

Israel Building on Success in Indian Rural Sector

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Author's Index

Indian Legal Framework for Foreign Trade And Investment



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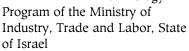
India-Israel: Ready for Cooperation in Water Technologies



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Incandescent Growth of Indian Financial Sector

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India's Human Resource Brand in The Age of Global Recruiting

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Cross Border Business Negotiations

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Development and Cross
Cultural Negotiations. He has
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promotion in the private sector
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CONTENTS

Ambassador's Message	8
Challenges of Collaborative Business Innovation	10
India-Israel Trade: Ready for the Big Leap	14
India and Israel – Unbeatable Duo in Synergies & Complementarities	18
Opportunities Knock: The Case for Hi-Tech Cooperation between India and Israel	20
Secret Engine Behind Israel's Innovation	24
Nano Science and Technology: Glimpses of Activities and Opportunities in India	26
India: Rising Star in BioPharma World	32
Strengthening Ties in Semiconductor Industry	36
Unlimited Opportunities for Israeli companies in the Indian Healthcare Sector	40
Opportunities Galore in Indian Infrastructure	44
Renewable Energy: India-Scripting Success of Israeli Companies in India	48
Israel Building on Success in Indian Rural Sector	50
Developing Synergies in Agri-Business	56
India-Israel: Ready for Cooperation in Water Technologies	61
Indian Retail Unlocks Potential for Israeli Companies	. 63
Incandescent Growth of Indian Financial Sector	66
Indian Legal Framework for Foreign Trade and Investment	70
India's Human Resource Brand in the Age of Global Recruiting	72
Cross Border Business Negotiations	74
Business Article: The Worldwide Leader in Software DRM, USB-Based Authentication, and Secure Web Gateways	77
Business Article: The Specialty Foundry, Brings Business and Technical Advantages to Chip Companies In India	80

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Ambassador's Message



H.E. Mr. Arun K. Singh Ambassador of India to Israel

am happy to present this publication on "India-Israel: Potential Ahead".

Two years ago we had brought out a publication on "India-Israel in Focus" which featured success stories in India-Israel cooperation, possibly also as example and encouragement for others. The publication had covered such experiences in information technology, agriculture, banking, telecommunication etc.

2007-08 marks the 15th anniversary of the establishment of diplomatic relations between India and Israel. Over the years, trade and economic relations have come a long way. Annual bilateral trade which stood at US \$200 million in 1992, reached over US \$3 billion at the end of 2007. Israeli companies have invested in all major growth centres in India including IT, telecommunications, biotechnology, pharmaceuticals, medical equipment manufacturing, agriculture, jewellery and now in real estate and infrastructure. Indian companies have started investing in Israel with major investments spanning pharmaceuticals, irrigation equipment, tyre manufacturing and IT/software. The State Bank of India, the largest Indian bank, started its operations in Israel in March, 2007. The India-Israel Industrial R&D Fund, set up by the two Governments in 2005, is now in the 5th round of call for proposals, after successful funding of projects identified in the earlier rounds.

It is in this framework, that we have brought out the current publication, focusing on the potential in some of the high growth areas that include biotechnology, agriculture and food processing, health care, high-tech, innovation, industrial R&D, semi-conductors, energy, banking, infrastructure, retailing, human resources etc.

We trust that the information provided in the publication would encourage further interest in cooperation between companies and business organizations of the two countries.



Israel Building on Success in Indian Rural Sector

Israel joins hands with India to expedite the development of its largest and most viable sector, rural sector. Dr. Martin Sherman outlines some important initiatives in this regard.



Farmers at work in a Paddy Field

¶ince independence, India has always been focusing on the development of its rural population. For India, agriculture represents much more than a mere slice of economic pie - it is the very lifeblood of the country, the source of livelihood for its 70 percent of the population, the base upon which the entire edifice of the nation rises.

India's Minister of Finance, P. Chidambaram in his February 28, 2007, budget speech made a point, "I shall now take up our main challenge: agriculture. I may recall the words of Jawaharlal Nehru, who said "Everything else can wait, but not agriculture." In YaleGlobal On-line on April 20, 2007, Indian Mira Kamdar said,"The Indian government cannot afford to ... let rural India languish. The best strategy it can embrace is one where farmers' needs dictate innovative solutions from the bottom up and

where social entrepreneurship can flourish along with an increasingly empowered and prosperous rural population".

These excerpts reflect the rationale behind an ambitious initiative currently being formulated at the Samuel Neaman Institute (SNI) at Haifa's Technion, which could open up an enormous range of diverse opportunities for Israeli business in India.

