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Working Draft

**SUSTAINABLE CHARTER CITIES: THE DEVELOPMENT SOLUTION TO ENVIRONMENTAL
PROBLEMS**

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INTRODUCTION

I was driving home from work on a beautiful Vermont summer night in 2009. I left the office at seven o'clock (earlier than my usual departure time) and was looking forward to some quality time with my wife and six-month-old son. I had to work late several nights that month and had missed putting him to bed. As I was thinking about my family, NPR's "The World" played in the background, and soon one of the stories caught my attention. The program hosts interviewed two physicians who recently travelled to refugee camps located near the Chad-Sudan border. One of the physicians recalled a story that a woman had related to her during the trip. Janjawid¹ had come to the woman's village and ordered every woman with a baby wrapped to her back to show the baby to the militiamen. If the child was a boy, they killed him on the spot. If the child was a girl, they threw her on the ground. If the baby survived the fall, the Janjawid allowed her mother to pick her up. The woman had a baby girl who survived. Her grandmother was carrying the woman's son. When the grandmother refused to show the baby, the militiamen killed them both.²

This story resonated with me unlike any other account of humanitarian tragedy I have heard before. I was shocked thinking that the boy who was killed could have been the same age as my son. I was frustrated with the fact that we, a country of immense military and economic power, are letting these atrocious acts happen. I was mad at myself for not doing more to stop this awful injustice. I came home agitated. I was looking at my son and could not stop thinking about that boy, his grandmother, and his mom, who witnessed the massacre. Later that night I shared the story with my wife. She had the same reaction of shock, frustration, and anger. We were both deeply impacted.

We stayed up late that night, talking about Darfur and other humanitarian conflicts. We talked about innocent lives that are lost or irreparably damaged. We talked about the despair that these tragedies bring and how international relief efforts cannot reach every person affected. The next night, armed with a flip chart and markers, we started brainstorming. After several nights, Social Evolution Africa (SEA) was born. We envisioned SEA as an opt-in community located on privately owned or leased land in a relatively safe African country with strong ties with the Western world.³ SEA would be open to the neediest refugees, predominately women with children who have the biggest desire to leave the refugee camp limbo. SEA would be based on a cooperative model with the members receiving compensation according to their labor contribution to the community. The community would be premised on the concept of sustainability, initially through the practice of sustainable agriculture and expanding into other sectors as the community grew. We thought that initial funding would come in the form of grants and donations, but eventually SEA would be able to stand on its own. We put “imported” governance – rules and enforcement mechanisms – as the most important element of our concept. We thought that a group of international managers whose powers, decisions, and compensation would be 100% transparent to the entire world would run SEA until evidence proved that SEA members were ready to run it themselves.

It was perhaps overly ambitious for us to come up with a viable concept while lacking substantial international development experience and not having done the necessary research. However, we were not

completely naïve. We thought of many challenges, ranging from lack of funds to the prospect of fighting with the host country's government over the autonomy of the community. Having realized that our idea needed more research, refinement, and, most importantly, the right opportunity, we decided to postpone it.

When my wife and I were contemplating SEA and the idea of imported governance, we were completely unaware that Stanford economist Paul Romer was actively shopping the same concept to any developing country leader “who would grant him an audience.”⁴ Almost a year after our brainstorming sessions, *The Atlantic* published an article with a provoking title: “The Politically Incorrect Guide to Ending Poverty.” The article described Romer's theory of “charter cities” and, to some extent, validated imported governance as the core principle of our concept. As I was reading the article, however, I quickly realized that Romer saw poverty reduction as the main application of his theory. We, on the other hand, saw SEA not only as an escape route from the horrors of war and the despair of refugee camps, but also as a model for sustainable development, a vehicle for personal transformation, and a tool for social evolution. This distinction made me wonder whether Romer's charter cities can serve as a *form* for achieving environmental and social goals, including the ones that my wife and I envisioned for SEA.

