive.

Many of the elaborations of visions of sustainable development for urban transport in the developing world have/will as a result become more controversial, *even* unclear. Among other things, they require greater discretionary interpretation at the local level and increased local and global stakeholder participation in the agreement of their scope. Not surprisingly, this more open dialogue approach has generated a great deal of friction as prevailing traditions in urban transport policy analysis and planning fail to take seriously the way in which cultural variables *can* often hinder the resolution of urban transport policy and planning controversies.

## Annex IV. HS-Net Annual Report (September 2008 – October 2009)

### Background

1. The Global Research Network on Human Settlements (HS-Net) was launched in 2004 primarily as a platform for dialogue and exchange between individuals, networks and institutions engaged in human settlements research. Its objectives were to
  - a. promote global dialogue, collaboration and exchange of information on human settlements conditions and trends and the implementation of the Habitat Agenda and the targets of the United Nations Millennium Development Goals (MDGs) on slums, water and sanitation;
  - b. strengthen partnerships with research institutions world wide for the preparation of UN-HABITAT's flagship report, the Global Report on Human Settlements;
  - c. channel expert advice and guidance to UN-HABITAT with regards to the preparation of the Global Report on Human Settlements;
  - d. contribute towards the improvement of the lives of the poor through the implementation of well-informed and more effective human settlements policies and strategies; and
  - e. build research capacity in human settlements issues through conferences, e-discussions, regional meetings and publications.
2. The key organs of the network consisted of the Secretariat and the Advisory Board. Composed of experienced researchers in the human settlements field representing the various geographical regions of the world, the Advisory Board's primary role was to advise UN-HABITAT on the substantive content and organization of its Global Report on Human Settlements. In addition, the Board also reviewed HS-Net publications, served as the selection committee for the UN-HABITAT Lecture Award and defined the strategic focus and activities of HS-Net in consultation with the Secretariat.
3. The Secretariat, based within the Policy Analysis Branch of UN-HABITAT, was responsible for the overall coordination of HS-Net's work including correspondence with and between members, events such as the annual Advisory Board meeting and UN-HABITAT Lecture Award ceremonies, HS-Net publications and recruitment of new members.
4. In addition, HS-Net had general network members composed of global and regional networks, institutions, as well as individuals involved in human settlements research. By the end of 2008, the number of general network members had reached 148. These members were encouraged to share information on human settlements research with each other and with the Secretariat. They were also able to access HS-Net publications, find and collaborate with researchers through the HS-Net database of Human Settlements Experts and engage in global dialogue on human settlements issues through HS-Net blog.
5. HS-Net sought to achieve the above objectives through the following mechanisms:
  - a. The Human Settlements Global Dialogue Series to publish cutting-edge policy oriented research in human settlements;
  - b. The UN-HABITAT Lecture Award to recognize outstanding and sustained contributions in the field of human settlements research annually on a regional basis;
  - c. The UN-HABITAT Lecture Award Series to publish the lectures delivered by winners of the UN-HABITAT Lecture Award;
  - d. The HS-Net Advisory Board to provide expert advice to UN-HABITAT on the substantive contents and organization of the Global Report on Human Settlements as well as the Human Settlements Global Dialogue Series and serve as the selection committee of the UN-HABITAT Lecture Award;

- e. The HS-Net website ([www.unhabitat.org/hs-net](http://www.unhabitat.org/hs-net)) to share information on human settlements trends and conditions;
- f. The HS-Net database of experts to share information on human settlements experts globally; and
- g. The HS-Net blog to enable members to engage in dialogue on key human settlements issues.

