



Draft Scenario Narratives Boston Sustainability Project

**Tellus Institute
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The following are brief narratives that describe the three main scenarios we are developing for our EPA-sponsored Boston Sustainability Project. Note that these are **not** predictions or forecasts of the future, but are rather freely developed images of three different views of the Boston region in the year 2050. The written narratives have quantitative counterparts that were developed using PolesStar, an adaptable computer-based accounting system for keeping tracking different social and environmental drivers and indicators. The study area for all three scenarios comprises the 101 communities in the Boston region served by the Metropolitan Area Planning Council (MAPC). The visions presented are assumed to describe the area in the year 2050.

Business-As-Usual or Reference Scenario

In the Business-As-Usual (BAU) scenario we assume that current conditions and recent trends in the Boston region continue, with no major policy changes, surprises or discontinuities. The dominant values and forces shaping the region — primacy of markets, increasing land conversions for development, reliance on fossil fuels and auto-dependency — remain intact. The “good life” and the American Dream are still defined by levels of consumption and acquisition of property, vehicles, and other things. Promotion of economic growth is the unquestioned driving force underlying a range of policies on housing and commercial development, taxes, energy and transportation. GDP per capita increases, while inequalities in income, as well as access to health care, education, and housing, continue to grow. The region’s population is increasingly diverse, but racial and ethnic tensions persist.

The region’s population grows modestly, primarily in the outer suburbs, while persons per household continue to decline and average size of dwellings increases. Poverty persists and is increasingly concentrated in certain sections of the urban core. Average commuting distances and times continue to increase. While regional planning continues to take place, largely in an advisory mode, land-use decision-making remains at the local level with minimal inter-municipal/regional cooperation.

The Boston region becomes ever more dependent on distant sources for food, lumber and other natural resources, increasing environmental pressures outside the region. Though there are efficiency gains, overall consumption of energy, water and other resources continue to grow. Despite the region’s apparent commitment to the goals of the MA Climate Protection Plan, overall CO₂ emissions continue to rise and no major new policy initiatives to address climate change are implemented.

Policy Reform Scenario

In the Policy Reform Scenario, residents and policymakers recognize many of the negative consequences of current trends and policies concerning resource use, the environment, economic activity, and social conditions. While most of the dominant values shaping the region remain unchallenged, concerted government efforts are focused on addressing affordable housing needs, improving access to health care, reducing sprawl and congestion, promoting adoption of new technologies, and improving environmental performance/conditions including achieving the greenhouse gas reductions called for in the MA Climate Protection Plan. For example, revised land use and transport policies and practices are implemented consistent with the principles of mixed-use and transit oriented development in order to encourage a mix of residences, offices and commercial activities within walkable/bikeable distances from each other and from transit stations. To the extent that technological development, tax policies, and new government investments are able to address some of the problems in the Boston region, efforts are successful in improving social and environmental conditions. For instance, access to health care and poverty reduction through job creation in the social sector, and significant reductions in greenhouse gas emissions through improved technology in the environment sector are important outcomes in this scenario.

However, the overall trends toward sprawling development and global resource depletion persist and the reductions in greenhouse gas emissions, while significant, are not sufficient to meet long-term climate stabilization targets. Similarly, despite some reductions in inequality, there are few improvements in social relations across class and ethnic groups, and little or no change in the quality of life.

Deep Change Scenario

The Deep Change Scenario posits transformational change in the Boston region. Importantly, through widespread education and organizing efforts led by civil society, residents, governments and NGOs in the region recognize their global connections and responsibilities. This new awareness about the imperatives and possibilities of transformative change towards sustainability with global responsibility contributes to a fundamental shift in values and a redefinition of priorities from economic growth and consumption to quality of life and well-being. A vision of a sustainable region in a sustainable world with a strong sense of community and human solidarity is broadly adopted. As such, there is a recognition that current lifestyles and consumption patterns are not contributing to the well-being of residents in the region and must be altered drastically to reduce resource consumption and the burning of fossil fuels by 75% or more. Equally, there is a growing recognition that a far better quality of life could be achieved by working and consuming less, living in more compact and integrated communities, and yet feeling and acting in ways that are more connected to the world beyond.

A broad commitment to social equality and environmental quality drives many of the changes in this scenario, so that disparities in income and access to health and education are addressed early on. The Boston metropolitan region becomes a leading cultural and economic capital, widely recognized for its environmental leadership. Regional governance structures with real decision-making powers for land use and watershed management are established. Zoning laws throughout the region are updated to encourage appropriate density levels and mixed-use development, as well as smaller housing units. Motivated by citizen demands and changing lifestyles, these initiatives foster

rebuilding of infrastructure, decreased car use, increased public transit and other alternative modes of transportation, and an increased number of citizens living close to work, school, and recreation.

Green building practices are institutionalized throughout the region through modified building codes and other measures. Moreover, the links between development in the core and preservation of open space have been widely recognized and there are strong incentives in place to build and renovate buildings in already developed areas, and disincentives for greenfield development.

The long-term goals of the MA Climate Protection Plan are aggressively pursued, reducing GHG emissions in the region from transportation and other sources by nearly 80% relative to levels in 2000. Major shifts in investment from roadways to public transit result in extended subway, commuter rail and/or bus service throughout the region and enhanced convenience. Alternative energy sources — solar, wind, geothermal — supply the vast majority of the region’s energy needs, either directly or through the production of hydrogen. In addition, significant investments are made in carbon sequestration projects within the region and outside it to reduce net greenhouse gas emissions considerably.

Recognizing the enormous land, water and other resources required for meat production and the impacts this has in other locations, residents of the region significantly reduce meat consumption. Moreover, in order to enhance local food production, thereby minimizing transportation costs and emissions and improving freshness/quality, much of the green space opened up due to increased density and transit-oriented development is used for community gardens, greenhouses and farms. Crops are selected according to heirloom varieties that have traditionally fared well in New England soil and climate conditions, minimizing the need for chemical inputs. An emphasis is placed on “closing loops” by composting food and agricultural waste and returning it to the soil.

Note that many of the changes contemplated in the Deep Change Scenario would likely require broader changes on the state or national level, while others the Boston region could pursue on its own.