I set this question as the central goal of this paper. In the first section, I “dissect” the charter cities theory and take a look at its critiques. In the second section, I examine the extent to which the concepts of rule of law, development, and environment can work together. In the third section, I draw a sketch of sustainable charter cities by merging the form of Romer's theory and the substance of sustainable development.

I. THE CHARTER CITY THEORY DISSECTED

The concept of a charter city is far from new. In fact, there are several good examples of charter cities throughout history. From medieval Lubeck, Rostock, and Riga⁵ to modern-era Tianjin, Shanghai, and

Guangzhou in China, charter cities have been impressive examples of reduced poverty, increased prosperity, and rapid economic growth.⁶ What does seem to be new is the theoretical explanation of their success.

The charter city theory is built on Romer's "New Growth Theory" that, according to many, revolutionized modern economic thought.⁷ New Growth Theory places ideas and technological progress as the cornerstone of economic growth.⁸ The theory, described in two economic papers titled "Increasing Returns and Long-Run Growth" and "Endogenous Technological Change," dispelled the notion that economic growth is premised exclusively on addition of capital and labor.⁹ Romer concluded that the rate of technological change is sensitive to the rate of interest.¹⁰ He further wrote that "a subsidy to physical capital accumulation may be a very poor substitute for direct subsidies that increase the incentive to undertake research."¹¹ The second-best policy option, according to Romer, would be "to subsidize the accumulation of total human capital."¹²

One of the definite lessons learned from the modern era is that new technologies raise the quality of life at an unprecedentedly fast rate.¹³ According to Romer, this phenomenon is largely due to the fact that innovations, unlike scarce objects, can be shared among many people.¹⁴ Romer posits that "[g]rowth speeds up when we can trade ideas with a larger number of people."¹⁵ He thus emphasizes the importance of international trade as a mechanism for sharing ideas, as well as cites as places where people can share them.¹⁶ Hence, Romer thinks that technological innovation is the fastest and most effective way to speed up economic growth and pull billions of people out of poverty.

However, we do not need to go through the piles of economic data to see that the Internet, iPods, and solar panels did not make significant differences for the lives of the majority of Ethiopians, Congolese, and Haitians. In 2004, 986 million people lived on less than \$1 a day.¹⁷ The problem, according to Romer, is that new technologies require new rules and, while copying the technologies, people seldom copy rules.¹⁸

He sums up his point in the following paraphrase of a well-known parable: “If you give someone a fish, you feed them for a day; if you teach someone to fish, you destroy another aquatic ecosystem.”¹⁹

Romer also categorizes rules as “ideas.”²⁰ In the paraphrased parable, ideas that make fishing sustainable are “rules.” He pairs a “rule” with a technological innovation. Examples of such symbiotic relationships include invention of the automobile and adoption of traffic rules, departure from the hunter-gatherer economy and the concept of property ownership. In the fishing example, the technology and rule are nets and individual tradable rights allocated among the fishermen who use the fishery.²¹ Romer’s rules include legal norms (*e.g.* traffic rules) and social norms (*e.g.* general rejection of spitting on the street).²²

“Meta-rules” or rules for changing the rules is the next element of the charter city theory.²³ Meta-rules ensure that the rules do not lag behind technological progress. In a broad sense, meta-rules essentially are political systems. In a narrow sense, meta-rules are the laws governing the legislative and rulemaking process. In a representative democracy, voters usually elect decision-makers, thereby delegating their right to change the rules. However, sometimes voters change rules directly through a referendum. In an authoritarian society, a “wise” executive or a group of executives is in charge of matching technological ideas with appropriate rules.²⁴ For an example of meta-rules in their narrow meaning, Romer uses the traffic congestion initiative in Sweden where voters had a seven-month try-out period before actually voting on it.²⁵

