



Food Insecurity in Asia & the Pacific: Status, Challenges and Key Actions

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Global and the Asia-Pacific regional portrait of food security

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Basic facts of world cereal situation (million tonnes, rice in milled terms)

	2008/09	2009/10 estim.	2010/11 forecast		Change: 2010/11 over 2009/10 (%)
			1 Sep 2010*	24 Sep 2010	
PRODUCTION ¹					
World	2 285.3	2 261.0	2 237.7	2 238.6	-1.0
Developing countries	1 239.9	1 237.4	1 267.5	1 270.0	2.6
Developed countries	1 045.3	1 023.5	970.2	968.6	-5.4
TRADE ²					
World	281.5	264.8	261.1	262.2	-1.0
Developing countries	72.0	66.3	73.7	74.4	12.2
Developed countries	209.5	198.6	187.4	187.7	-5.5
UTILIZATION					
World	2 182.3	2 236.5	2 247.9	2 248.1	0.5
Developing countries	1 333.1	1 358.0	1 386.1	1 386.6	2.1
Developed countries	849.2	878.5	861.8	861.4	-1.9
Per caput cereal food use (kg per year)	152.2	152.1	152.7	152.6	0.3
STOCKS ³					
World	518.1	540.6	527.1	524.5	-3.0
Developing countries	349.8	370.1	378.8	380.9	2.9
Developed countries	168.4	170.5	148.3	143.6	-15.8
WORLD STOCK-TO-USE RATIO%					
	23.2	24.0	23.1	23.0	-4.2

Note: totals computed from unrounded data.

* Published on the FAO web site: <http://www.fao.org/news/story/en/item/44570/icode>

¹ Data refer to calendar year of the first year shown.

² For wheat and coarse grains, trade refers to exports based on July/June marketing season. For rice, trade refers to exports based on calendar year of the second year shown.

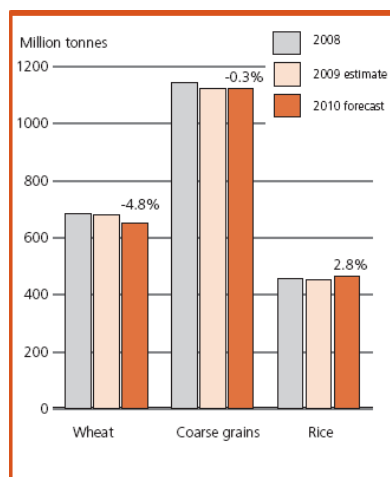
³ Data are based on an aggregate of carryovers level at the end of national crop years and, therefore, do not represent world stock levels at any point in time.

Source: FAO Crop Prospects and Food Situation, September 2010

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World cereal production by type



Source: FAO Crop Prospects and Food Situation, September 2010

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Far East cereal production (million tonnes)

	Wheat			Coarse grains			Rice (paddy)		
	2008	2009 estim.	2010 f'cast	2008	2009 estim.	2010 f'cast	2008	2009 estim.	2010 f'cast
Far East	215.7	223.6	222.7	261.3	254.1	260.0	618.4	609.4	628.7
Bangladesh	0.8	1.0	1.0	1.4	1.1	1.1	47.0	48.6	50.3
Cambodia	-	-	-	0.6	0.9	0.8	7.2	7.6	6.6
China	112.5	115.1	114.0	175.9	173.2	175.5	193.4	196.7	198.1
India	78.6	80.7	80.7	39.5	34.2	37.6	148.8	133.7	150.4
Indonesia	-	-	-	16.3	17.6	18.0	60.3	64.4	65.2
Korea Rep.of	-	-	-	0.4	0.4	0.4	6.5	6.6	6.5
Myanmar	0.2	0.2	0.2	1.3	1.3	1.3	30.5	31.0	30.8
Nepal	1.4	1.3	1.6	2.3	2.2	2.2	4.5	4.0	4.3
Pakistan	21.0	24.0	23.9	4.1	3.7	3.8	10.4	10.1	7.5
Philippines	-	-	-	6.9	7.0	7.0	17.1	15.5	17.0
Thailand	-	-	-	4.5	4.5	4.2	31.6	29.8	30.0
Viet Nam	-	-	-	4.6	4.4	4.8	38.7	38.9	39.1

