

Board's Report

To the Members,

The Directors present their report on the financial performance, business and operations of the Company for the year ended 31st March, 2013.

1. Financial Highlights

₹ in Million (except EPS)

Particulars	2012-13	2011-12
Domestic Sales	27,571	30,374
Export Sales & Services	6,490	6,725
Other Operating Income	1,048	712
Sales and Operating Income	35,109	37,811
Operating Profit	6,104	7,968
Interest and Finance Charges	4,422	4,235
Depreciation and Amortisation	1,195	1,007
Profit before taxation and exceptional items	487	2,726
Provision for Tax		
Deferred Tax (Asset)/(Liability)	100	485
Current Tax Provision	86	(443)
Profit for the year before Prior Period Expenses	301	2,684
Prior Period Items-Income/(Expenses)	-	1
Profit for the year	301	2,683
Profit b/f from the previous year	8,341	6,629
Balance available for Appropriation	8,642	9,312
Out of which the Directors have appropriated as under;		
Proposed Dividend	227	405
Dividend Distribution Tax	39	66
Transfer to General Reserve	30	500
Balance carried forward	8,346	8,341
Earnings per Share (₹)		
Basic	0.70	6.62
Diluted	0.70	6.62

2. Operations - Standalone

The net sales and operating income degrew by a little over 8%. The domestic revenues at ₹27,562 million were hit harder due to business model change, especially in MIS/SIS revenues were down 27% YoY, while smaller businesses like Tissue Culture and Green Energy reported 54.4%, 31.2% growth in domestic business. Export of Piping grew by 39%. The operating profit fell by over 23% while interest and finance charges went up by 10% YoY. After the tax adjustments, the profit after tax is at ₹ 301 million a fall of 89% YoY.

3. Dividend

Sr. No.	Particulars of Dividend	Amount (₹)
1	25% (₹ 0.50 per Share) on 435,619,978 Ordinary Equity Shares of ₹ 2 each	217,809,989
2	25% (₹ 0.50 per Share) on 19,294,304 DVR Equity Shares of ₹ 2 each	9,647,152
Total		227,457,141
3	Dividend Distribution Tax @ 16.995%	38,656,341
Total		266,113,482

Despite flat performance of the company during the year, the Directors propose to the Shareholders a Dividend of ₹ 0.50 each on Ordinary & DVR Equity Shares involving an outlay of ₹ 227.46 million to all eligible shareholders and ₹ 38.66 million as Dividend Distribution Tax for the year ended 31st March 2013.

4. Long Term Fund Raising

The following table gives details of major overseas long term funds raised during the FY 2013;

Nature of funds	From	Amount	Remarks
(I) FY 2013			
(a) Equity shares at premium	Mount Kellett & IFC-Washington	₹ 3978.71 Mn	49.73 Mn shares
(b) Foreign currency convertible bonds [FCCB]	IFC-Washington	\$40 Mn	Conversion at a price of ₹115 per equity share
(c) External commercial borrowings [ECB]	IFC-Washington Rabo International	\$75 Mn	LIBOR 6 M linked 6 to 10 years maturity
(d) Equity warrants	Promoters group	₹161.81 Mn	25% security deposit as per SEBI ICDR 2009
(II) FY 2014			
(a) FCCB	FMO Proparco	\$10 Mn	Conversion at a price of ₹115 per equity share
(b) ECB	DEG Proparco FMO	\$65 Mn	To replace \$51 Mn raised in (1) (c) above and balance \$14 Mn fresh funds all with 8 to 10 years maturity

5. Capacity Expansion and Capital Expenditure

The Company has continued its already decided growth/ maintenance capex and the following table gives the capex incurred for capacity expansion implemented during the year and the resultant capacity addition in FY 2013:

Sr. No.	Segment name	Unit	Addition in Capacity for FY 2013	Capex FY 2013 (₹ in Million)
1	MIS/SIS	Tons	3,900	916
2	Piping Systems	Tons	3,720	219
3	Dehydrated Vegetable	Tons	0	24
4	Fruit Puree etc	Tons	0	99
5	Tissue Culture	Nos	20	199
6	Green Energy			
	[a] Power	MW	5	186
	[b] Water Heater	Mn Ltrs	1	-
7	[a] Solar Power Project	-	-	219
	[b] Admn & Corporate	-	-	269
Total				2,135

