

**Comments to CALS Environmental Sustainability and Development Task Force on topic of
Global Economic Growth with Emphasis on Environmental Sustainability**

Thursday, November 20, 2008
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The core challenges concerning inclusive and sustainable global economic growth stem from six major, interrelated trends. CALS and Cornell are well-positioned to address each of these.

- (1) Vast increases in trade and capital flows combined with rapid advances in technology increasingly link all nations and peoples.** Increasingly rapid and large-scale cross-border flows of people, of diseases, of finance, of pollution, of violence, etc. raise unprecedented and interlinked challenges to private firm strategy and public policy, from mitigating and adapting to climate change, to preventing financial contagion, to managing multicultural and transnational workforces. Senior decision-makers have simultaneously more impact (on others) and less control (over their own domain). Globalization thereby reinforces the importance of developing public - private sector partnerships to foster inclusive and sustainable growth.
- (2) Growth in demand for food and energy, due to growth in population and incomes, has been outstripping growth in supplies for several years, leading to the 2007-8 food and fuel price crisis.** We need environmentally sustainable agricultural intensification with productivity growth, both per unit area cultivated and per agricultural worker. There is limited scope for further extensification of agriculture without causing serious environmental harm. We are reaping a bitter harvest from past failures to invest in improving smallholder productivity and renewable, non-agricultural energy sources. USG investment in international agricultural development has fallen roughly 80% in the past generation in inflation-adjusted terms. World Bank lending for agriculture has fallen from 30% in 1980 to only 13% in 2007. The share of global overseas development assistance devoted to agriculture has fallen by more than two-thirds over the past twenty years, to less than 5% today. The numbers with respect to alternative (non-hydrocarbons) energy are only modestly better.
- (3) Technological advances are increasingly bypassing the poor.** Technological change has always been the primary engine of improvement in the human condition, driving both increases in individual productivity – and thus earnings – and in the availability of critical public goods such as potable water, infectious disease control, etc. US universities such as Cornell are the envy of the world as a vast source of discoveries and skilled manpower. But increasingly strict intellectual property rights, including in life forms and management practices, and shrinking or flat-and-low real public research budgets in the US and abroad – especially for agriculture, renewable energy, and protection of the global commons – increasingly erode the benefits of scientific discovery for the world’s poor. Most such gains are now captured in commercial innovations that often price the poor out of the market. From the digital divide to growing inequality in access to medical treatment and in crop yields, the benefits of new technologies are concentrated among the global “haves” more than ever.
- (4) Disasters are increasing in frequency and intensity.** The number of natural disasters annually worldwide has roughly quadrupled in the past 25 years, while the number of persons affected by disasters has roughly tripled over the same period. The numbers affected by civil conflict and war have likewise grown, albeit not quite as quickly. People in low-income countries are four times more likely to die due to natural disaster and the cost per disaster as a share of GDP is considerably

higher in developing countries than in the OECD. Combined, the frequency and consequences of disaster are greatest in poorer places; Africa and Asia combined average a Katrina-style humanitarian disaster each fortnight. These disasters also wreak environmental havoc on reefs, forests, wildlife, fresh water sources and the land. The development and diffusion of effective risk reduction, mitigation and transfer mechanisms lag badly. Governments and private philanthropy can make an enormous difference, as can commercial markets, perhaps especially financial, ICT and life sciences firms that develop vaccines, insurance, improved cultivars, low-cost telecoms, etc.

- (5) US international policy is becoming increasingly incoherent in a globalizing world.** Remittances from migrants and earnings from exports into the United States dwarf aid as sources of revenue for low-income countries. But US farm, immigration and trade policy are increasingly impeding progress by the world's poor. Meanwhile, although foreign aid from the United States has grown dramatically – back to Marshall Plan scale, at roughly \$30 billion/year, up from half that amount in the 1953-2002 period – US foreign assistance has become increasingly dispersed across the federal government, administered by 17 different agencies. In 2005-6, USAID (including Title II PL480 food aid appropriated via USDA) accounted only for 43%, roughly half its Marshall Plan era share. The Departments of Defense and State have sharply expanded their direct foreign aid operations, although poverty and hunger reduction are at best secondary objectives in those programs. Aid growth has not been concentrated with a clear mission and bureaucratic home, resulting in diffuse, uncoordinated activity. Thus the US consistently ranks in the bottom half of the OECD countries in evaluations of aid effectiveness and coherence, due mainly to exceptionally high rates of aid tying and poor targeting of assistance to poor-but-well-governed countries.
- (6) Education grows ever more valuable in a globalizing economy.** Growing earnings inequality in all countries reflects increasing individual returns to skill due to technological advances and geographic mobility. At the macroeconomic level, a cadre of well-educated, well-trained, properly incentivized technicians and policymakers is more valuable today than ever in stimulating total factor productivity growth and the establishment and maintenance of a culture of evidence-based policymaking. We must build up the human capital base on which technological and institutional advance depends, above all in those places that most lack the human capital needed to advance sustainable development objectives locally and globally.

Through research, teaching and extension/outreach programming, Cornell in general – and CALS in particular – is a key provider of innovations and innovators that address these trends, both in harnessing the opportunities they present and in managing the challenges they pose. But we must work harder than ever to extend and sustain this leadership. And we work more creatively across disciplinary and national boundaries to address these six major, complex trends that increasingly shape the world we and our children face. Cornell and CALS are adapting to meet these needs, both at the level of Departments and individual programs – for example, witness the dramatic transformation of Applied Economics and Management over the past decade – and at University level through new ventures such as the Cornell Center for a Sustainable Future (CCSF, <http://sustainablefuture.cornell.edu>). Continued progress depends fundamentally on reinforcing the faculty in key areas, especially those concerning sustainable development, and in enhancing our competitiveness in attracting the best undergraduate and graduate students and in diffusing Cornell discoveries throughout the state, nation and world.