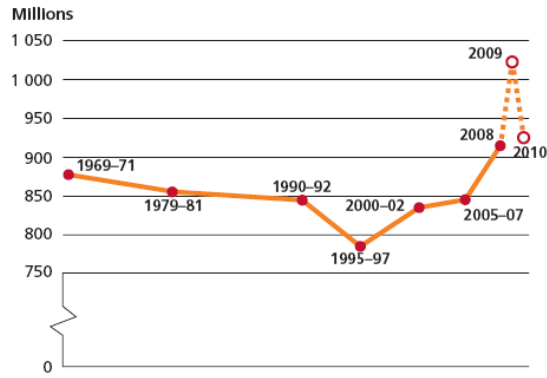
Note: Totals computed from unrounded data, '-' means nil or negligible.

Source: FAO Crop Prospects and Food Situation, September 2010

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Number of undernourished people in the world, 1969-71 to 2010



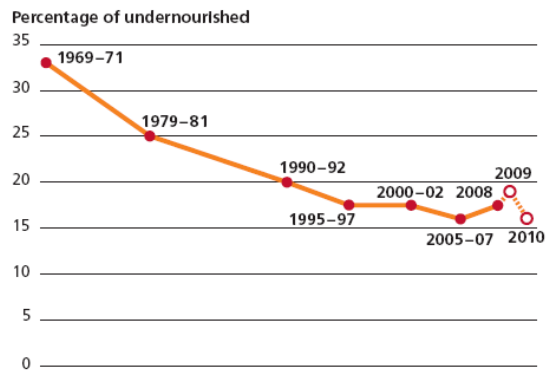
Note: Figures for 2009 and 2010 are estimated by FAO with input from the United States Department of Agriculture, Economic Research Service. Source: FAO.

Source: FAO SOFI 2010

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Proportion of undernourished people in developing countries, 1969-71 to 2010



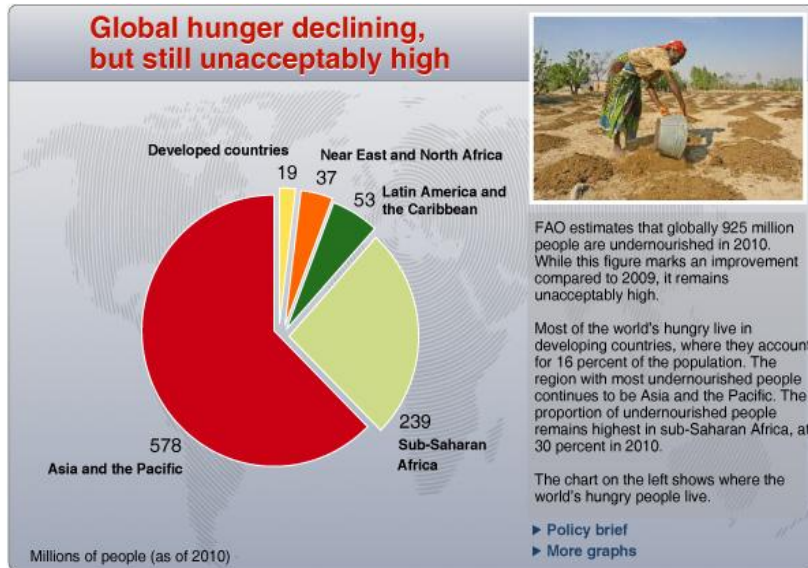
Source: FAO.

