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Union Budget 2010-11: Implications for Agriculture and Allied Sectors

The Union Budget this year has aimed to focus on inclusive growth and insuring food security. The Budget proposes to follow a four-pronged strategy to spur growth in agriculture sector. The elements of the strategy are (a) agricultural production; (b) reduction in wastage of produce; (c) credit support to farmers; and (d) thrust to the food processing sector.

The Four Pronged Strategy

1. *Agricultural production:* The Budget provides Rs.400 crore for extending the green revolution to the eastern region of the country comprising Bihar, Chattisgarh, Jharkhand, Eastern UP, West Bengal and Orissa, with the active involvement of Gram Sabhas and the farming families. The Eastern part of India, which was not yet capitalized for green revolution, will have major positive impact on agricultural production by this measure, mainly benefitting the fruits and vegetables sector, as the listed States are potential producers of fruits and vegetables in the country.

The Budget proposes to organize 60,000 'pulses and oil seed villages' in rainfed areas with an outlay of Rs.300 crore during 2010-11 as part of the Rashtriya Krishi Vikas Yojana. This will provide water harvesting, watershed management and soil health facilities to enhance the productivity of dryland farming areas. The proposal is a move towards boosting production of oilseeds and pulses and will also help improving production of other dryland crops by improving irrigation management in the areas. The two commodities account for the major expenses on the food import bill of India. Vegetable oils import is set to touch 10 million tonnes this year, and despite being the largest producer, India still depends a lot on import of pulses. Hence, the country's oilseed and pulses production has been given thrust in the Budget.

Another Rs.200 crore has been provided in the Budget for conservation farming. The proposal is expected to have a positive impact on agricultural production and productivity in the long-term, particularly keeping in view impacts of climate change.

2. *Reduction in wastage of produce:* The Budget proposes to open up retail trade in the farm sector. This will help in bringing down the considerable difference between farm gate, wholesale and retail prices of farm produces by eliminating the middle men in the supply chain. The proposal is also envisaged to have a positive impact on the end pricing of farm produce, and pricings of raw materials for the food processing sector.

To improve the storage capacity of food grains, Food Corporation of India is being allowed to hire godowns from private parties for a guaranteed period of seven years. This period so far was only for five years.

3. *Credit support to farmers:* The Budget has proposed to raise the target for farm credit to Rs.3,75,000 crore for the year 2010-11 from Rs.3,25,000 crore in the current year. The period for repayment of loans under the Debt Waiver and Debt Relief Scheme is being extended by six months to June 30, 2010. The interest subvention for timely repayment of crop loans is being raised from 1% to 2%. Thus, the effective rate of interest for crop loans for farmers who repay their crop loan as per schedule will now be 5% per year. The proposals will help enhancing flow of institutional credit to the farm sector, improving overall performance of the farm sector.

4. *Impetus to the food processing sector:* The Budget proposes to set up five more Mega Food Parks in addition to the 10 already being established. The proposal is a major fillip for the food processing sector and may help in increasing exports from the sector. Besides, the SMEs involved in the sector, and the ancillary industries associated with the sector may also get benefitted.

External Commercial Borrowings will henceforth be available for cold storage, farm level pre-cooling and preservation and storage of agricultural and allied produce, marine products and meat. The proposal will enable the food processing industries to have access to long-term foreign currency fund at lower interest rates. Besides, it will allow them access to suitable and internationally competitive



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technologies, especially in cold chain facilities.

Indirect Taxes

The Budget provides:

- Project import status with a concessional import duty of 5 percent for:
 - Setting up of mechanised handling systems and pallet racking systems in 'mandis' or warehouses for food grains and sugar, as well as full exemption from service tax for the installation and commissioning of such equipment;
 - Cold storage, cold room including farm pre-coolers for preservation or storage of produce of agriculture and related sectors with full exemption from service tax to the initial setting up and expansion;
 - Processing units for such produce, with full exemption from service tax to the initial setting up and expansion.
- Full exemption from customs duty to refrigeration units required for the manufacture of refrigerated vans or trucks.
- Concessional customs duty of 5% to specified agricultural machinery not manufactured in India.
- Central excise exemption to specified equipment for preservation, storage and processing of agriculture and related sectors, and exemption from service tax to the storage and warehousing of their produce.
- Full exemption from excise duty to trailers and semi-trailers used in agriculture.

- Concessional import duty to specified machinery for use in the plantation sector, to be extended upto March 31, 2011 along with CVD exemption.
- Full exemption from excise duty to trailers and semi-trailers used in agriculture.
- Easing the cash flow position for small-scale manufacturers, who would be permitted to take full credit of Central Excise duty paid on capital goods in a single installment in the year of their receipt. Further, they would be permitted to pay Central Excise duty on a quarterly, rather than monthly, basis.
- Service tax exemption for:
 - testing and certification of agricultural seeds;
 - transportation of cereals, and pulses by road / rail.

The tax reductions proposed above will help in enhancing mechanisation of Food Supply Chain, thus reducing wastage, and shortening delivery time. Through these proposals the food processing industries is likely to get a major fillip in backward integration.

In addition, another 25 per cent of the plan allocations have been devoted to the development of rural infrastructure, and a number of proposals have been made in the Budget, under Rural Development, Unorganised Sector Development and Social Welfare are envisaged to impact the farm sector and agribusiness positively.

Reference:

➤ Union Budget 2010-11, Government of India

Agriculture and Climate Change: Copenhagen Summit – 2009

Despite technological advances, such as improved varieties, genetically modified organisms, and irrigation systems, weather is still a key factor in agricultural productivity. The IPCC Fourth Assessment Report on Climate Change (2007) concluded that climate change impact that include increased frequency of heat stress, drought and flooding events reduce crop yields and livestock productivity. Climate change and variability also modify the risks of fires, pest, and pathogen outbreaks, with negative consequences for food, fibre and forestry.