### Restructuring of HS-Net

6. In the 2008-2009 period, HS-Net underwent a major restructuring following an extensive assessment, by the Secretariat, of progress since its launch in 2004. This assessment was also informed by feedback and reviews from the members of the 2007-2009 HS-Net Advisory Board. The main conclusion of the assessment was that the HS-Net Secretariat was evidently understaffed and under resourced with the following implications:
  - a. HS-Net was unable to accomplish some of its major objectives especially with regards to the sharing of information and dialogue on human settlements issues. The inability of the HS-Net Blog to generate online dialogue and exchange between members was one of the manifestations of this.
  - b. The HS-Net website had failed to become a reference point for human settlements information and dialogue thereby minimizing the incentive to join the network. Indeed, over a period of 4 years, HS-Net managed to attract a relatively small number of members and its outreach and visibility remained limited.
  - c. Few papers were submitted for publication under the Human Settlements Global Dialogue Series. Moreover, the management of the publication process proved to be time-consuming and beyond the capacity of the Secretariat to handle efficiently.
  - d. The UN-HABITAT Lecture Award ceremony had limited visibility while the quality of lectures delivered by Award winners came under scrutiny.
  - e. The Secretariat was unable to disseminate the HS-Net publications, including the Human Settlements Global Dialogue Series and the UN-HABITAT Lecture Award Series, widely.
7. The assessment also indicated that the work of the HS-Net Advisory Board to the preparation of the Global Report on Human Settlements and the UN-HABITAT Lecture Award series had been invaluable.
8. In view of the above results of the assessment, and with a view to setting more realistic objectives and parameters, HS-Net was restructured as follows:

Focus	Changes
Objective and scope of HS-Net	The objective of the network and its scope of activities were narrowed down and tied directly to the Global Report on Human Settlements. Accordingly, HS-Net's main objective now is to share human settlements information primarily through Global Report on Human Settlements. Therefore, HS-Net's focus is restricted to the biennial themes of the Global Report on Human Settlements.
Membership	The membership application process requiring applicants to complete and submit membership application forms was discontinued.  Instead, interested individuals, organisations and networks simply need to send an email to the Secretariat indicating their

Focus	Changes
Mailing list	<p data-bbox="624 315 1203 344">interest to be included in the HS-Net mailing list.</p> <p data-bbox="624 360 1353 427">The HS-Net Secretariat is preparing a mailing list of relevant individuals, organisations and networks.</p> <p data-bbox="624 443 1353 510">In addition, the Secretariat will include others individuals and institutions in the mailing list drawing on the following:</p> <ul data-bbox="624 526 1353 728" style="list-style-type: none"> <li data-bbox="624 526 1315 555">▪ HS-Net members that joined prior to the restructuring;</li> <li data-bbox="624 571 1315 600">▪ experts that have worked with the HS-Net Secretariat;</li> <li data-bbox="624 616 1315 645">▪ past and current HS-Net advisory Board members; and</li> <li data-bbox="624 660 1299 728">▪ list of urban planning schools compiled as part of the preparatory process of the GRHS 2009.</li> </ul> <p data-bbox="624 743 1171 772">So far, the mailing list contains 650 recipients.</p> <p data-bbox="624 788 1315 880">Recipients will have the option of being removed from the mailing list as not all will have expressed an interest to be included.</p>
Global Report on Human Settlements E-Newsletter	<ul data-bbox="624 902 1362 1048" style="list-style-type: none"> <li data-bbox="624 902 1362 969">▪ The e-newsletter is intended to publicise the GRHS and its contents.</li> <li data-bbox="624 985 1299 1048">▪ The Secretariat will prepare and send this through the mailing list on a quarterly basis.</li> </ul>
The Human Settlements Dialogue Series	<p data-bbox="624 1070 1353 1137">The series will be phased out at the end of 2009 but published papers will continue to be available online.</p> <p data-bbox="624 1137 1251 1160"><a href="http://www.unhabitat.org/categories.asp?catid=328">http://www.unhabitat.org/categories.asp?catid=328</a></p>
The UN-HABITAT Lecture Award	<p data-bbox="624 1182 1378 1305">The Award has been renamed ‘The UN-HABITAT Cities Lecture’ and the following changes have been effected so as to improve its visibility and outreach as well as the quality of lectures:</p> <ul data-bbox="624 1328 1378 2056" style="list-style-type: none"> <li data-bbox="624 1328 1378 1496">▪ while the lecture remains focused on recognizing outstanding and sustained contributions to the human settlements field , it more explicitly focuses on prominent personalities with an ability to deliver an exciting and stimulating lecture</li> <li data-bbox="624 1518 1378 1585">▪ the lecture is no longer limited to specific world regions but open to candidates globally</li> <li data-bbox="624 1608 1378 1731">▪ the lecture will no longer be held annually but rather biennially during sessions of the World Urban Forum (i.e. the 2010 lecture to take place during the fifth session of the World Urban Forum, 22-26 March, Rio de Janeiro)</li> <li data-bbox="624 1753 1378 1854">▪ the list of documents required for the nomination of a candidate has been reduced to a CV and statement of support</li> <li data-bbox="624 1877 1378 1944">▪ the HS-Net Advisory Board remains the selection committee for the award</li> <li data-bbox="624 1966 1378 2056">▪ the UN-HABITAT Lecture Award series publication will be published electronically only thereby enabling wider dissemination</li> </ul>