Source: FAO SOFI 2010

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Global hunger declining, but still unacceptably high

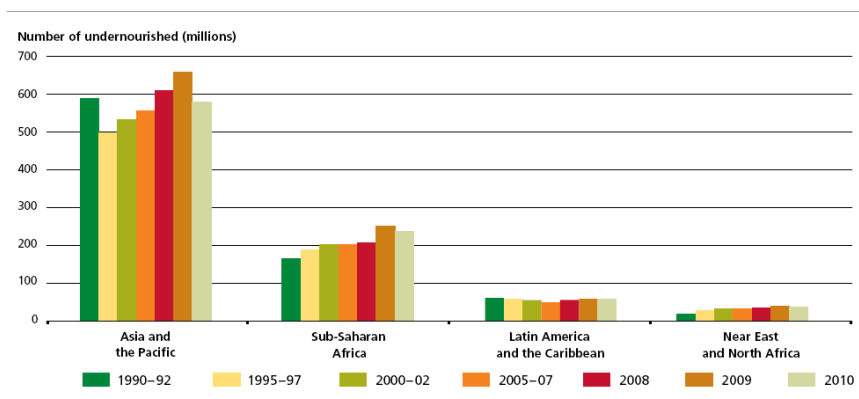


Source: FAO SOFI 2010

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Regional trends in the number of undernourished, from 1990-2 to 2010

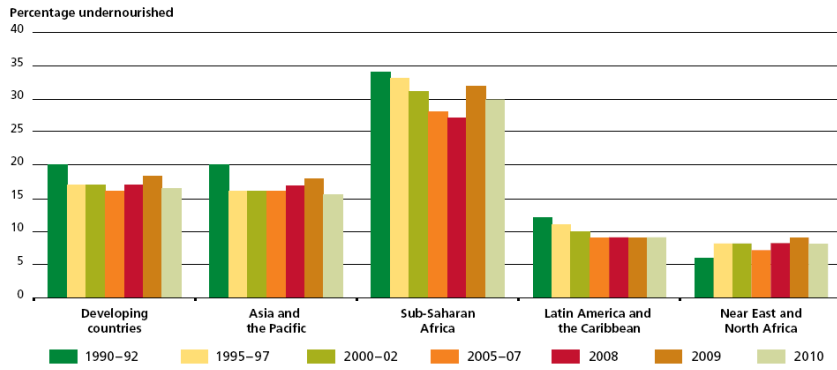


Source: FAO SOFI 2010

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Regional trends in the proportion of undernourished, from 1990-2 to 2010



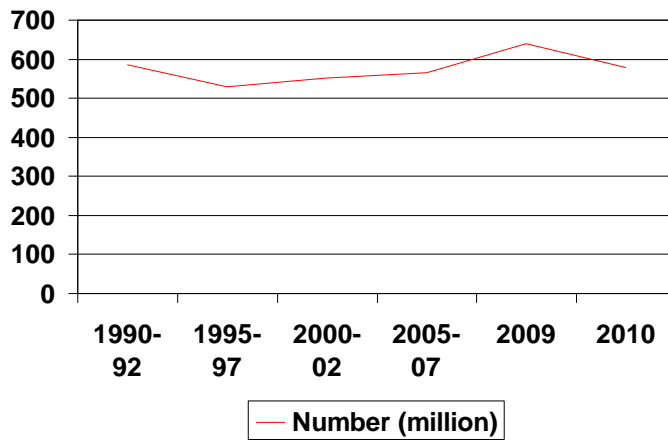
Source: FAO.

Source: FAO SOFI 2010

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Number of undernourished in the Asia-Pacific region

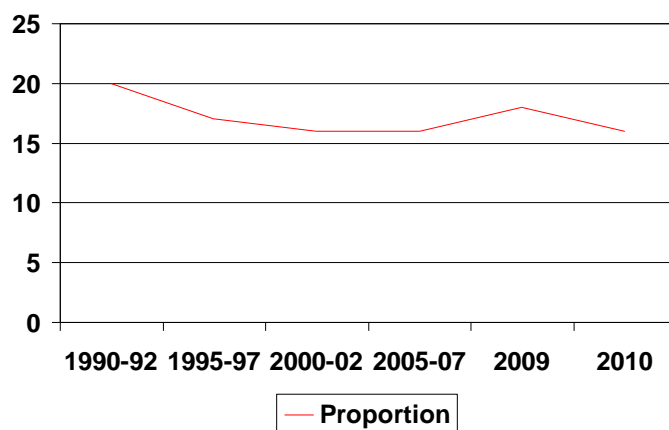


Source: FAO SOFI 2010

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Proportion of undernourished in the Asia-Pacific region