6. List of Awards / Recognition - Financial Year 2012-13

A) Jain Irrigation Systems Limited

Award/Recognition name	Instituted by	Given for
The Good Company Award	Forbes India	For impacting the lives of over three million farmers by helping them shift to more scientific and sustainable agriculture.
Kashalkar Memorial Award	All India Food Processors' Association	Outstanding contribution to the development of Food Processing Industries in the Country (for the year 2011).
Aqua Excellence Award	Aqua Foundation, New Delhi	Outstanding contribution towards cause of water private sector.
Award of Excellence	Israel-Asia Chamber of Commerce and Industry, Israel	For Leadership, Innovation and continuous Involvement and Investment in the Agriculture Technology & Irrigation Sector in Israel and in India and contribution to Israel-Asia Co-operation.
Star Performer	EEPC India (Formerly Engineering Export Promotion Council)	Large Enterprise Agricultural or Forestry Machinery and Parts.
APEDA Export Award	Ministry of Commerce and Industry, Government of India	Outstanding export performance and contribution in the processed fruits and vegetable sector.
Indian Exporter's Excellence Award -2012	Dun & Bradstreet and Export Credit Guarantee Corporation of India Limited.	Winner position in the Food and Agro products sector under the large exporter's category.
Felicitation	GAIL (India) Ltd.	Ranked 3 rd in Top 10 Customers in quantity lifting of Polyethylene grade during year 2010-11.

B) Padmashri Bhavarlal H. Jain – Chairman

Award/Recognition name	Instituted by	Given for
Qimpro Platinum Standard 2012	Qimpro Foundation, Mumbai	National Statesman for excellence in quality.
Heroes of Philanthropy	Forbes Asia	One of the 48 Heroes of Philanthropy in the Asia-Pacific Region (Published by Forbes Asia, July 2012) For people who are giving their own money, not their company's (unless they own most of the company) & Bhavarlal Jain opened GRF cost \$6 million shared with Company).
ISAE Gold Medal (Lifetime Achievement Award)	Indian Society of Agricultural Engineers	Outstanding contribution in Agricultural Engineering Industry.
Jivan Gourav Puraskar	Daryasagar Samajik Sanstha	Social work.

7. Other major developments during FY 2013

During the year under review the NBFC arm of the group namely Sustainable Agro Commercial Finance Limited (SAFL) has started its operations. SAFL company has raised ₹ 60 crores equity and is expecting soon contribution from International Finance Corporation (IFC), Washington, an arm of World Bank (WB) who intends to hold 10% Equity stake for ₹ 69 million in the NBFC.

SAFL has started operations in Maharashtra at about 22 branches since beginning of 2013 and has divided the state in 4 zones Jalgaon, Pune, Aurangabad and Amravati with a staff of approx 105 so far. It will finance for micro irrigation and other products for a tenure up to 3 years. Till date it has sanctioned loans worth ₹ 365 million and disbursed ₹ 275 million to approx 3,250 farmers.

8. Other major developments post March 2013

The Company is in process of seeking shareholder approval for divesting/ disposing its Wind Power undertaking through the Postal Ballot route and shall result in repayment of little more than \$ 10 million Foreign Currency loans raised for the project in 2009.

9. Directors retiring and their background

Shri R Swaminathan and Smt. Radhika Pereira are retiring by rotation and being eligible offer themselves for re-appointment at the ensuing AGM.

Shri R Swaminathan is B Tech (Chemical). He has been associated with the Company almost since inception. He was appointed as Whole Time Director of the Company on 9th May 1996 for 5 years, The appointment was renewed on 9th May 2001 for 5 years. However, he resigned as Whole Time Director - Technical on 20th August 2002. He had been appointed CTO of the Company w.e.f. 20th August 2002. The Board had reappointed Mr. R. Swaminathan as Whole Time Director designated as Director - Technical for a period of two years effective from 1st October 2008, re-appointed as Director - Technical for a period of two years effective from 1st October 2010 to 30th September, 2012 and further reappointed as Director - Technical for a period of 3 years effective from 1st October 2012 to 30th September 2015.