While these have been claimed to be the likely impact of climate change on agriculture, there are also research studies which show that agriculture has potential for crucial early action on mitigation. It has been estimated that agriculture is a major source of green house gases (GHG), contributing 14% of global emissions. When combined with related land use changes, including deforestation (for which agriculture is a major driver), this share becomes more than one third of GHG emissions. It has also been estimated that agricultural emissions in developed countries increased by 32%, and are expected to increase further. Reducing and removing emissions from this sector, while ensuring food security and

enabling economic growth, became an urgent component of global effort to achieve the ultimate objective of the UN Framework Convention on Climate Change (UNFCCC).

Therefore a draft agreement forming an international working group to reduce global warming emissions from agriculture, emerged from the talks in Climate Change Conference in Copenhagen, held in December 2009, a sign of the growing importance of agriculture and climate change debate.

The Copenhagen Accord endorses the decisions of the Ad hoc Working Group on Long-term Cooperative Action that opens the door for agriculture. The text on agriculture recognises the impact of climate change on food security, the need for adaptation and mitigation in agriculture, and requests the Subsidiary Body for Scientific and Technological Advice (which provides advice to the UN Climate Change Conference on scientific, technological and methodological matters) to establish a programme of work on agriculture. The next year or two will see a flurry of activity on agriculture, to bring it firmly into the negotiations.

State of the agriculture text at COP at the close of the session, December 18, 2009.

Draft agriculture COP15 decision

Cooperative sectoral approaches and sector-specific actions in agriculture [The Conference of the Parties], Reaffirming the objective, principles and provisions of the Convention, in particular its Article 2, Article 3, paragraphs 1 and 5, and Article 4, paragraph 1(c),

Bearing in mind the need to improve the efficiency and productivity of agricultural production systems in a sustainable manner,

Recognizing the interests of small and marginal farmers, the rights of indigenous peoples and traditional knowledge and practices, in the context of applicable international obligations, and taking into account national laws and circumstances,

Recognizing that cooperative sectoral approaches and sector-specific actions in the agriculture sector should take into account the relationship between agriculture and food security, the link between adaptation and mitigation and the need to safeguard that these approaches and actions do not adversely affect food security,

[Affirming that cooperative sectoral approaches and sector-specific actions in the agriculture sector should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade,]

Decides that all Parties, with respect to the agriculture sector and taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances, [shall][should] promote and cooperate in the research, development, including transfer, of technologies, practices and processes that control, reduce or prevent anthropogenic emissions of greenhouse gases, particularly those that improve the efficiency and productivity of agricultural systems in a sustainable manner and those that could support adaptation to the adverse effects of climate change, thereby contributing to safeguarding food security and livelihoods;

[Affirms that cooperative sectoral approaches and sector-specific actions in the agriculture sector should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade;]

Requests the Subsidiary Body for Scientific and Technological Advice to establish, at its thirty-second session, a programme of work on agriculture to enhance the implementation of Article 4, paragraph 1(c), of the Convention, taking into account paragraph 1 above;

Invites Parties to submit to the secretariat, by 22 March 2010, their views on the content and scope of the work programme;

Requests the secretariat to compile these views into a miscellaneous document for consideration by the Subsidiary Body for Scientific and Technological Advice at its thirty-second session.

Reference:

➤ Copenhagen Summit 2009, Denmark

Sugar – Outlook

Sugar prices have been increasing sharply as a result of negative production prospects in Brazil, and expectations of surging imports by India, in the current sugar year.

Production

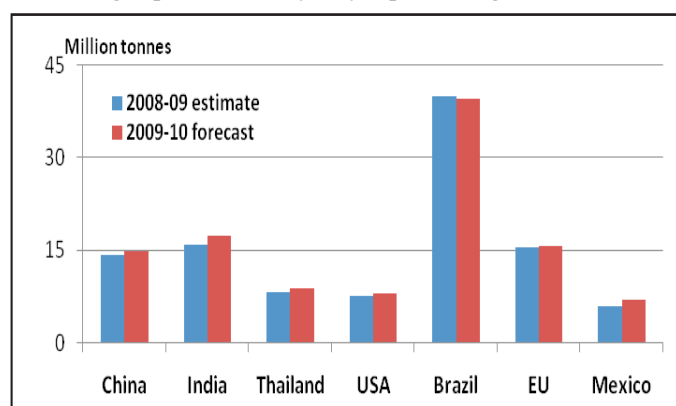
According to the latest forecasts by FAO, after a decrease in production in 2008-09, world sugar production is expected to rise by 3.3 percent to 159.6 million tonnes in 2009-10. The growth is attributed mainly to favourable weather conditions and higher prices, which may encourage the use of fertilizers and other inputs. The bulk of the expansion is expected to take place in the developing countries, where production is forecast to grow by 3.7 percent, as against the growth of 1.8 percent in the developed countries. Despite a larger world production, the deficit between production and consumption is predicted to remain around 3 million tonnes.