Source: FAO SOFI 2010

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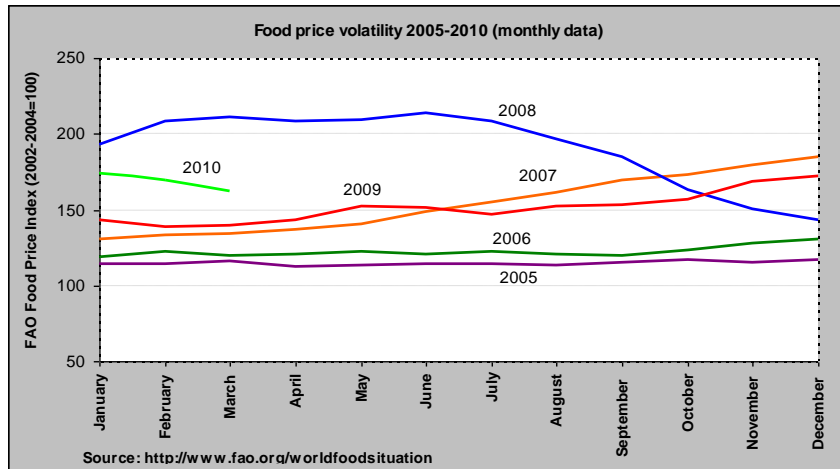


Soaring food prices and food insecurity

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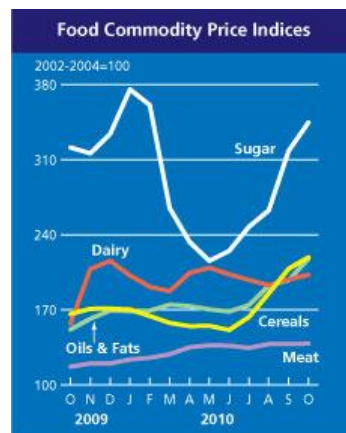
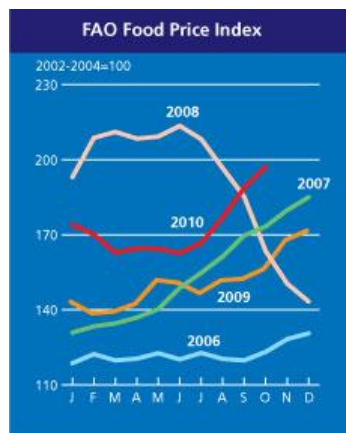
Food price changes - 2005-2010



Source: <http://www.fao.org/worldfoodsituation>

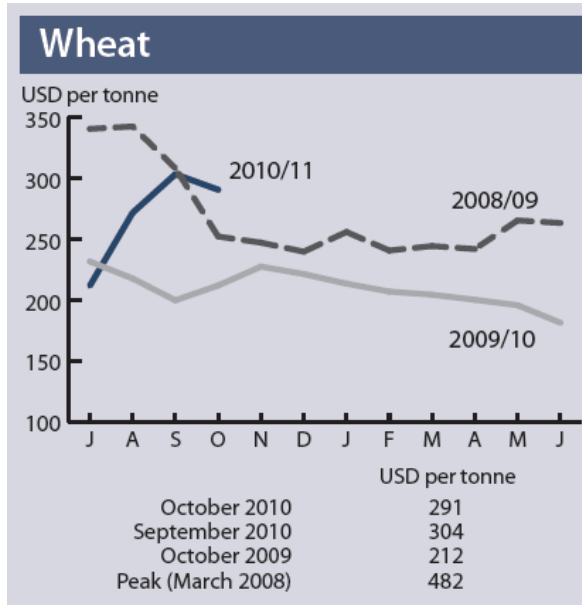
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FAO food price index declined from the peak in mid-2008, but has started to climb again since mid-2010. Food prices index remains higher than the pre-crisis level in many developing countries.