He looks after the technical areas of PVC Pipes, Plastic Sheets and related business areas. He has worked in almost all the operational areas and is involved with development of new applications & products and adaptation of drip technology for Indian conditions.

Smt. Radhika Pereira is a graduate of Mumbai University in science and law and holds an LLM from Cambridge (England) and Harvard (USA). She has been associated with the Company since 29 Dec 2005. She is a Managing Partner of Dudhat, Periera and Associates, Advocates, Mumbai. Over the years she

has worked with Mulla & Mulla, Cragie, Blunt & Caroe, Advocates and Solicitors, Mumbai, Arthur Anderson & Co, Mumbai, and as a Partner in Udhwadia & Udeshi, Advocates, Mumbai.

10. The operations of subsidiaries

The Mauritius based direct subsidiary of the Company has a revenue of \$ 478,393 and made a net loss of \$ 738,239. Summarised Balance Sheet and the Income statement of the said subsidiary is available elsewhere in the Annual Report. The subsidiary has redeemed Preference Shares of holding Company amounting to \$ 6,825,000 during the year under review. The Netherlands based direct subsidiary of the Company has earned an income of \$1,204,081 and made a net loss of \$107,574. Summarised Balance Sheet and the Income statement of the subsidiary is available elsewhere in the Annual Report. The resources of this subsidiary has been further strengthened by infusion of \$ 56,290,000 as Equity Share premium.

Other Subsidiaries

Information on operations of other subsidiaries, including new acquisitions has been covered in management discussion and analysis in this annual report.

11. Employee Stock Option Plan (ESOP)

The implementation of Employees Stock Options and Shares Plan, 2005 (ESOP-2005) has continued during the year under review. Till date four lots are issued to eligible employees including whole time directors, and key management personnel. No employee has been issued options entitling such person to subscribe to more than 1% of Ordinary Equity Share capital of the Company.

Details and disclosures in compliance with the Clause 12 of the SEBI (Employee Stock Option Scheme and Employee Stock Purchase Scheme) Guidelines, 1999 are set out in the table below:

Sr. No.	Particulars	Lot No. 1	Lot No.2	Lot No.3	Lot No.4
A]	Options Granted (on sub divided Ordinary Equity Shares)	25,00,000	25,00,000	25,00,000	25,00,000
B]	Date of Grant	27-Jan-07	04-Jun-07	14-Feb-08	27-Jun-08
C]	Pricing Formula	25% discount on market price on the date preceding the date of grant	10% discount on market price on the date preceding the date of grant	10% discount on Market price on the date preceding the date of grant	10% discount on market price on the date preceding the date of grant
D]	Options vested (on sub divided Ordinary Equity Shares)	25,00,000	25,00,000	25,00,000	25,00,000
E]	Options exercised (on sub divided Ordinary Equity Shares)	23,58,050	22,24,625	24,71,250	Nil
F]	The total number of shares arising as a result of exercise of option (on sub divided shares)	23,58,050	22,24,625	24,71,250	Nil
G]	Options lapsed (on sub divided shares)	Nil	Nil	Nil	Nil
H]	Variations in terms of options	None	None	None	None
I]	Money realised by exercise of options (₹ in Million)	145.14	183.96	280.73	Nil
J]	Total Number of options in force (on sub divided Ordinary Equity Shares)	1,41,950	2,75,375	28,750	25,00,000
K]	Employee-wise details of options granted to:				
	i) Senior managerial personnel	3,77,500	2,03,750	4,56,250	4,56,250
	ii) Any other employee who receives a grant in anyone year of option amounting to 5% or more of option granted during that year	-	-	-	-
	iii) Identified employees who were granted option, during any year, equal to or exceeding 1% of the issued capital (excluding outstanding warrants and conversions) of the Company at the time of grant	-	-	-	-
L]	Diluted Earnings Per Share (EPS) pursuant to issue of shares on exercise of option calculated in accordance with Accounting Standard (AS) 20 'Earnings per Share'	NA	NA	NA	NA
M]	*Where the Company has calculated the employee Compensation cost using the intrinsic value of the stock options, the difference between the employee compensation cost so computed and the employee compensation cost that shall have been recognized if it had used the fair value of the options, shall be disclosed. The impact of this difference on profits and on EPS of the Company shall also be disclosed (in lacs)	NA	NA	NA	NA
N]	Weighted average exercise price and weighted average fair values of options shall be disclosed separately for options whose exercise price either equals or exceeds or is less than the market price of the stock on the grant date.				
	(a) weighted average exercise price (₹)	61.552	82.692	113.60	85.80
	(b) weighted average fair value (₹)	35.022	34.954	55.40	42.22
O]	A description of the method and significant assumptions used during the year to estimate the fair values Black Scholes Method Black Scholes Method of options, including the following weighted average information:				
	(1) risk-free interest rate	7.50%	8%	9%	9%
	(2) expected life, (in years, average)	4	4.5	5	5
	(3) expected volatility, (in months)	6	6	6	6
	(4) expected dividends, and	50% in 2012		25% in 2013	
	(5) the price of the underlying share in market at the time of option grant. ₹ per share (on non sub divided Ordinary Equity Shares)	410.35	459.40	630.15	476.20