The third structural block of the charter city theory is its “opt in” nature. Romer draws parallels between changes in companies’ policies, resulting in customers “opting in” to company products, and Hong Kong, where ethnic Chinese opted to stay and be governed by the British.²⁶ For example, because of the success of Apple’s personal computers, IBM entered this market as well.²⁷ Similarly, Hong Kong’s success prompted the Chinese government to create a special economic zone in Shenzhen and adopt many similar to Hong Kong’s laws and regulations.²⁸

In practical terms, Romer's idea comes down to the following. He proposes that developing countries designate uninhibited plots of land along their coastlines to host charter cities.²⁹ Such charter cities would have the same population (10 million) and population density as Hong Kong.³⁰ The city will adopt a set of "rules" that are similar to the rules of the city or country after which it is modeled.³¹ It will enjoy a fair amount of autonomy from the central government. The city will be open to virtually anyone, which would eliminate any claims of coercion or lack of consensus.³² Finally, the city will be governed by an independent manager or managers with strong executive powers and wide discretion.³³ However, the city government will be accountable to the elected officials.³⁴ Finally, to boost the city's credibility, Romer proposes that the developing country to enter into a partnership with a developed country and appoint administrators from the developed country as city managers.³⁵

Romer's theory quickly became a subject of debate. A good portion of the critique is based on the following grounds: the fear of the second advent of colonialism, scarcity of funds dedicated for international development, high costs of infrastructure, Romer's generalization of Hong Kong's history, and sovereignty concerns³⁶ However, the charter city theory found many supporters as well. Some view a charter city as an escape from "African chaos."³⁷ Interestingly, the debate focuses on Romer's vision of a charter city, a new Hong Kong. So far, little attempt has been made to address Romer's idea on a theoretical level, element by element.

It is hard to dispute the effect of technological innovation on economic growth because of the strong empirical evidence that supports Romer's New Growth Theory. It is also hard to argue with the fact that developing countries do not copy rules when they adopt new technology. However, Romer's view of rules requires a closer look.

First, the term "rules" itself is deceiving. Rules are only effective if they are applied and enforced. Consider the following examples. All Soviet and Russian constitutions, starting with Stalin's constitution

of 1937, rank among the world's most progressive constitutions for recognizing and protecting human rights and liberties.³⁸ Yet it is a well-known fact that the abuse of human rights by the Soviet government and, to a lesser extent, the Russian Federation has been nothing short of egregious. Additionally, meta-rules, as noted above, are essentially political systems that include legislative and rulemaking processes. Because Romer's rules are in fact a mix of substantive norms and the political system, a more appropriate term for rules is a "governance system."

Second, Romer operates under the assumption that developed countries have superior rules. This assumption can be true if we look at the governance systems as a whole. However, Romer's assumption is not necessarily correct as applied to each component of the governance system. To illustrate, let's compare the constitutions of Somalia and the United States. The Somali Constitution on its face is a much superior legal document than is the U.S. Constitution. It is better organized, contains extensive provisions on human rights and freedoms, and leaves less room for ambiguity.³⁹ In fact, this is true in respect to virtually every constitution enacted after World War II. However, it is hard to even compare the U.S. and Somali governance systems since the latter barely exists.⁴⁰ Therefore, it is important to differentiate between various substantive rules, rulemaking, legislative processes, enforcement, and other governance mechanisms while contemplating rule "import" to a developing country.

Third, it is unclear whether Romer's charter cities should be based on the concept of rule of law. The closest he comes to mentioning the rule of law is when he refers to copying "good" rules but does not elaborate on the criteria for determining a good rule.⁴¹ Roberto Rodrigo and Dani Rodrik state that "democracy and the rule of law are both good for economic performance" and per capita incomes.⁴² The American Bar Association Rule of Law and Economics working group adds, "Not only does the rule of law foster economic development, but also economic development further advances the rule of law."⁴³ Thus, copying a governance system without planting the rule of law as the underlying political regime of the charter city is an ill-advised proposition.