World sugar production

	2008-09	2009-10
	million tonnes	
Asia	51.6	54.6
Africa	10.8	11.2
Central America	11.8	12.6
South America	46.3	46.4
North America	7.1	7.6
Europe	22.3	22.3
Oceania	4.9	5.0
World	154.7	159.7
Developing countries	117.3	121.5
Developed countries	37.4	38.2

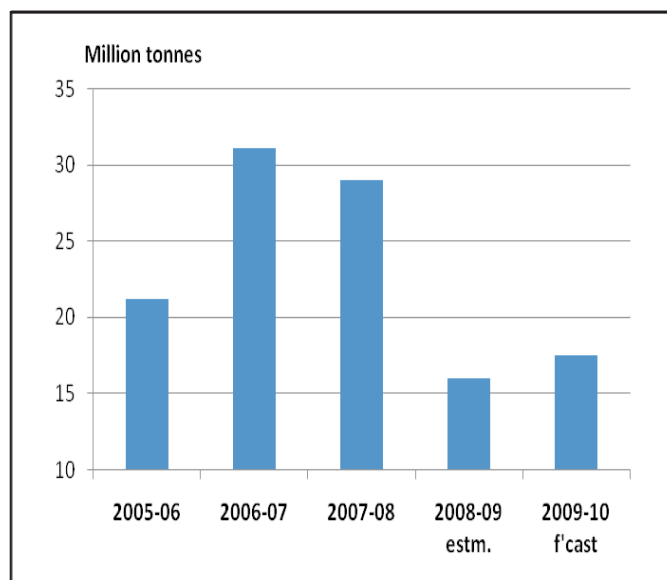
Source: FAO, December 2009

Sugar production by major producing countries



Source: FAO, December 2009

Sugar production in India



Source: FAO, December 2009

Consumption

World sugar consumption in 2009-10 is forecast to rise to 162.6 million tonnes, 1.1 percent more than the consumption in 2008-09. Sugar intake in the developing countries is set to expand only moderately to 113 million tonnes, accounting for 69 percent of global consumption.

Trade

World sugar imports are forecast to reach 52 million tonnes in 2009-10 (October-September), 5 percent more than in the previous season, driven largely by the need to replenish stocks or/and offset production shortfalls. India is projected to be the main reason for growth in world sugar imports in 2009-10. However, exact forecasts at the early stage of the season is subject to much uncertainties, such as an unexpected easing of world sugar prices or depreciation of US Dollar against other major currencies. Imports are also projected to increase in the EU, Russian Federation and USA, and projected to decrease in China, Malaysia and Indonesia.

Despite lower than expected production, global exports of sugar is anticipated to rise in 2009-10 on account of the exports performance by Brazil, the world's largest exporter, which is expected to increase its exports by 5 percent in the current year, over the previous year. Owing to better production prospects and strong import demand by India, exports from Thailand, the world's second largest sugar exporter, are also expected to increase by 3.5 percent, to a level of 5.2 million tonnes. Exports from Australia, Cuba, Guatemala and South Africa are also foreseen to increase due to high world sugar prices.

World sugar market at a glance

	2007-08	2008-09 estm.	2009-10 f'cast	Change: 2009-10 over 2008-09
	<i>million tonnes</i>			%
WORLD BALANCE				
Production	167.6	154.7	159.7	3.3
Trade	47.3	49.2	52.1	5.9
Utilization	158.4	160.9	162.6	1.1
Ending stocks	79.9	72.4	68.4	-5.6
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	22.7	23.0	22.9	-0.1
LIFDC (Kg/year)	13.2	13.4	13.4	-0.1
World stock-to-use ratio (%)	50.4	45.0	42.1	
ISA Daily Price Average (US cents/lb)	2007	2008	2009*	Change: Jan-Nov 2009 over Jan-Nov 2008
	10.08	12.80	17.66*	37

*January – November 2009

Source: FAO, December 2009

References:

➤FAO

Export Potential of Indian Systems of Medicine (ISM)

Recently there has been a growing shift in the demand for herbal medicine in place of synthetic medicine. Complementary and Alternative Medicine (CAM) referred to as Traditional Medicine include Naturopathy, Hypnosis, Homeopathy, Traditional Chinese Medicine, Chiropractic, Acupuncture, Ayurvedic Medicines, Meditation, Yoga, Unani, Biofeedback, and therapies based on diet. An estimate of WHO demonstrates that about 80% of world population depends on natural products for their health care.

Global Scenario

The global herbal industry is valued at over US\$ 60 billion. Current global market share of herbal medicine, according to WHO, is around 30%. The main product areas within the herbal industry in an international context include:

- Pharmaceuticals – which is further divided into medicinal and aromatic plants, medicinal and vegetable saps and extracts, and vegetable alkaloids valued at over US\$ 40 billion;
- Spices and Herbs – valued at US\$ 5.9 billion in 2008, and growing at 4.4% per year;

- Natural Cosmetics – valued at about US\$ 7 billion in 2008;
- Essential Oil – valued at about US\$ 4 billion.

Traditional Medicine in India

India has one of the world's richest medicinal plant heritages. With around 2.4% of world's area, India has over 8% of world's biodiversity. In India, around 25,000 effective plant based formulations are used in traditional and folk medicines. Presently about 1000 single drugs and about 3000 compound formulations are registered in the country. Herbal industry in India uses about 8000 medicinal plants. It is estimated that more than 1.5 million practitioners uses traditional medicinal system for health care in India. An estimated over 7,800 manufacturing units are involved in the production of natural health products and traditional plant based formulations in India.

Indian Systems of Medicine (ISM) is classified into:

- Ayurveda
- Siddha
- Unani
- Folk Medical Traditions

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Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was created in March 1995, and has been re-named as Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy (AYUSH) in November, 2003 with a view to providing focused attention to development of Education & Research in Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homoeopathy systems.

India has been exporting mainly in the form of crude drugs and extracts. However, in the recent years, exports of finished products in dosage forms are also increasing.

Status of ISM

Facilities	Ayurveda	Unani	Siddha	Yoga	Naturopathy	Homoeopathy	Amchi	Total
Hospitals	2402	262	277	12	171	234	2	3360
Beds	43751	4671	2596	495	5677	10933	32	68155
Dispensaries	13913	1019	488	70	238	5910	131	21769
Registered Practitioners (as on 2007)	453661	46558	6601		888	217860		725568
No. of Colleges	242	40	8		10	185		485
Admission Capacity (incl. UG and PG courses)	12216	1817	460		385	14509		29387
Manufacturing Units	7900	322	290			685		9197

Source: AYUSH

Trade in ISM

India's exports in traditional healthcare products besides ISM, also include significant portion of medicinal plants and extracts. Amongst ISM, both in bulk and in formulation, Ayurvedic system of medicines were the leading exported category during the period 2006 to 2009.