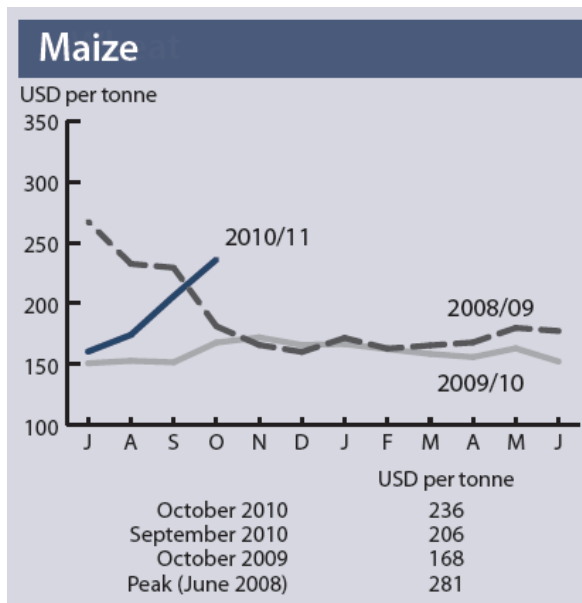
Source: FAO World Food Situation Report, November 2010

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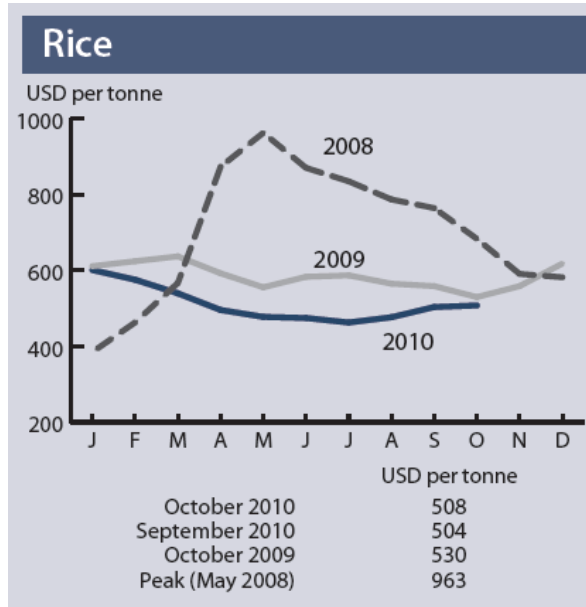
Source: FAO Global Food Price Monitor, November 2010

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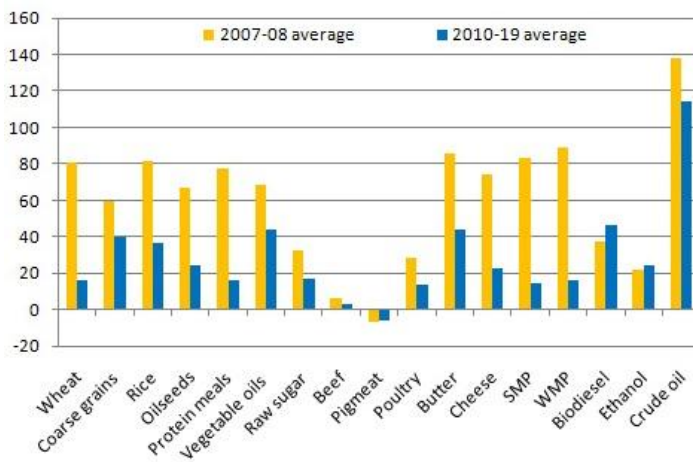
Source: FAO Global Food Price Monitor, November 2010

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Source: FAO Global Food Price Monitor, November 2010