Challenges of Indian rural sector

India's agricultural sector has been underperforming for several years - especially in relation to the other booming sectors in the burgeoning economy. The

International Herald Tribune (IHT) has refered it as the bane of the Indian economy. As the IHT article, in February, 2007 puts, 115 million farming families, dispersed among more than 600,000 villages, whom growth has left behind. They are unable to increase their yields at the pace at which urban consumption is growing, causing prices to rise. The farm sector, which employs two-thirds of the country but accounts for just one-fifth of the economy, has grown at slightly more than 2 percent a year for the past several years. That is a far cry from the 9.2 percent growth projected for the broader economy in the fiscal year ending March 31.

Efforts to enhance socio-economic realities of Indian rural sector cannot be limited to merely improving yields and upgrading cultivation techniques



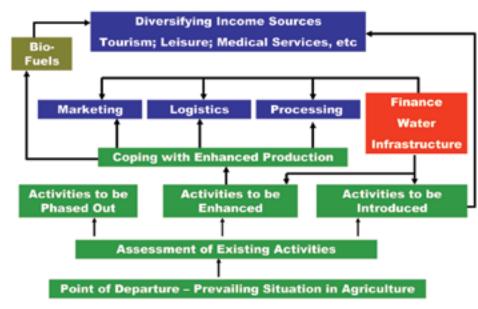
There are several reasons for this predicament, both social and structural. One of the major problems is the small size of Indian farms, with almost 70 per cent of farmers having holdings of less than two hectares (twenty dunams) and some as small as half an acre (two dunams). Moreover, the situation is further exacerbated by the fact that over the time, even these inadequately sized units become smaller and smaller- and therefore less and less competitive – because of continual sub-division due to inheritances. Indeed, a 2003 report by the Earth Policy Institute pointed out that in India: As land holdings are divided for inheritance with each succeeding generation, the 48 million farms that averaged 2.7 hectares each in 1960 were split into 105 million farms half that size in 1990... The average Indian family...will be hard pressed to pass on viable parcels of land to future generations.

This is a situation that generates serious economic problems, which permeate throughout the entire economic and social fabric of the nation. The YaleGlobal On-Line source notes, while farmers struggle, agricultural production cannot meet demand. Rising food prices are fueling inflation, causing real suffering among the 850 million Indians who live on small income.

On the one hand, these are circumstances that clearly represent a looming socio-economic crisis but on the other hand, they equally clearly represent an economic opportunity of enormous dimensions for the corporate world. It is toward the latter that the SNI initiative addresses itself.

Opportunities for Israeli companies

To facilitate the orderly transformation of Indian agriculture to



To facilitate the development of rural sector, it is essential to devise ways to increase income of the small farmer, and provide him alternative and/or additional rural-based sources of living

modern and competitively viable configurations, it is essential to devise ways to increase the income of the small farmer in India, and provide him alternative and/or additional rural-based sources of livelihood. The inevitable quest to identify and implement such means of transformation will open up vast areas for Indo-Israeli collaboration. Israeli agricultural expertise and know-how are among the most advanced in the world. Accordingly, the contribution Israel can make toward advancing Indian agriculture - both by enhancing existing activities and by introducing new ones - is considerable.

Indeed, it may not be an exaggeration to assert that the development of India's rural sector could be one of the most momentous undertakings of this century, if addressed with a judicious mix of resolve and intelligence, of political will and intellectual force. This

meteoric growth will also bring unprecedented commercial and economic spin-offs for those involved with it.

Need for molistic approach

Agriculture is the point-ofdeparture for any initiative aimed at the enhancement of the socioeconomic realities in rural sector. Efforts cannot be limited to merely improving yields and upgrading techniques of cultivation. If the benefits of more efficient and productive agriculture are to translate into sustainable enhancement of the lives of the rural population, an integrative systemic approach is essential. This will entail developing the means for marketing the increased agricultural output, the logistics systems to transport it from the farmer's field to the consumer's kitchen, via appropriate storage, refrigeration and packaging facilities. It will also require development of various processing

RURAL INDIA



industries to make produce more durable and the means of consuming it more diverse.

It is important to note here that the Indian retail sector is undergoing a rapid revolution with international supermarket chains establishing themselves throughout the country. This too will have far reaching impact, not only on patterns of consumerism, but on Indian agriculture as well, creating serious challenges for existing structures, and opening up opportunities to apply more advanced techniques to address the increasing demands of quality control - such as computerized systems of the kind developed and operated in Israel.

In addition, despite criticism that retailing of food is reducing the availability, and increasing the cost of food, the bio-fuel industry - including the cultivation of crops for raw material as well as establishment of fuel production plants - is likely to become a growing part of India's rural sector in the coming decades. For example, in some areas of India, ethanol production is being proposed to facilitate transfer from rice cultivation to maize in order to prevent depletion of ground water and reduce energy consumption required for irrigation.