Major items of medicinal plants and extracts that are being exported from India include psyllium husk, saps and extracts of opium, cambodge extract, henna powder, senna leaves, sandalwood chips and pods, and karaya gum.

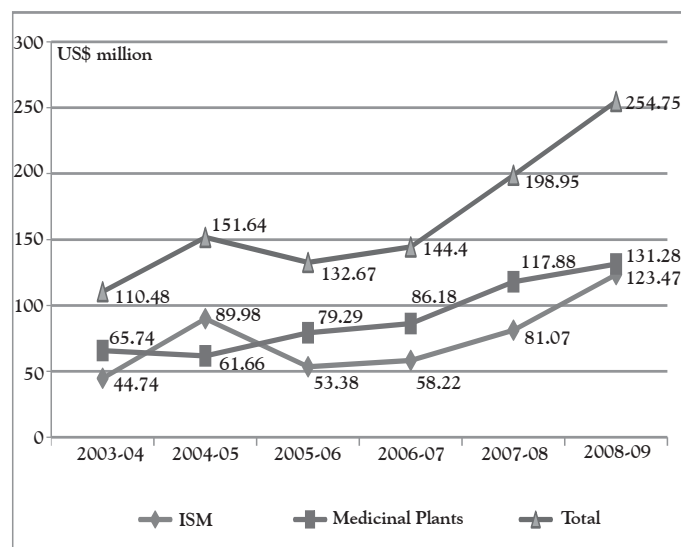
Exports of traditional or alternative medicine including ISM, crude drug and extracts from India in the year 2008-09 stood at US\$ 335.6 million registering a 27.7% growth over the previous year.

Exports of ISM, crude drug and extracts from India

Product	Value (US\$ mn)			Growth (%)	
	2006-07	2007-08	2008-09	2007-08	2008-09
Exports of ISM (in bulk)	20.27	31.48	52.11	55.3	65.5
Exports of ISM (for retail sale)	37.81	49.54	70.25	31.0	41.8
Exports of Crude Drug & Extracts	157.1	181.67	213.2	15.6	17.4
Total	215.18	262.69	335.56	22.1	27.7

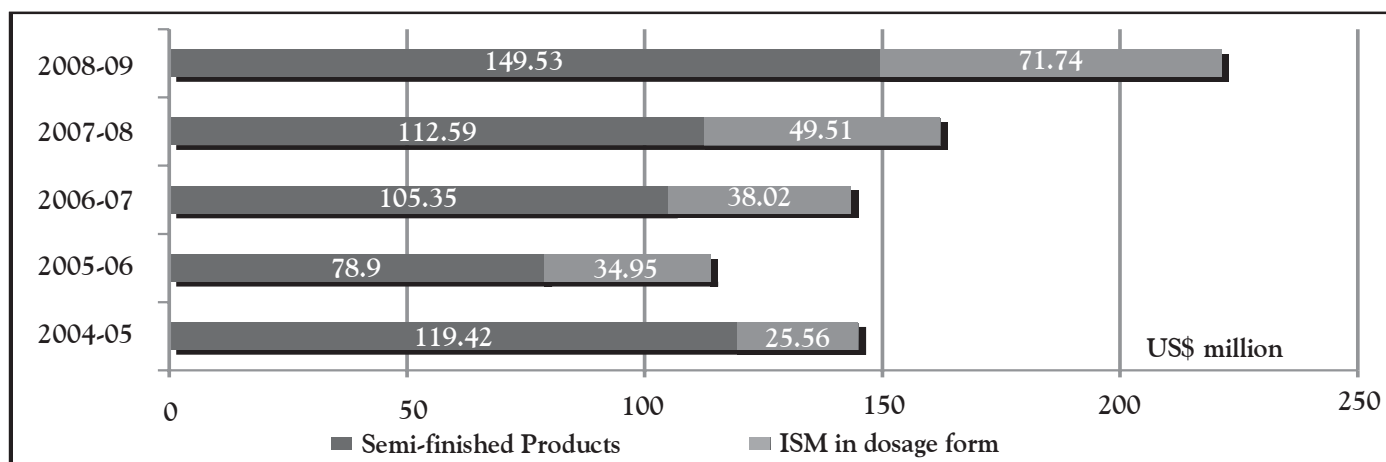
Source: DGCIS

Export performance of India in medicinal plants and ISM



Source: Exim Bank Research, DGCIS

Russia is the leading importing country of ISM from India, followed by Ukraine, Nepal, Kazakhstan and UAE. Among ISM, Ayurvedic medicines are the leading imported item. USA is the leading importer of herbal extracts from India, followed by China, Germany, Italy, Japan and Russia. USA is also the largest importer of medicinal plants from India, followed by Pakistan, Germany, UK and UAE.

Exports of semi-finished and finished forms (in dosage) of traditional medicines from India


Source: Exim Bank Research, DGCIS

Challenges

Despite a steady performance over the years, India's export performance is insignificant in front of the global herbal market place. India accounts for only 1.6% (estimated at ~US\$ 1 billion worldwide) of global herbal market, whereas the Chinese herbal market is estimated at ~US\$ 19 billion worldwide accounting for over 30% of the world herbal market.

Some of the challenges faced by the Indian Systems of Medicine in making a mark for itself at the export markets are mainly related to: inadequate standardization of Ayurvedic finished products on quality parameters which involve the Finished Product Specifications (FPS); inadequate claim support studies, whether clinical or experimental and the safety of the preparations through toxicity studies; inadequate application of basic manufacturing standards or Standard Operating Procedures (SOPs) of various Ayurvedic products; inadequate scientific documentation; inadequate facilitating regulations for the Indian medicinal products in most of the foreign countries; inadequate government agencies to deal with Export Certification of Ayurveda and other herbal products; and inadequate Intellectual Property Rights (IPR) implementation in the system.