Fourth, Romer chooses the word “copy” when he talks about transferring a rule to a developing country.⁴⁴ This creates an overly simplistic view of the rule transfer process. If a charter city is to stay a part of the host country, the rules should not only be selectively copied, they should also be integrated with the national governance system. For example, a charter city may enjoy significant autonomy over financial, contract, tax, and property affairs within its borders. However, it is unlikely that any national government would cease control over all matters, such as criminal prosecution, defense, and the like. Thus, allocation of powers is likely to be a key area of interaction between the national and city governments.

Fifth, Romer emphasizes increase in the level of wellbeing through economic growth, development, and poverty reduction as the principal goal of a charter city. Although he mentions depletion of natural resources in his fisheries example, he largely ignores concerns over environmental degradation. Yet it is hard to imagine a high level of wellbeing without clean water and air. There is a plethora of examples of a lag in environmental protection rules that lead to wellbeing disasters, such as Love Canal in the United States, Bhopal in India, or Tamika in Indonesia. Thus, sustainable development should become at least a part of a charter city’s agenda. Moreover, more and more authors agree that “environment” and “development” as public policy goals should not be considered without each other.⁴⁵ Therefore, in my opinion, sustainable development should be the core principle upon which charter cities are built. In the following section, I explain why sustainable development can make charter cities a revolutionary solution to the world’s environmental problems.

II. SUSTAINABLE DEVELOPMENT AS THE FOUNDATION OF CHARTER CITIES

One usually does not lay down a foundation with a lifespan of fifty years for a house where he or she plans to live for 100 years. The same logic applies to planning a city for many generations without ensuring that its foundation – economic growth – does not shortly collapse under its weight. Because the

developing world is where the most economic growth needs to occur, and because the developing world will get hit the hardest by climate change and other environmental problems, charter cities must be premised on the concept of sustainable development.

“That is the abyss ahead,” writes Gus Speth in his recent book *The Bridge at the Edge of the World* about the real and palpable threat to our existence due to the accelerating pace of environmental degradation.⁴⁶ From rising temperatures to depleting freshwater, from proliferation of toxic pollutants to deforestation and desertification, and from acidification of the oceans to diminishing biodiversity, our environmental problems are surely going from bad to worse.⁴⁷ The most recent forecast, published in a special collection of Royal Society journal papers, shows even direr consequences of a 2 C° temperature increase.⁴⁸ Additionally, a rise of 4 C° could come as early as 2060.⁴⁹ Rachel Warren from the University of East Anglia in the United Kingdom described the 4 C° world as follows:

Drought and desertification would be widespread. . . . There would be a need to shift agricultural cropping to new areas, impinging on [wild] ecosystems. Large-scale adaptation to sea-level rise would be necessary. Human and natural systems would be subject to increasing levels of agricultural pests and diseases, and increases in the frequency and intensity of extreme weather events.

. . .

This world would also rapidly be losing its ecosystem services, owing to large losses in biodiversity, forests, coastal wetlands, mangroves and saltmarshes [and] an acidified and potentially dysfunctional marine ecosystem. In such a 4C world, the limits for human adaptation are likely to be exceeded in many parts of the world.⁵⁰

The developing world is likely to be hardest hit.⁵¹ People in the “poor South” are more directly dependent on natural resources, more exposed to extreme weather events, and generally have a smaller adaptive capacity than people in the “rich North.”⁵² Additionally, a study by Robert Mendelsohn, Ariel Dinar, and Larry Williams cites geographic location of poor countries as the main reason why they will bear the brunt of climate change consequences.⁵³ The study concludes, “The results indicate that the poorest quartile will suffer damages in all scenarios.”⁵⁴

There is little doubt about the anthropogenic cause of climate change. The vast majority of scientists and, as of December 2009, 114 heads of countries formally agreed that people are responsible for the biggest environmental threat that humanity has ever faced.⁵⁵ Economic growth under the business-as-usual scenario has been tied to GHG and other pollutant emissions, depleting natural resources, and overall environmental degradation.⁵⁶ Proponents of the business-as-usual scenario may point out that the rate of environmental degradation in proportion to economic growth has decreased in the last few decades.⁵⁷ However, the overall growth rate, especially in certain developing countries, is outpacing the rate of eco-efficiency. Countries are measured by their economic growth calculated in gross domestic product (GDP). Capital markets freeze at the fear of slow or slower-than-predicted economic growth. People's pension savings go down in value with Wall Street buckling under GDP woes. Humanity is firmly on the economic growth imperative path toward an exponential growth economy. The way things appear right now, we are on a collision course with finite natural resources and irreversible environmental changes.