Real commodity prices in 2007-08 relative to 1997-2006 and projection for 2010-2019



Source: FAO



Recent price changes

- In October 2010, world market price of rice and wheat were 47 and 42 percent lower than their peaks in 2008. They remain volatile and very sensitive to natural disasters and external shocks (30% price increase of bread in Mozambique resulted in riots and political turmoil).
- Wheat prices that had been increasing sharply since July ,but started to fell in October. However, they remain 60% higher than the beginning of July 2010 and 40% higher than one year ago.
- Domestic prices of wheat have increased markedly in some importing countries, such as Kyrgyzstan, Tajikistan, Mongolia and, in particular, in Afghanistan.
- Food prices would remain 15-40 % high in real term in next 10 years 2010-2019 as per the OECD-FAO Agriculture Outlook in 2010.

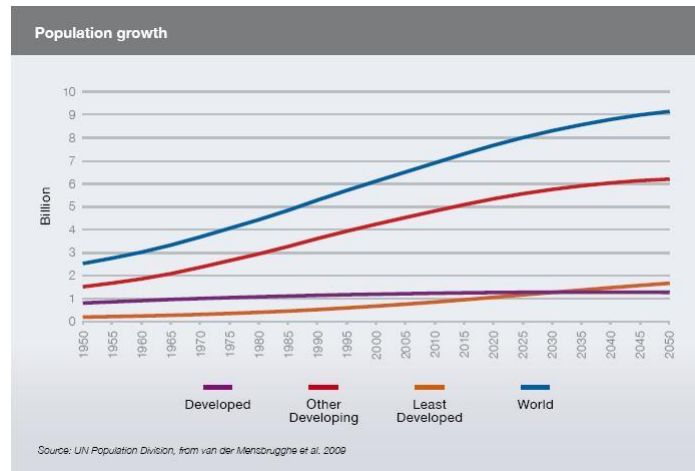
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Medium and Long-Term Challenges

- World population would reach 9.1 billion by 2050
- World food production has to be increased by 70% to meet the demand by 2050 (100% increase for developing countries)
- World cereals demand and production projected at 3 billion in 2050 (increase from 1.8 billion in 2000)
- Asia's rice export projected to increase to 50 million tones in 2050 from 30 million in 2010

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This has to be achieved under the existing constraints such as:



- Stagnation of annual food production and productivity growth in recent decade,
- Scarcity of water and land resources, and degradation of natural resources,
- Negative impact of climate changes and natural disasters,
- Competition of land and water use between food crops and energy crops,
- Increased use of food grains for non direct human consumption such as animal feeds and bio-ethanol
- Decline in investment for agriculture

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Annual crop production and productivity growth (1997-2007 average) in Asia and the Pacific

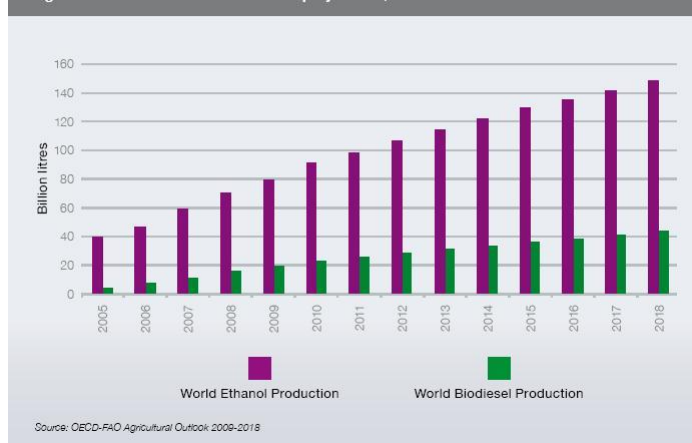


- Wheat : 0.2%/year production growth, 0.5%/year yield growth
- Rice : 0.8%/year production growth. 0.8%/year yield growth

source: FAO APRC document APRC/10/4, September 2010

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Figure 2. World ethanol and biodiesel projections, 2005-2018