Prospects and Outlook

In the recent years, there has been a boom in the herbal industry globally. According to WHO, demand for medicinal plants by the year 2050 is estimated at ~US\$ 5 trillion. Demand for nutraceuticals and functional food has been rising in developed markets, particularly in USA, Europe and Japan. Nutraceutical market in USA is estimated at about US\$ 80 billion to US\$ 250 billion, with a similar market size in Europe, and Japanese nutraceutical market is estimated at ~US\$ 1.5 billion. Global

market for Functional Food is pegged at ~US\$ 60 billion to US\$ 80 billion, growing by around 10% per year. Indian nutraceutical market is estimated to be around ~US\$ 270 million growing at a CAGR of 18%, against the CAGR of 7% witnessed in global market.

India is one of the world's twelve leading biodiversity centers, with the presence of over 45,000 different plant species; out of this about 15,000-20,000 plants have good medicinal properties, of which only about 7,000-7,500 are being used by traditional practitioners. Indian herbal medicine market has been growing at a steady pace of between 15% and 20% every year. The market size of domestic herbal industry is currently estimated at over Rs. 5000 crore. According to a study the industry is envisaged to grow at a level of Rs. 5,500 crore after 2010 Commonwealth Games (CWG), and Ayurvedic industry alone is envisaged to earn a business of Rs. 500 crore during the Games. The study also envisages that Indian Spa industry to receive an investment of US\$ 35 billion over the next 3 to 4 years.

However, to be a global supplier of herbal medicines conforming to international specifications, India needs to process medicinal plants in an increasing level of scientific, economic and safe way by adapting GAP, GLP and GMP; increasingly undertake adequate pharmacological and clinical studies to ascertain product efficacy and safety; increasingly standardize products to ensure uniformity; protect and maintain IPR in the domains of herbals and other natural product development technologies; and undertake documentation research.

References:

- AYUSH
- Industry Sources

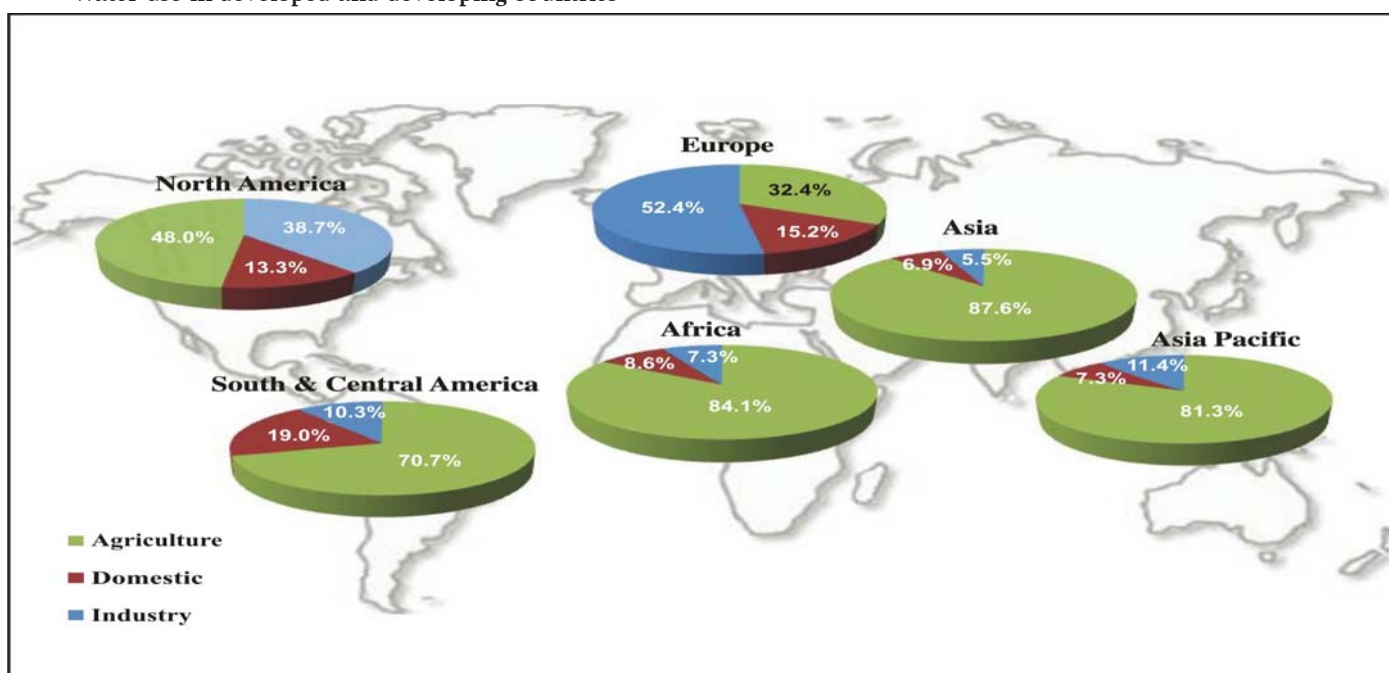
Water and Irrigation Management for Food Security – Focus Asia

The world contains an estimated 1,400 million cubic km of water. Only 0.003% of this volume, about 45,000 cubic km, is what is referred to as “fresh water resources” – i.e., water that theoretically can be used for drinking, hygiene, agriculture and industry. The availability of water varies dramatically by region.