As I noted above, in 2004, 1 billion people lived on \$1 a day.⁵⁸ About 2.5 billion live on less than \$2 a day.⁵⁹ In Somalia, per capita GDP is \$600.⁶⁰ Thus, many Somalis live on less than \$2 a day. In comparison, in the United States, per capita GDP is \$46,000.⁶¹ An average Somali emitted 0.1 metric tons of CO₂ in 2007, whereas an average American emitted 19.3 metric tons of CO₂.⁶² The developing world is quickly catching up with developed nations in terms of GHG emissions⁶³ In fact, according to the Environmental Protection Agency (EPA), total emissions from developing countries will surpass emissions from developed countries in 2015.⁶⁴ Imagine the impact on atmospheric GHG concentration if we are to bring the per capita GDP of 2.5 billion people from \$2 a day to the U.S. level at the current carbon "cost." And the 2.5 billion figure is growing fast; in fact, most of the population growth will occur in developing countries.⁶⁵ Therefore, if we are to rely on the business-as-usual methods of economic growth to reduce poverty in developing countries, we will drastically accelerate our descent into the abyss.

Therefore, sustainable development is only logical way of fighting property. John Holdren asserts that human well-being is based on the following three core principles:

- Economic conditions and processes, such as production, employment, income, wealth, markets, trade, and the technologies that facilitate all of these;
- Sociopolitical conditions and processes, such as national and personal security, liberty, justice, the rule of law, education, health care, the pursuit of science and the arts, and other aspects of civil society and culture; and
- Environmental conditions and processes, including our planet's air, water, soils, mineral resources, biota, and climate, and all of the natural and anthropogenic processes that affect them.⁶⁶

He gives all three “pillars” equal value because all three are indispensable.⁶⁷ Holdren cautions against strengthening one pillar at the expense of another.⁶⁸ An economy will never be successful in a country that is torn by social unrest.⁶⁹ Additionally, an economy cannot function without inputs from the environment.⁷⁰ Correspondingly, an environmental disaster is likely to cause social tension and unrest even in a country with a strong governance system.⁷¹ Finally, people are unlikely to pay any attention to environmental concerns if their basic economic needs are not met.

Holdren concludes that the most improvement in well-being can be achieved only as long as the well-being can be sustained.⁷² He sees development as improving the human conditions in three main aspects: economic, sociopolitical, and environment.⁷³ He defines sustainable development as development that leads to maintaining the improved conditions indefinitely.⁷⁴ According to Holdren, sustainable well-being is possible to achieve by pursuing sustainable development where well-being is absent.⁷⁵

Does the charter city theory hold up in the face of the sustainable development imperative? I believe it does, provided we are willing to make several important alterations in definitions and substance. Let's start with the “rules.” First, I have concluded in the previous section that the rules are actually governance systems. Therefore, I will refer to them as such in the remainder of this paper.

Second, some substantive laws should be left alone if they fit in the imported governance system.

We have to exercise even more caution in respect to social norms as they often form cultural identity of an individual, ethnic group, or nation. Because an opt-in policy is likely to attract people of different cultures and backgrounds, we have to make sure that the social norms of one ethnic group or nation are not a superior to the social norms of another group or nation.