Focus	Changes
HS-Net website ( <a href="http://www.unhabitat.org/hs-net">www.unhabitat.org/hs-net</a> )	The website been updated to reflect the revised and narrower focus of HS-Net on the Global Report on Human Settlements. Accordingly, information on the UN-HABITAT Lecture Award and the Human Settlements Global Dialogue Series has been moved from the HS-Net website to that of the Policy Analysis Branch ( <a href="http://www.unhabitat.org/categories.asp?catid=328">http://www.unhabitat.org/categories.asp?catid=328</a> )
HS-Net database of experts	To be discontinued
HS-Net Blog	To be discontinued

### 2008-2009 Work plan: Progress

9. During the fifth meeting of the HS-Net Advisory Board<sup>1</sup>, a calendar of activities to guide the work of the network during the 2008-2009 period was presented. While progress made with all activities planned for execution during this period is indicated in Annex 1 to this report, the key achievements are outlined below.

#### 2010 UN-HABITAT Cities Lecture

10. So far five nominations have been received.
11. Nominations for the 2010 UN-HABITAT Cities Lecture were opened in August 2009. The deadline for nominations is 30 October 2009 but this may have to be extended since only a few nominations have been received to date.
12. The selection committee (HS-Net Advisory Board) is expected to complete its review and selection by end of December 2009.
13. The Lecture Award ceremony is expected to take place on Tuesday 23 March, 2010 during the fifth session of the World Urban Forum in Rio de Janeiro, Brazil.

#### Human Settlements Global Dialogue Series

14. An additional two issues of the Human Settlements Global Dialogue series were published since September 2008:
  - a. No. 4: Governance reform from below: Multilevel politics and the 'New Deal' campaign in Toronto, Canada, by Martin Horak
  - b. No.5: Twenty Years of Transition: The Evolution of Urban Planning in Eastern Europe and the Former Soviet Union, 1989–2009, by Sonia Hirt and Kiril Stanilov

#### Global Report on Human Settlements 2009: Planning Sustainable Cities

15. The Global Report on Human Settlements 2009 – Planning Sustainable Cities (including an Abridged Edition) was launched globally on this year's World Habitat Day (5 October 2009). The main launch took place in Washington DC with parallel launches world-wide through UN-HABITAT's regional and liaison office, Habitat Programme Managers and other partners including HS-Net Advisory Board members.
16. The key findings and messages of the report and the Abridged version are already available online ([www.unhabitat.org/grhs](http://www.unhabitat.org/grhs)) while the full report will be available online from January 2010 onwards.

<sup>1</sup> 24 - 26 September, 2008, Newcastle University, Newcastle, UK

Global Report on Human Settlements 2011: Cities and Climate Change

17. First drafts of all seven chapters of the Global Report on Human Settlements 2011 have been submitted and will be reviewed during the 6<sup>th</sup> HS-Net Advisory Board meeting in Mombasa, Kenya (19-21 October, 2009).
18. 12 case studies have been commissioned to further enrich the review of trends and policies across the report. Four of these have been finalised and are ready for posting at the GRHS website; drafts of another seven are being reviewed and the last is yet to be submitted.
19. A background paper on “Gender and Climate Change and Cities” was commissioned and will be reviewed during the 6<sup>th</sup> HS-Net Advisory Board meeting in Mombasa, Kenya (19-21 October, 2009).
20. The schedule for the preparation of the GRHS 2011 after the 6<sup>th</sup> HS-Net Advisory Board meeting in Mombasa is as follows:
  - a. Comments from the HS-Net Advisory Board, UN-HABITAT and other experts on the first draft chapters will be consolidated and sent to authors by the end of November 2009.
  - b. Authors are expected to undertake all revisions and submit second draft chapters to UN-HABITAT by 31 March 2010.
  - c. Second draft chapters will be reviewed by the HS-Net Advisory Board, UN-HABITAT and other experts and any final queries sent to authors by the end of May 2010.
  - d. Authors are expected to undertake final revisions and submit final draft chapters to UN-HABITAT by the end of June 2010.
  - e. The final draft for the GRHS 2011 is expected to be submitted to the publisher by 1 October 2010 and that the report (including an Abridged Edition) will be launched during the 23rd session of the Governing Council (11–15 April 2011).