Water is important for food security. Erratic rainfall and seasonal differences in water availability can cause temporary food shortages; floods and droughts can cause some of the most intensive food emergencies.

water sources, polluting water systems, and contributing to soil infertility and erosion. Irrigation must be managed carefully to avoid or reverse environmental damage, simultaneously increasing the productivity of agriculture. A variety of simple and affordable water management techniques can help in increasing yields and reduce vulnerability to erratic rainfall or drought, particularly for the small farmers; for example, building earth barriers or furrows that channel rainwater runoff to plants or rows of plants (in situ conservation); or capturing water from a catchment area and to direct it to the field (flood irrigation);

Water use in developed and developing countries



Source: FAO, 2009

Agriculture is by far the biggest user of water, accounting for almost 70% of all withdrawals, and up to 95% in developing countries. The water needed for crops amounts to 1,000 cubic meters -3,000 cubic meters per tonne of cereal harvested. Globally, rainfed agriculture is practiced on 80% of cultivated land and supplies more than 60% of the world's food. However, irrigation remains the heart of rural growth in developing nations. Studies reveal that irrigation can increase yields of most crops by 100% to 400%. Irrigation is cost extensive and often beyond the means of small-scale farmers in many developing countries. Irrigation can also lead to waterlogging or salinization. In spite of these challenges, irrigation holds the most promise for increasing food productivity and security, provided it is managed efficiently and combined with other inputs such as fertilizers and improved seed varieties. Some of the irrigation techniques practiced commonly in small-scale farming is *Surface Irrigation*, *Sprinkler Irrigation* and *Localised Irrigation*.

Currently, agriculture is under intense pressure to control depletion of environment, especially as agriculture is depleting

or to prepare for dry periods, collecting rainwater in reservoirs, ponds and other basins (storage for supplementary irrigation).

Water harvesting - Irrigating crops, pastures and trees with rain runoff can significantly improve yields. Techniques vary from large-scale water catchment to simple mounds of earth that trap rain runoff at the base of trees. Studies throughout Africa have shown that rainwater harvesting can increase agricultural yields up to three times. Not only does it provide more water for crops, but it also helps to recharge groundwater and to reduce soil erosion.

Motorized pumps - Low-priced, reliable motorized pumps have revolutionized irrigation. They are being used more and more by small-scale farmers to increase their food production.

Treadle pumps - These simple and inexpensive human-powered pumps are used widely by small-scale farmers in many Asian and African countries.

Irrigation in Asia

Asia accounts for 70% of the world's irrigated area making irrigation an 'important business' in the continent. Although

there is not much scope for expanding the irrigated area, almost all countries in Asia report some difference between the area of land with potential for irrigation and that currently with infrastructure installed. For example, in India, reported irrigation potential is 113 million hectares (mha), against an actual irrigated area of 57 mha.

Emerging trends in Asian irrigation

Shrinking of large-scale surface irrigation - In Asia, particularly in South Asia, the area of land irrigated by large-scale surface schemes has been declining, mainly due to poorly maintained infrastructure, which is not in a position to cater to farmers' needs. The Indian sub-continent has the largest area under surface irrigation. However, small surface structure, such as tanks in southern India, Rajasthan, and *ahar-pyne* system in Bihar, have been dwindling in size and number, since 1950s.

Booming of groundwater and pumped irrigation – Increasing numbers of smallholder farmers are resorting to atomistic irrigation i.e., watering their crops by means of a mechanical pump, well, and rubber or PVC pipes. This kind of 'water scavenging' irrigation has been creating increasing pressure on groundwater. In India, more than 60% of irrigation comes from atomistic pump irrigation.

Under-performance and low sustainability of PIM/IMT programmes – The strategies of Participatory Irrigation Management (PIM), and Irrigation Management Transfer (IMT) has not been able to produce adequate results in terms of performance and sustainability, largely due to challenges on account of infrastructure, management and operation.

Climate change and variability – Potentially, the greatest environmental threat is climate change in Asia, as the effects are already visible in forms of increased incidence of drought, variable monsoons, and extreme events associated with El Niño. According to a report by Intergovernmental Panel on Climate Change (IPCC) in 2008, the increased evaporation from climate change may increase the amount of irrigation water requirement in Southeast Asia by around 15%. Other studies forecast that the demand for water to irrigate crops in arid and semi-arid parts of Asia will rise by 10% for every 1°C rise in temperature.

Coping up with Asia's food and water demand

According to estimates by the FAO and International Water Management Institute (IWMI), agricultural production will need to increase by 70% globally, and by 100% in developing countries, in order to cope with the 40% increase in world population by 2050. Further, farmers will need to divert between 10% to 57% more water to agriculture in South Asia and between 16% to 70% in East Asia by 2050. Cropped areas that are needed to be expanded range from 3% to 18% for South Asia and from 10% to 34% for East Asia.

According to the projections, under a business-as-usual (BAU) scenario, India's water demand is estimated to increase upto 32% by 2050. By 2050, groundwater withdrawals are projected to increase by 84% from the level that prevailed during the year 2000. As a result, groundwater levels in 10 major river basins would decline considerably. However, groundwater use efficiency would improve during this period. Gross irrigated area in the country is projected to increase from 76 mha to 117 mha during 2000 to 2050.

While increasing yields from rainfed agriculture and boosting food trade could contribute to meeting Asia's future food demands, increasing production from irrigated agriculture remains a necessity. There is substantial potential for improving the irrigation capability in the continent by adapting the following strategies:

- Modernizing yesteryear's surface irrigation schemes for future needs – benefits may be accrued by redesigning, operating and managing them for a range of uses and to meet environmental targets. For example, surface irrigation schemes could be used to recharge aquifers or fill intermediates storage structures, such as farm ponds, providing farmers with greater reliability and control.
- Supporting farmers' initiatives – There are opportunities for investors to identify successful initiatives and direct funds towards schemes emulating farmers' methods. New models are needed to be established for managing groundwater in areas where pump-based atomistic irrigation has largely replaced centralized surface irrigation.
- Looking beyond conventional PIM/IMT Systems – Outsourcing irrigation services, creating public-private partnerships or providing incentives for irrigation officials to act as entrepreneurs in publicly managed irrigation operations may help in mobilizing funds, increasing efficiency and improving the provision of water services in PIM and IMT systems.
- Expanding capacity and knowledge – Investments are required towards training staff, attracting new talents through forward-thinking curricula and realistic remuneration packages, as well as capacity building of all stakeholders. Initiatives might include updating courses in universities, conducting in-depth training workshops for farmers and irrigation officials, or revamping irrigation departments to empower their workforce.
- Investing outside the irrigation sector – Framing policies and programmes to ensure external influences on the water sector through proper understanding and planning.

