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From Mother to Maintainer: How Egypt Can Set the Example for the World

Agriculture has been central not only to the basic sustenance of people, but also to the very advancement of humankind. Only in a handful of regions has farming independently developed. Obviously, geography is a main factor in that it determines the terrain and climate for agriculture whose operative word is “culture.” Egypt with its nomadic desert climate also claimed the mighty Nile that enriched the land and fostered farming, giving rise to granaries and the means to transport food stuff, leading to technologies and architectural accomplishments that still stand as testament to the birth of modern civilization. Other empires watched with envy as the pharaohs’ fields provided crops for the growing populace, turning grain to gold with agronomic alchemy. Today that vision is fractured following years of misguided government policies dating back to the 1952 monarchical revolution, eroding the prosperity of the land, still one of the most productive in the world. To complicate that problem, increasing numbers of people are leaving the slums of Cairo, creating urban sprawl in ever expanding regions. However, with help from outside sources and improved Egyptian policy—taking advantage of the culture’s respect for education, the vastness of its school system and relations with the United States—it is not only possible to solve most of these problems but to do so in a manner that will revive civilization for another millennium. The challenges are as great as the opportunities, especially since failed government policy has angered the Egyptian people, cynical that positive change is possible. They have witnessed the inefficiency of government that clings to the status quo and the rise of a wealthy class that has little respect for the plight of the masses. The goal is to focus on that disenfranchised lot—not by trying to remedy overnight conditions that have indentured them—but by planning how to reclaim desert areas sustained by agribusiness rather than factories while fostering equality for women and free press for society. By marshalling these resources, the banks of the Nile could be the model for other such desert communities and a showcase not only for North Africa, but also for regions of Asia, South America, and the Middle East.

When we think of Egypt, we think of the pyramids and birth of civilization replete with libraries of Alexandria and magnificence of Cairo. Actually, almost 70 % of the modern-day population lives in rural areas. A total 97% lives in the Nile Delta region. However, only 6% of a country, about the size of Texas, is even settled. Only recently, people are starting to leave overpopulated areas helped in part by government initiatives that are spawning new industrial cities on reclaimed desert. This is exciting yet troubling at the same time. The main purpose of reclaiming the desert remains strictly for agriculture. Nevertheless, factories, expensive upper-class housing, and other luxury amenities are overtaking and complicating what little land is reclaimed—about 31,000 acres per year. The mismatch of industry and luxury in new agricultural areas is complicated yet again by government inefficiency.

The new Egyptian government under Nasser attempted to fix centuries’ old poverty too quickly, pouring resources into public schooling and social programs without the continuing economic, social and civic infrastructures to sustain them. While commendable, the noble but untimely Nasser actions met with disappointment, consuming what little resources the new government possessed. Job creation suffered. Agricultural enhancements were ignored. Unemployment idled 10% of the educated public while government nationalized and mismanaged industries in textile and other commodities.

Meanwhile, Egyptian women lacked fundamental rights. Combined with the jobless, almost 50 % of the work force was idle during a period of population growth in the middle to late 20th Century. In many poorer rural areas women were relegated to domestic household duties, raising ever larger families requiring more services and sustenance. Soaring population needs to be addressed. At more than 72 million, with a growth rate of 2% per year, the Egyptian government has taken the initiative with a wide reaching family-planning body. That planning doesn't seek to change culture by giving women ever greater rights, especially at the work place. Culture dictates that women must seek approval for most domestic activities, including conception. In 2000, women finally received approval to gain passports and travel without the permission of their husbands. In that same year they were allowed to sue for divorce without having to prove mistreatment. Women make up 30% of the work force, but mostly in low paying service jobs. The majority stays home and raises children. More than 55 percent of the female population is illiterate, and in rural areas, cannot take advantage of education. Due to a fear of polygamy by their husbands, or social condemnation, Egyptian women tend to have a large number of children, more than 3.4 per woman, often against their will. This phenomenon puts strain on sustainable development, slum control, and rampant unemployment. Economists around the world have noted that increasing women's rights would help the economy, limit population, control terrorism, and bring a whole host of civil liberties. Equality, however, has been stalled as much by religious as social beliefs. An initiative from local imams to let their followers know that the Koran supports employment for women could be effective as well, perhaps drawing on the success of other Islamic countries, such as the United Arab Emirates. Communication and access to education are keys to enhancing the status of women. But as population increases, such access becomes more difficult, especially when combined with economic and other social maladies.