Third, the rule of law must be the foundation of a charter city's governance system. The goal of sustainable development would be hard to achieve without the guiding force of rule of law because it serves an institutional, political, and cultural foundation for socio-economic transformation. For example, the following statement by the International Development Law Organization (IDLO) summarizes the importance of rule of law for combating climate change by developing countries: "Without the rule of law and good governance, developing countries will not realize the benefits of the international climate regime such as funding for adaptation or the development of a low-carbon economy by full participation in the carbon market."⁷⁶ The concept of rule of law does not have a precise definition and it can vary from one legal system to another.⁷⁷ However, legal scholars agree on several principles that a nation aspiring to the rule of law must follow. According to Lon Fuller, these principles are:

1. Laws must exist and those laws should be obeyed by all, including government officials.
2. Laws must be published.
3. Laws must be prospective in nature so that the effect of the law may only take place after the law has been passed. For example, the court cannot convict a person of a crime committed before a criminal statute prohibiting the conduct was passed.
4. Laws should be written with reasonable clarity to avoid unfair enforcement.
5. Law must avoid contradictions.
6. Law must not command the impossible.

7. Law must stay constant through time to allow the formalization of rules; however, law also must allow for timely revision when the underlying social and political circumstances have changed.

8. Official action should be consistent with the declared rule.⁷⁸

Fourth, a governance system should not be copied blindly. It should be integrated as an autonomous unit of the host country's governance system. A charter city should inspire the host country and lead by example. It cannot divide the society into the charter city citizens and the less fortunate citizens. For example, charter city citizens cannot be subject to different criminal laws.

I reject poverty reduction based on business-as-usual economic growth as the goal of charter cities. Sustainable well-being, as defined by Holdren, should instead be the goal of every charter city because none of the three pillars of well-being should be ignored at the expense of another. To ensure that people are making a conscious choice, the opt-in policy that Romer proposes should be the cardinal principle of individual participation in a charter city.

I also reject Romer's vision of New Hong Kong as a model application of his theory. While some aspects of Hong Kong's governance system are attractive and can serve as useful models, Hong Kong at large does not create sustainable well-being because it was not based on sustainable development. Therefore, it would be foolish to use something as a model when it lacks the core principle upon which our prototype should be built.

With this theoretical framework in mind, in the next section I draw a sketch of a charter city while working through several practical challenges.

III. MERGING THEORY AND SUBSTANCE: MODELING A SUSTAINABLE CHARTER CITY

It is not a secret that leaders of many developing countries do not share Holdren's views. This is highlighted by global climate change negotiations where the principal question is to what extent the developing countries should be exempt from reductions in GHG emissions. For example, Jing Cao asserts that each country's climate change responsibilities should be determined pursuant to the Greenhouse Development Right (GDR) framework.⁷⁹ The GDR framework is largely premised on the following notion: if developed countries became rich at the expense of the environment, developing countries should have the right to pollute and grow their economies as well.⁸⁰ It is hard to convince developing countries to get on the sustainable development path when industrialized nations are largely responsible for climate change and some industrialized nations are continuing to have a carbon party like it is 100 B.C. This is only one example of the seemingly insurmountable practical challenges that the charter cities theory faces. Some of them may be impossible to overcome in certain countries. However, taking a closer look at some of the challenges will help to determine whether the charter cities theory has any viable future.

Development v. Environment Dispute

How do we persuade developing nations that joining the high carbon density club is not such a good idea? After all, the principle of common but differentiated responsibilities under the Kyoto Protocol does not require developing nations to make any new commitments while "recognizing their national and regional development priorities, objectives and circumstances."⁸¹ Should developing countries meet their development goals first? Unfortunately, given the rate of environmental degradation, this question is no longer relevant. Proceeding toward these goals on the business-as-usual route is likely to lead to a global environmental catastrophe.