References

- FAO
- IWMI

Coconut Industry in India: Overview

Around ninety percent of total world coconut production occurs in the Asia Pacific region. Coconuts have, for a very long time, been an important crop in this region and play an important part in the local economy and culture. The three main producers, Indonesia, the Philippines and India account for around 75 percent of world coconut production. Currently, global production of coconuts stands at around 61 million metric tonnes. The coconut sector plays a significant economic role in India.

Production

India is the third largest producer of coconuts in the world. Production of coconut expanded in India in the late 1980s to mid-1990s, but has been fairly stagnant since then. The productivity has also been declining in the recent years.

Coconut production and productivity of India, Philippines and Indonesia

	Area (in million hectares)	Production (in million tonnes)	Productivity (kg/ha)
India	1.94	10.89	5615
Indonesia	2.95	19.50	6610
Philippines	3.38	15.32	4533

Source: FAOSTAT 2009

Coconut area, in India, is distributed in 18 states and three Union Territories, and fall under different agro-climatic conditions. Kerala is largest producer of coconut in India, followed by Tamil Nadu and Karnataka. The coconut industry is predominantly a smallholder industry in India. Over 90% of coconut area harvested in the country is held by smallholders. For smallholders coconut is a cash crop. Fresh coconuts are sold in local markets, and are also processed in village operations to produce coconut oil and meal. However, copra or whole coconuts sold to larger processors is the main income source for most smallholders.

State-wise estimates of area and production of coconut in India

States /Union	2006-2007			2007-2008		
	AREA ('000 Hectares)	Production (Million nuts)	Productivity (Nuts/ha)	AREA ('000 Hectares)	Production (Million nuts)	Productivity (Nuts/ha)
Andhra Pradesh	101.9	1326	13017	101.3	1119.0	11047
Assam	19.0	153.0	8053	19.0	136.0	7158
Goa	25.5	127.0	4969	25.5	128.0	5004
Gujarat	16.4	138.0	8433	16.4	138.0	8433
Karnataka	40.10	1625.0	4052	405.0	1635.0	4037
Kerala	870.9	6054.0	6951	818.8	5641.0	6889
Maharashtra	21.0	175.0	8338	21.0	175.0	8338
Nagaland	0.9	0	222	0.9	0	222
Orissa	51.0	276.0	5408	51.0	276.0	5408
Tamil Nadu	374.6	5430.0	14495	383.3	4968.0	12959
Tripura	3.3	7.0	2121	5.8	11.0	1966
West Bengal	25.1	359.0	14307	28.6	356.0	12430
A & N Islands	21.4	89.0	4159	21.6	81.0	3731
Lakshadweep	2.7	53.0	19630	2.7	53.0	19630
Pondicherry	2.1	28.0	13286	2.2	27.0	12091
All India	1936.8	15840.4	8179	1903.1	14743.6	7747

Source: Coconut Development Board, India

Trade

The bulk of the production in India is destined for the local market. The size of the domestic market in India is around Rs. 830 crores. Despite being the third largest producer, India accounts for only 0.3% of world exports of coconuts and edible coconut products. Refined coconut oil is the largest exported item from India. Bangladesh is the leading export destination for refined coconut oil exported from India, followed by UAE and Saudi Arabia.

Exports of coconut and coconut products from India

Item	2006-07		2007-08		2008-09	
	Qty (tonnes)	Val (US\$ million)	Qty (tonnes)	Val (US\$ million)	Qty (tonnes)	Val (US\$ million)
Coconut desiccated	312.1	0.16	1454.7	0.68	2173.3	1.00
Coconut fresh	1043.4	0.36	2838.2	0.92	6814.5	2.04
Coconut ,dried	622.4	0.53	982.2	0.62	1787.1	1.35
Other coconuts excl. fresh & dried	758.6	0.53	3111.6	1.89	8007.1	4.10
Coconut (copra) crude oil & fractions	92.1	0.11	84.6	0.11	53.1	0.07
Coconut (copra) refined oil & fractions	3584.7	4.97	6732.3	8.11	9801.5	12.65
Residue & Cakes of coconut or copra	65.2	0.02	218.2	0.06	199.5	0.06

Source: DGCIS

A large number of coconut products are manufactured in India, which have both domestic and export market.

Coconut Products manufactured in India

Tender Coconut Water	Coconut Toddy
Copra	Coconut Shell based Products
Coconut Oil	Coconut Wood based Products
Raw Kernel	Coconut Leaves
Coconut Cake	Coir Pith

The two broad varieties of copra are produced in India: milling copra and edible copra. India produces about 6.5 lakh MT of milling copra and 2 lakh MT of Ball copra. The major exports of copra from India are to Bangladesh and Nepal.

Coconut oil is used for, both edible and non edible purposes. It is also consumed in various industrial applications such as soap, shampoo, and detergents. Virgin coconut oil is used in therapeutic uses such as body and massage-oil and is greatly in demand in USA and Europe. A portion of coconut is also used in the making of ice creams, biscuits, and chocolates. Annual production of coconut oil is around 4.85 lakh tonnes, and is mostly exported to the Gulf countries. Besides, packaged tender coconut water is also exported mostly to the Gulf countries.