Cairo, the most populated African city at 9.2 million, possesses one of the world's most decayed centers with inadequate, unsafe housing replete with homelessness, hunger, and disease. The center of a city is its heart, and when that heart is broken, it symbolizes failed policies and corruption. Who is to blame when a tenant house collapses and kills dozens of families? Egyptian jurisprudence is as apt to blame families for living there rather than bureaucrats for allowing circumvention of laws or landlords for allowing their structures to collapse. Without trustworthy courts, economies collapse, too, because there is no precedent that protects the people or enhances their standard of living. Spontaneous slums dating back to a half century surround the outside of the urban area. These parts of the city are a legislative dead zone that are technically illegal, but tolerated in practice. Close to 80 slums exist in and around Cairo. Confined to small parcels of land, population densities approach an amazing 400 people per acre. The constant risk of a collapse or damage due to the building's position ranks high on minds of the poor who reside there. Government inaction and sloth only exacerbates damage—both mental and physical. Consider, for example, the recent rockslide in a Cairo slum that killed close to 70 people. Throngs of outraged residents, convinced by the sluggish and half hearted government rescue, labeled their government as corrupt whose sole goal was to serve the rich and ignore the poor.

Egypt must improve the infrastructure of low income neighborhoods. Pretending that these places do not exist alienates a large majority of the populace. As a fundamental right, and to offset the presence of disease, the poor especially need access to clean water and sewage treatment. Building codes must be honored so that shelter is safe. Otherwise disease, pollution, and disaster will spread with overpopulation, eventually curtailing tourism, still a viable industry because of Egypt's illustrious past. The present, however, remains an embarrassment that requires the government to take several courses of action. First, officials must conduct an extensive census of the slum situation. Accurate records will help direct relief where most needed. Egypt needs to document poverty with accurate census-taking to understand the ramifications of the population crisis. Since most of these people do not have papers of any sort, efforts must be made to identify them and label them as citizens worthy of attention. That is why census-taking is

important. As soon as a person is counted, a matter of ignorance becomes an issue of ethics, obligating the government to address the underclass of poor in Cairo and similar environs. Direct relief programs must be reenergized through a combination of government and private industry. Again, communication and education can aid in mobilizing the masses.

What good is education without freedom of information? A free press can inspire the masses to action or the government to reform when corruption is exposed. Small wonder 43% of the population earns less than one dollar a day, the government has cracked down on free and independent press system. It would be dangerous for the government just to ignore these people. They still rely on the “Emergency Law” to limit free speech. Most developed nations have criticized that law as an age old government crutch. Slowly, things are changing. In 2003, the Court of Cassation acquitted several press members on charges of “defaming the government.” The next step would be for press to expose the social defamation of failed government with the arrest of officials under a new “Emergency Law” that limits corruption rather than speech. However, there have been too many setbacks to envision such a scenario. In 2007, four editors of opposition presses were sentenced to one year imprisonment after allegedly spreading lies about government officials, including Gamal Mubarak, son of Hosni Mubarak, and anticipated successor. The World Press Association, Reporters without Borders, and the Committee to Protect Journalists can work with the Egyptian Press Association and the Egyptian Journalists Association to support greater press freedoms.

Agriculture relies on information, as evidenced by America’s investment in university-based extension departments. The 1914 Smith-Lever Act that created cooperative extension has been hailed at one of the most ingenious pieces of legislation ever enacted in the United States, diffusing technology and agricultural methods across the country. This enhanced an agricultural society created in the 19th century as pioneers moved west, established towns, sustained them with agribusiness, oversaw that business with granges, developed a transportation system, and eventually fed itself and then the world. That created a world-class economy. America did not settle the Middle and West and disperse East Coast poverty-stricken populations west to work on assembly rather than rail lines.

To be sure, Egypt’s economy is extremely complicated and much different than America’s. But fundamentals must be followed for economy to sustain displaced populations requiring ever greater transportation systems and fuel and energy resources to power them. America rose from the grassroots up rather than from plantations on down. This is why many Egyptians have blamed President Hosni Mubarak for failing to raise the standard of living. Through recent growth of business, we have seen little trickle down to workers. A major hurdle is the lack of worker’s rights or unions. In agricultural areas of the Midwest, South and West in the United States, the grange oversaw agricultural issues and helped shape government farm policy. The National Grange remains the country’s oldest agricultural organization in 37 states with a membership approaching 300,000. In addition to helping families, a chief focus of the grange involves cooperative education and economic development. Egypt requires such a system, for no matter how many desert acres are reclaimed, failure is bound to occur with inefficient government bureaucrats controlling businesses with few agricultural ties. Also worker protection for that segment of the populace fortunate enough to be employed is rare. Worse, with rampant joblessness due to inefficiency or discrimination against women—made worse by limits on the free press—the result without intervention may mean the next generation will encounter the same crises as the last.