All of this will put increasing demands on the rural infrastructure systems - such as roads, rail and communication systems which will have to be upgraded to adequately accommodate the changing needs of the rural sector. Another area of crucial importance, and one in which Israeli companies could make considerable contribution, is that of water management - again across a wide range of activities, from irrigation to conveyance and conservation, to sewage recycling and the exploitation of marginal waters.



SNI has successful collaboration with India in the field of IT, Hi-Tech, Science and Technology, and now in rural development

Development of Non-Farm income sources

However, rural development cannot hinge on the enhancement of agriculture and its derivative activities. In fact, as levels of agricultural productivity rise, so the levels of agricultural employment fall - creating potential for social unrest and increase in the urban migration into India's already overcrowded cities. As a report for the Asian Development Bank points out: "... employment opportunities in rural India need to be increased....Rural employment in India has been synonymous with the employment in agriculture sector; however, with the demographic pressure on land and limited opportunity of expanding cultivated area, the role of non-farm sector is becoming important."

Here again Israel's inputs could be invaluable. Israel has experience in weathering severe crises in the agricultural sector and its experience in generating additional non-farm sources of income for the rural population - such as rural tourism, outdoor recreational activities, cottage industries and so on, could be of particular practical worth in this regard.

Unconventional aspects of the rural development

Another sphere which dovetails with the desire to upgrade the quality of rural life and provide non-farm sources of employment, is the establishment/expansion of rural clinics. Development in this area not only provide valuable services to rural communities, but also offer employment (initially for less skilled positions in maintenance and clerical positions) and training (for skilled and professional positions) for the local residents. This opportunity also opens up opportunities for Israeli firms to equip and supply such clinics. A recent article in the Indian Journal of Medical Ethics entitled "Governance in Healthcare" by Bashir Mamdani, focused on the administrative

RURAL INDIA

challenges facing health care in rural India. This revealed how opportunities for Israeli firms may arise in unexpected avenues. Among other things, the article suggests enhanced monitoring equipment in clinics could dramatically improve the poor work attendance medical staff, just like in the case of school teachers.

Other innumerable opportunities, not directly associated with rural development, were highlighted in an article, "Smart Money for India's Rural Poor", in Fortune Magazine. In the article, the renowned economist Lord Meghnad Desai suggests that the Indian government should adopt the use of biometric "smart cards" to transfer government payments to the half a billion rural poor rather than by the current post office system. Both ICICI Bank and Citibank are exploring this possibility, which in principle has been endorsed by Finance Minister P. Chidambaram. This illustrates how advances in seemingly unrelated fields can be integrated into the development scheme for India's rural sector.

The SNI initiative

The recognition of the huge potential for Israeli companies in India's rural sector prompted SNI to embark on this initiative, in which the overall aim is to promote awareness of this potential and accelerate its realization. Head of the SNI, Prof. Nadav Liron put the rationale of the "enlightened self-interest" that lies behind the initiative in the words that say, "The aim is to help India to help Israel."

Located on the campus of Haifa's Technion, Israel leading technological institute, SNI has easy access to a wide range of relevant competencies - from agricultural engineering to medical science; from biotechnology and food engineering to hydrological

research and water management. SNI also has developed a successful ongoing cooperative relationship with India in the field of IT and Hi-Tech, interfacing with the Department of Science and Technology (DST) and the Technology Information, Forecasting and Assessment Council (TIFAC).

It therefore seems only logical that SNI expand its "Indian Initiative" to this additional sphere which is of crucial importance to India.

In Israel the relevant organs of the Ministry of Foreign Affairs and Ministry of Agriculture- the Center for International Cooperation (MASHAV), The Center for International Agricultural Development Cooperation (CINADCO) - have conveyed their support for the project.

- approach. Special emphasis will be placed on the mutual benefits, derived from Indo-Israeli collaboration. SNI will initially focus on the States of Punjab and Haryana, to devise a model that could be subsequently expanded to other regions of the country.
- 2. A "bottom-up" problem-solving effort designed, in collaboration with its Indian counterparts, to identify issues of particular urgency in specific areas, and to explore ways to apply Israeli expertise and experience in effecting solutions.
- 3. The identification of Israeli corporations with the relevant know-how and competencies to meet Indian needs and to offer "best practices" proposals based on proven Israeli expertise and its adaptation



A doctor at a clinic in Patna, Bihar State, India talking to patients in remote villages, March 2007

Application of SNI initiative

In principle, SNI initiative is being conducted on three different planes:

1. The formulation of a comprehensive policy document, in cooperation and consultation with its Indian counterparts, that would comprise a strategic blueprint for the development of the Indian rural sector, along the lines of integrated, holistic

to prevailing conditions in

In this way SNI serves as a catalyst for Israeli business enterprises to benefit from the enormous potential, offered by India's rural sector across a wide range of diverse activities – from research and consultancy via cultivation and water management to commerce, manufacturing, and finance.