Desiccated coconut (DC) is often used as a substitute to grated coconut in food preparations such as curries, cakes, sweets and chutneys. Total production of DC is about 50,000 MT, mainly concentrated in Karnataka and Tamil Nadu.

Coconut Shell is used for manufacturing a variety of products of commercial importance including activated carbon. Shell based activated carbon is extensively used in the process of refining and bleaching of vegetable oils and chemical solutions, water purification, recovery of solvents, and recovery of gold. It is used in gas masks and a wide range of filters for war gases and nuclear fall outs. There are around 18 medium sized companies in India involved in manufacturing activated carbon. The total production of activated carbon in India is around 45000 MT / annum. The present export is directed at USA, UK, Germany, Japan, France, and averages around Rs 1500 million.

Challenges faced by Indian coconut industry

Some of the challenges faced by the Indian coconut industry include: few number of big players' involvement in the sector to

cater to the demand of international markets; inadequate exposure to the international market and its specific requirements; weak financial status of the small and tiny exporters who are unable to take up effective export promotion programmes; price disadvantages related to high cost of production; highly disorganized and fragmented supply chain; lack of market penetration; and tariff and freight disadvantage with regard to exports.

Prospects for coconut products

A number of factors are likely to shape the prospects for the coconut sector in the coming years. The most important at global level are likely to be:

- global demand for vegetable oils, which in turn will be driven by the effect of population and income changes on demand for food, and (largely policy) driven demands for biofuels;
- competition from other vegetable oils in world market;
- development of, and consumer acceptance of, newer coconut products, in domestic and world markets, such as 'virgin' or cold pressed coconut oil, or organic coconut cream;
- domestic demands for coconut products in producing countries, including biofuel demand; and
- development of coconut timber technology and markets.

Prospects for India:

Indian coconut products are rated as premium quality products in the world. Coconut oil has a huge potential in Gulf, Europe, and America, due to presence of large ethnic Indian population. Activated carbon has been increasing its share in the bio-energy segment and the demand from USA, UK, Germany, France, and Japan has been increasing. Processed and packaged tender coconut water has an increasing demand in Gulf countries and UK. China is also a growing market for coconut and its various products. Russia is emerging as one of the major buyers of coconut oil and virgin coconut oil. Germany is an emerging market particularly for desiccated coconut powder, and coconut milk powder. Handicrafts, ice cream cups and spoons made from coconut shell are increasingly being exported to European countries and hold good potential.

References

- Coconut Development Board, India
- FAO

NEWS FOCUS

China signs Food Safety Agreement with Japan

According to reports in the Japanese Industrial and Economic News, China and Japan are close to signing an agreement on food safety. The report states the purpose of the agreement is to reassure Japanese consumers about safety of food imported from China following the "Poisonous Dumplings Incident" in 2008. Under the agreement, Japanese representatives can enter Chinese food factories to check on the quality of food products, including food additives, food packaging and containers.

In addition, the agreement states that both the countries shall notify each other, when problems occur with food and, when necessary, provide the other country with information such as original place of manufacture and manufacturer, and distributor of the products. Besides, a regular ministerial meeting will be held by the two countries every year to make detailed food safety plans and to explore ways of solving food safety problems.

Source: www.ChinaCSR.com, February 1, 2010

Global cotton prices may rise on low supply

According to the International Cotton Advisory Committee (ICAC), global cotton prices are likely to rise by 9% to 67 cents per pound in the 2009-10 season due to shrinking global stocks and increasing consumption.

Increase in global cotton rates will add to the woes of the domestic garment industry, reeling under falling demand from importers and high domestic cotton prices. According to the Confederation of Indian Textile Industry (CITI), at present, domestic cotton costs are higher than the global market. *Shankar* cotton is the highest priced variety at Rs 27,000 per candy against Rs 21,500 per candy (356 kg) in October. Any further increase in global cotton rates will result in significant increase in domestic cotton rates, which have already risen by 20 per cent in the last quarter.

Source: International Cotton Advisory Committee (ICAC)

World coffee output may fall in 2009-10 coffee year

According to the International Coffee Organisation (ICO), global coffee output may decrease by 3.6% to 74.13 lakh tonnes (LT) in the 2009-10 crop-year due to fall in production in Brazil and Africa. It further added that adverse climatic conditions and disease infestation in few growing regions may also affect crop quality. World coffee supply could be tight in 2010 since opening stocks are at low levels. However, the crop would be sufficient to offset supply problems.

According to ICO, production in Brazil, the world's biggest coffee exporter, is reported to have fallen by more than 14% to 23.68 LT from 27.59 LT in coffee year 2008-09. Fall in coffee output is also envisaged in a number of other countries of Africa (Cote d'Ivoire, Uganda and Tanzania), Asia (Papua New Guinea and Vietnam), Mexico and Central America (El Salvador) and South America (Ecuador and Peru). Production of coffee in Africa is estimated to decline by 3.19% to 8.86 LT in the crop year 2009-10 from 9.15 LT in the crop year of 2008-09. In Vietnam, the world's third largest coffee exporter, output is expected to decrease marginally by 2.70% to 10.80 LT from 11.10 LT, in 2008-09 crop-year. In Colombia, crop size in the first three months of the 2009-10 crop-year (October-September) is reported to be below the level of 2008-09. However, production in Indonesia and India are expected to be higher in the 2009-10 crop-year. In Indonesia, the world's fourth-largest coffee exporter, output is pegged at 6.9 LT for 2009-10 seasons against 5.61 LT last year. India's output is estimated to be 2.89 LT against 2.62 LT in the review period.

Coffee crop year varies in different countries. Brazil is through with harvesting in March, while the other major producers like Vietnam, Indonesia and India will complete the harvesting in October, this year.

Source: ICO

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