Because of increasing population, Egypt must adopt sound agricultural practices. This means inventing the technology and developing the resources to reclaim ever larger areas of the desert. Pouring hundreds of millions into reclaiming sand and transforming that into soil, the government expects to add

close to 3 million acres in the near future. New pipelines direct increasing amounts of water to reclamation sites, but these require as much planning as inner city renewal, for without planning to ensure agricultural sustainability, success can turn to failure. Currently, projects successfully reclaimed over 1 million acres of potential farmland. Lack of regulation stunts this notable achievement. People are moving to these new agricultural-based places in droves, but often they lack knowledge of how to utilize the land, especially when factories are introduced with little association with agribusiness, a problem compounded by the management overseeing those facilities and seeking middle to upper class amenities. This is why a National Grange like organization has to be established to ensure sustainability, foster cooperative education, and otherwise shape government policy. A sustainable development board or association can establish the agenda for national government, not the other way around. The government needs to marshal its forces to control urban sprawl, relegating oversight on reclaimed desert regions to that entity. There is a reason that the National Grange was formed following the Civil War in the reunited United States. There was lack of trust in government and communities were devastated. The grange network over time restored trust through the common bond of agriculture, family and cooperative education. These can be the touchstones of a new Egyptian Agricultural Reclamation Board that can advise branches of government on such issues as the levels of water waste on formerly desert farmland. Conserving water in a desert community is nothing new; in Egypt, in fact, it is ancient. And that is the problem. An Agricultural Reclamation Board can cease the ancient practice of dumping huge amounts of water on high-thirst crops and enhance conservation by cutting down on the expense of moving or diverting water from the Nile. Egypt's respect for learning and huge school network are set up already for the cooperative education model developed by land-grant universities, including the first such institution, Iowa State University, which can send students, advisors, researchers and extension officers to assist local farmers in conservation methods aligned with the development of new drought-resistant hybrid crop varieties. Egyptian scientists are ready to collaborate with us at such facilities as the Agricultural Genetic Engineering Research Institute, which has transferred a gene from barley to wheat with the result of a crop requiring only one rather than eight irrigations per harvest. Iowa State University, which already has an association with the Institute, can partner for grants to enhance other crops with higher yields for a hungry expanding population. Utilizing the acumen of their own as well as our land-grant institutions, Egypt can sponsor joint projects that can evolve into research and development facilities located in rural areas apart from Cairo, again in the model of 19th Century rural reclamation and 20th Century cooperative extension in the United States.

Egypt, for all its history and beauty, has an enormous opportunity to be a showcase of agricultural science and technology, modeling sustainability and conservation for the rest of the world. Its vast agricultural power to grow a wide variety of crops, especially grain, can give its own and other governments the option of diverting resources to agriculture rather than opting to purchase cheap food from the United States and other countries. Once self-sufficient, growing enough grain for its internal use in the 1970s, Egypt now relies on the United States for more than 29 % of its agricultural imports. Once famous for being the birthplace of civilization, Egypt can reclaim its global role by becoming the maintainer of civilization. Stakes are much too high for one of the leading agricultural nations in the world to wallow in its own corruption, inaction, and self serving attitudes. It cannot, it must not. However, to reclaim its status, Egypt must foster a freer press to expose corruption and injustices of government. That can funnel people's anger at the right targets. By foster equality for women, new ideas and methods can enhance innovation. By addressing urban sprawl by census-taking, government can identify social stigmas at odds with the country's history and tourism industry. Creation of a grange-like reclamation board to oversee government policy will help new communities sustained by agribusiness rather than business as usual. Because of its past, Egypt understands the value of education. Rather than using that network to validate the status quo, education can liberate the illiterate masses, especially in rural areas, where the science of agriculture and the art of agribusiness must be employed to make jewel of the Nile shine bright again as a beacon of sustainability for the rest of the world.

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