Technology transfers may be the most realistic solution of this challenge. Under the concept of a technology transfer, a developed country would pass a climate friendly technological solution to a developing country as a substitute for "dirty" technology.⁸² Technology transfers as a climate change

mitigation mechanism included in the Copenhagen Accord and were further developed in the draft agreement that came out of the COP 16 conference in Cancun.⁸³ In particular, Article 48 of the Draft decision of the COP 16 (the “Cancun Decision”) provides: “Agrees that developing country Parties will take nationally appropriate mitigation actions in the context of sustainable development, supported and enabled by technology, financing and capacity-building, aimed at achieving a deviation in emissions relative to ‘business as usual’ emissions in 2020.”⁸⁴ Since we already know what happens when technologies are copied without corresponding changes in the governance system, it seems logical to conduct such technology transfers in a charter city package.

Another option that is worth exploring is charter city building as part of U.N. peacekeeping operations. Peacekeepers already set up and manage refugee camps filled with people who have nothing to do. The idea of U.N. peacekeeping charter cities can be brought under the canopy of nation rebuilding. Since an intervention by U.N. peacekeepers already requires consent of all major parties of the conflict, a charter city or a village can be a part of the “package deal.”⁸⁵ This solution may be the hardest to achieve. However, the possibility of helping millions people in despair warrants giving this idea at least some consideration.

The land for a charter city can be bought or leased (along with broad rights over the land) from a developing country. Certain energy companies already own or lease significant parts of developing countries for the purpose of extraction of minerals. It seems illogical that an international intergovernmental or non-governmental organization should be prevented from owning a piece of land in a developing country to pursue an honorable goal.

The Ghost of Colonial Past

It becomes very apparent from the title of Mallaby’s article in *The Atlantic*, “The Politically Incorrect Guide to Ending Poverty,” that the charter city idea is full of controversy. My Nigerian, Kenyan,

and Australian-Indian classmates cited the stigma of colonialism as the main reason why Romer's theory will not work in developing countries. The ideological baggage of imposing foreign rule on developing countries is hard but not impossible to overcome.⁸⁶

The most effective solution to this serious problem is the opt-in policy of charter cities. If people come to the city voluntarily, they probably will be less likely to complain that the rule of the governing body was imposed upon them. Additionally, the governing body can and should have diverse racial and ethnic representation. There are plenty of great managers in virtually every country. Romer proposes having foreign managers, or even bureaucrats from foreign countries, to run charter cities.⁸⁷ Substituting foreign managers and bureaucrats with a transparent international governing body associated with an international intergovernmental or non-governmental organization will bolster legitimacy of the governing body.

Another way to calm the fears of neocolonialism would be to have clear provisions on transitioning the control of a city from the international governing body to a democratically elected city government. Eventually, sustainable development and the rule of law will do their magic and the city will produce its own bright managers. Having a term limit for the international governing body or a clear set of benchmarks will serve as an extra incentive for local managers to emerge.

The Size Problem

Romer envisions his charter cities modeled after Hong Kong with similar population size, population density, and geographic setting.⁸⁸ However, for charter cities to be a universally sustainable development solution, they have to be flexible in size, location, and the dominant economic sector.

It would be hard to imagine Silicon Valley Equator in Congo or the Communal Farm City in Hong Kong. Therefore, the dominant economic sector should not be set in stone. The underlying technological innovation can be in agriculture, energy, high tech, or any other area. The main economic sector should be

determined on the skills of human capital, geographic location, available natural resources, and other factors. It does not have to be a charter city; in fact, in most developing countries setting charter villages would be more appropriate. A charter village, in my opinion, would be a great setting for a Bob Hopkins' Transition settlement.⁸⁹

When my wife and I were brainstorming the idea of SEA, we did not envision it being ten million people strong. The size of a charter city or charter village should correspond with the capacity of the underlying technological innovation and dominant economic sector. I disagree with Romer's idea that a charter city should be a coastal settlement. There is a definite benefit of being close to trade routes by virtue of coastal location. But depending on the main economic sector of a charter city, direct sea or port access is not mandatory.

Funding and Economic Sustainability

Although self-sustainability is a charter city goal, it is likely that founding a charter city will require a significant up-front investment. The governing body will need funds to create necessary infrastructure and attract and grow human capital. Thus, a legitimate question arises about the source of the initial investment.