Global Report on Human Settlements 2013: Sustainable Urban Transport

21. First drafts of an Issues Paper on ‘Sustainable Urban Transport’ and an outline for the GRHS 2013 was received in mid-15 September 2009 and will be reviewed during the 6<sup>th</sup> HS-Net Advisory Board meeting in Mombasa, Kenya (19-21 October, 2009).
22. The schedule for the preparation of the GRHS 2011 after the 6<sup>th</sup> HS-Net Advisory Board meeting in Mombasa is as follows:
  - a. The outline for the GRHS 2011 will be finalised by the end of April 2010.
  - b. Consultants will be recruited to start preparing chapters for the GRHS 2013 by mid-2010.
  - c. The final draft for the GRHS 2013 will be submitted to the publisher by 1 October 2012 and the report (including an Abridged Edition) will be launched at the 24th session of the Governing Council in 2013.



## Annual Report Annex 1: HS-NET Calendar of Activities 2008–2009 — Progress

ACTIVITY		MILESTONES	PROGRESS
<b>HS-Net</b>	Network membership drive	(1) Secretariat and Advisory Board to continue to invite individuals, institutions and networks to join HS-Net.  (2) Quarterly issues of 'HS-Net' Alert to continue to be sent to members.  (3) HS-Net publications (of 2007) disseminated amongst target institutions and associations by 1 December 2008. Additional publications also disseminated upon completion.	Due the changes to the objective, membership and publications of HS-Net, the milestones were no longer applicable.
	6 <sup>th</sup> HS-Net Advisory Board Meeting	Meeting held before end November 2009.	6 <sup>th</sup> HS-Net Board meeting, 19-21 October, Mombasa, Kenya.
<b>Human Settlements Global Dialogue Series</b>	Human Settlements Global Dialogue Series	(1) At least four additional papers published by October 2009 and posted at the HS-Net website.  (2) Ongoing call for submissions.	(1) An additional two papers were published since September 2008.  (2) The call for submissions was discontinued given that the paper will be phased at the end of 2009.
	<b>GRHS 2007: Enhancing Urban Safety and Security</b>	Abridged edition	3 separate volumes published by 3 October 2008.
	Case studies	All case studies posted at the UN-HABITAT website by 30 November 2008.	Electronic versions of 14 case studies prepared for the GRHS 2007 and posted at the GRHS website while 11 case studies have yet to be finalized.
<b>GRHS 2009: Revisiting Urban Planning</b>	Review of first draft chapters	First draft chapters reviewed by UN-HABITAT, HS-Net Advisory Board and experts and consolidated comments sent to authors by 13 October 2008.	Consolidated comments sent in October 2008.
	Second draft chapters	Submitted by authors by 30 November 2008.	Submitted by authors from December 2008 to January 2009.

ACTIVITY	MILESTONES	PROGRESS
Review of second draft chapters	Second draft chapters reviewed by UN-HABITAT, HS-Net Advisory Board and experts and consolidated comments sent to authors by 1 January 2009.	Consolidated comments sent to authors in January 2009.
Final draft chapters	Submitted to UN-HABITAT by authors by 20 January 2009.	Submitted by end February 2009.
Publication of report	By end August 2009.	Published by end July 2009.
Publication of abridged edition.	By end August 2009.	Published by end July 2009.
Launching of report	During World Habitat Day celebrations on 5 October 2009.	The GRHS 2009 was launched globally on 5 October 2009.
Case studies	Final reports posted online by 5 October 2009.	18 case studies have been finalized and posted at the GRHS website
Regional studies	Final reports posted online by 5 October 2009.	6 regional studies have been finalized and posted at the GRHS website. The remaining 2 regional studies and 1 thematic study (on gender and urban planning) are currently being finalized.
<b>GRHS 2011: Cities and Climate Change</b>	Outline	To be finalised by UN-HABITAT by 15 December 2008.
	Team of authors	Team of authors assembled by 1 February 2009.
	Case studies	Case studies completed by 30 June 2009.
	Regional studies	Reports completed by 30 June 2009.
	First draft chapters	Submitted to UN-HABITAT by authors by 31 July 2009.
	Review of first draft chapters	Drafts reviewed by UN-HABITAT, HS-Net Advisory Board and other experts and consolidated comments sent to authors by 31 October 2009.
		Finalised by January 2009.
		Authors commenced work officially on 1 May 2009. This was due to significant delays in the processing of contracts and release of funds.
		Drafts of all except one case study received. Final drafts to be finalised by January 2010.
		It was decided that no regional studies would be commissioned for the report.
		The 1 <sup>st</sup> draft chapters were submitted in August 2009.
		Consolidated comments will be sent to authors by end of November 2009 since the 6th HS-Net Advisory Board meeting takes place from 19-21 October.