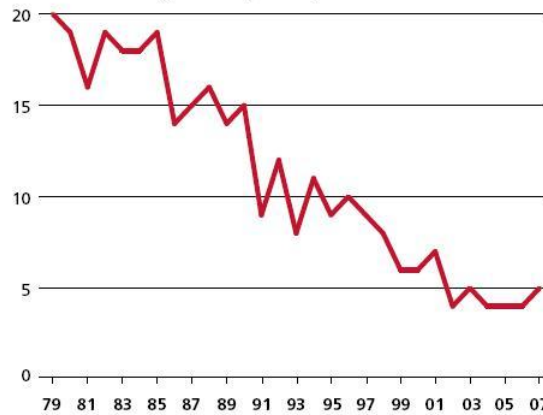


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Aid for agriculture has declined

Share of ODA for agriculture (percent)



Note: ODA = official development assistance.

Source: OECD.

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Lessons learned from Green Revolution



- (adjusted inflation), declined by 40% since 1960 which benefited consumers, especially the poor.
- World undernourished population fallen from 35% in 1970 to 17% in 2000-2002.
- Impact on soil erosion, loss of forests, water stress, widening gap between rich and poor farmers
- Decline in agricultural investment

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Changes in Factors of Production in Developing Countries of Asia Resulted from Green Revolution.

	Adoption of Modern Varieties		Irrigation million ha	Fertilizer Nutrient Use million t	Tractors million	Cereal Production million t
	Wheat M ha / % area	Rice M ha / % area				
1961	0 / 0%	0 / 0%	87	2	0.2	309
1970	14 / 20%	15 / 20%	106	10	0.5	463
1980	14 / 20%	55 / 43%	129	29	2.0	618
1990	60 / 70%	85 / 65%	158	54	3.4	858
2000	60 / 70%	100 / 74%	181	70	4.8	962

Source: FAOSTAT, July 2002 and Dr. Borlaug's estimated on modern variety adoption, based on CIMMYT and IRRI data

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Conclusions

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Priority on agricultural research and development

- FAO estimates that 80% of the production increase are projected to come from increase in yields and cropping intensity in developing countries,
- And only 20% from expansion of arable land.

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Priority actions to attain food security

- Mobilizing political will and building up global awareness and solidarity
- Increase public and private sector investment in agriculture R & D, inputs supply. Infrastructure dev., value chain dev. ,etc.
- Coping with water scarcity, OFWM, water saving technology
- Sustainable natural resource management and conservation
- Empowering small scale farmers and pro-poor policy
- Reducing post-harvest losses

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Cont.

- Adaptation and mitigation to climate change and natural disasters
- Harmonization of bio-energy development with food security, and promotion of 2nd and 3rd generation of bio-energy
- Responsible agricultural investment
- Achieving broadly-based, inclusive economic growth
- Establishing sustainable targeted safety nets for the poor and vulnerable groups, and promote gender sensitive approach
- Strengthen farm & non-farm sector linkages, and non-farm employment
- Improve ability to respond to new pressures, uncertainties and shocks
- Promote public and private sector partnership and collaboration

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.....And role of fertilizer in food security

- Limited potential of expansion of arable land, mainly in a few countries in Latin America and sub-Saharan Africa(just total increase projected 70 million ha or 5% of current area by 2050). This would lead to the intensification of land use and higher yields- and increased use of fertilizer
- The world fertilizer consumption is projected to grow by 2% from 2008 to 2012 (3.5% in South Asia and 1.9% in East Asia) with an increment of about 15 million tons.

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Cont.

- Asia and the Pacific would use 58.6 % of fertilizer consumed globally
- Nitrogen: global demand would increase annually by 1.4% till 2012, phosphate 2.0%, and potash 2.4% during the same period.
- Better targeting fertilizer application and farmer training (African farmers use only one tenth of global fertilizer use—one of the main causes of low yields).
- Environmentally sound fertilizer production and use (land degradation, water pollution, greenhouse gas emission, etc).

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