As I noted above, Romer is currently trying to persuade leaders of developing countries to invest into charter cities.⁹⁰ However, his idea should be appealing to a much broader audience. Charter cities present a rare "triple dividend" solution of environmental, sociopolitical, and economic problems. This makes charter cities a primary goal for international aid funds of various flags and colors. For example, refugee camps provide a temporary yet critical solution of humanitarian crisis. However, they depend on international aid and do not provide a permanent solution, whereas charter cities do. On the climate change front, a charter city can be a perfect candidate for a carbon offset project and can be funded through the newly established Green Climate Fund.⁹¹ Finally, because a charter city creates a mechanism for

sustainable economic growth, it should be a primary target for economic aid. Overall, investments in charter cities are a much effective and productive way to distribute \$120 billion that developed countries spend on international aid.⁹²

Charter cities present a unique opportunity as a test bed for the “new economy” ideas reflected in the works of several authors.⁹³ Free of public pressure, the governing body can internalize environmental costs by shifting tax burden from payrolls to carbon and other pollutants. As the German energy tax experience shows, such a shift spurs “green” economic growth and innovation.⁹⁴ Because a charter city or village will be planned completely or almost completely from scratch, “smart” urban design and permaculture principles will be utilized.⁹⁵ Finally, sustainable charter cities can serve as hubs for new business organization forms such as for-benefit-corporations.

Some authors voiced concerns over a possibility of merging public and private sectors in charter cities.⁹⁶ If that occurs, the public sector will disappear and the power of the business entity that dominates the city landscape will go virtually unchecked. First, such a merger is not a given. If a charter city is managed by an international governing body that is associated with an international intergovernmental or non-governmental organization, it would likely take amending the charter to remove the governing body from power. Second, if the merger does occur in some form (*e.g.* the governing body is the only employer in the city or village), several successful examples point that such a merger may actually be good news for the community. The prime example comes from the Mondragon Corporation in the Basque region of Spain. The Mondragon Corporation is deeply imbedded in the local community.⁹⁷ It is based on a co-operative model with the vast majority of the workers actually owning the company.⁹⁸ Mondragon consists of 100 enterprises ranging from food producers to a bank and even an education institution.⁹⁹ Mondragon’s economic performance is astonishing – between 2006 and 2007 it created 20,000 new jobs, returned \$50 million to its workers in dividends, and increased its revenues by 13%. The impressive economic growth

comes with a truly unprecedented profit allocation scheme – Mondragon distributes approximately 20% of the profits to its workers, reinvests 70% within the company, and 10% going to community projects.

Cultural Identity

A planned charter city or village will likely be a “melting pot” of different cultures, races, ethnicities, and religions. A genuine concern arises about this melting pot destroying individual cultural identities and removing people from their ethnic roots? There is certainly a possibility of that. Migrations remove people from their cultural environments and parts of their identities get lost in transition. However, charter cities or villages may provide the least painful cultural transition and even resurrect some forgotten values.

First, the opt-in policy sends a clear message that because the city or village is open to everyone, no one should expect that her or his culture will dominate it. Second, the notion of sustainable development as the cornerstone of a charter city or village may awake the eco-conscious undertones that many cultural and religious traditions are based on. Finally, the sustainable melting pot may create a new system of values that is based on respect to the environment and well-being of others. This system may prove to be a strong alternative to the culture of materialism and consumerism.

CONCLUSION

Romer’s charter cities vision is based on solid economic theory and provides an intriguing option for international development. However, because the charter city theory does not factor the accelerating rate of environmental degradation, the theory, if applied, may actually decrease overall well-being. That is why sustainable development must be the cornerstone of every charter city. Application of the charter city theory is likely to face many practical challenges. These challenges are not insurmountable. There is an

abundance of practical solutions that can be derived from already-existing institutions and from the inherent features of charter cities. Modified, enhanced, and flexible charter cities can provide a model solution to the world's environmental, economic, and sociopolitical problems.

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