ACTIVITY		MILESTONES	PROGRESS
GRHS 2013: Urban Mobility and Transport	Selection of theme	Theme selected in June 2008.	The 2013 report is provisionally titled 'Sustainable Urban Transport'.
	Detailed Outline	Draft outline of the report ready by end April 2010.	In progress. A draft outline will be reviewed during the 6th HS-Net Advisory Board meeting takes place from 19-21 October.
2006 & 2007 UN- HABITAT Lecture Awards	Dissemination	DVD and corresponding issue of UN-HABITAT Lecture Award disseminated to target institutions by 1 December 2008.	Lecture Award publication sent to the 2006 and 2007 winners for dissemination. Also disseminated during the 4 <sup>th</sup> session of the World Urban Forum in Nanjing, November 2008.
2008 UN- HABITAT Lecture Award	Dissemination	(1) Lecture published for dissemination during WUF IV, 3-6 November 2008.	(1) Done.
		(2) DVD finalized and duplicated by 31 January 2009.	(2) DVD has yet to be finalised due to technical difficulties within UN-HABITAT's audio-visual unit. The DVD will be finalised by end of November 2009.
		(3) DVD sent to target institutions by 28 February 2009.	(3) Pending completion of the DVD.
2009 UN- HABITAT Lecture Award	Nominations	(1) Nominations open from 15 November 2008 to 15 March 2009.	(1) Nominations opened in August 2009. Delayed opening of nominations due to the changes to the structure and organization of the Lecture Award.
		(2) Nominations to be reviewed from 15 March to 15 May 2009	(2) Nominations will be reviewed before end of December 2009.
[Revised to 2010 UN- HABITAT Cities Lecture)	Announcement	Winner to be announced by July 2009.	A winner will be announced in January 2009.
	Ceremony	Lecture Award Ceremony to take place during end November 2009.	Lecture Award ceremony will take place during WUF 5, Rio de Janeiro, 22-26 March 2009.

## Annual Report Annex 2: HS-NET Calendar of Activities 2009–2011

ACTIVITY		MILESTONES
HS-Net	Mailing list	(1) Secretariat to finalise the HS-Net mailing list. (2) Secretariat to send quarterly e-newsletters on the Global Report on Human Settlements through the mailing list.
	7 <sup>th</sup> HS-Net Advisory Board Meeting	Meeting held by end of February 2011.
2010 UN-HABITAT Cities Lecture	Dissemination	(1) Lecture Award ceremony held during WUF 5, Rio de Janeiro, 22-16 March 2010 (2) Lecture published electronically for dissemination by WUF 5, Rio de Janeiro, 22-16 March 2010 (3) DVD of Lecture finalized by June 2010
	Review of first draft chapters	First draft chapters reviewed by UN-HABITAT, HS-Net Advisory Board and experts and consolidated comments sent to authors by end November 2009.
	Second draft chapters	Submitted to UN-HABITAT by authors by 31 March 2010.
GRHS 2011: Cities and Climate Change	Review of second draft chapters	Second draft chapters reviewed by UN-HABITAT, HS-Net Advisory Board and experts and consolidated comments sent to authors by end May 2010.
	Launching of report	During the 23 <sup>rd</sup> session of UN-HABITAT's Governing Council (11-15 April, 2011).
	Case studies	Final reports posted online by end April 2011.
	Outline	To be finalised by UN-HABITAT by end March 2010.
GRHS 2013: Sustainable Urban Transport	Team of authors	Team of authors to begin work by end August 2010.
	First draft chapters	Submitted to UN-HABITAT by authors by end August 2011.
	Review of first draft chapters	Drafts reviewed by UN-HABITAT, HS-Net Advisory Board and other experts and consolidated comments sent to authors by end December 2011.
GRHS 2015	Selection of theme	Theme selected by end January 2011.
	Detailed Outline	Draft outline of the report ready by end September 2011.