The Shareholders and the Board of Directors have approved a new ESOP-2011 with 53,56,000 options through an Employee Trust. The Trustee is independent professional and shall administer the Scheme under the guidance of Compensation Committee.

12. Director's Responsibility Statement

In accordance with the provisions of Section 217(2AA) of the Companies Act, 1956, your Directors state that:

- In the preparation of the annual accounts, the applicable Accounting Standards have been followed except, to the extent indicated in notes;
- The accounting policies are selected and applied consistently and are reasonable; prudent judgments and estimates were made so as to give a true and fair view of the state of affairs of the Company as at 31st March, 2013, and, of the profit of the Company for the year ended 31st March, 2013;
- Proper and sufficient care has been taken for the maintenance of adequate accounting records in accordance with the provisions of Companies Act, 1956, for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- The Directors have prepared the annual accounts for the FY ending 31st March, 2013 on a 'going concern basis'.

13. Material Developments in Human Resource

"TRUST" plays a significant role while working at Jain Irrigation. The Company has an open

door and pro-active policy and any associate desirous of addressing his grievance is entertained and is free to approach even the Chairman. This openness helps create an atmosphere of extended family. Resultantly, the operations of all the manufacturing facilities of Jain Irrigation enjoy whole hearted co-operation and the spirit of being "One".

Associate Engagement

Apart from the overall development of associates, the Company is adopting various HR initiatives for bringing in the feel of "Organization as a large family" amongst not only the associates but also the families of the associates in a systematic manner. Pilgrim tours were undertaken for the associate parents and grandparents and also for the associates who are above age of 45 years. Total 6 pilgrim tours of 9 days each involved 261 parents & grandparents of 101 associates. People in general find it awkward to discuss about the issue of infertility and it leads them to not taking proper guidance / treatment for the same.

The location and program wise training details are as under;

Associates Training 2012-13

Sr. No.	Location	In House Faculty			External Programs			Total Man Hours
		No. of Programs	No. of Associates	Duration (Hours)	No. of Programs	No. of Associates	Duration (Hours)	
1	Agri Park	38	362	1,049	8	18	301	1,350
2	Plastic Park	614	8,526	28,341	25	43	616	28,957
3	Food /Energy Park	236	5,161	10,787	23	79	1,568	12,355
4	Orientation	13	416	22,864	-	-	-	22,864
5	Overseas Training	-	-	-	1	17	1,768	1,768
Total		901	14,465	63,041	57	157	4,253	67,294

Agricultural Engineers' Training 2012-13

Sr. No.	Location	In House Faculty			External Programs			Total Man Hours
		No. of Programs	No. of Associates	Duration (Hours)	No. of Programs	No. of Associates	Duration (Hours)	
1	Engineer Training	12	233	48,464	12	271	56,368	1,04,832
2	Engineer Field Training (3 months)	-	-	-	-	109	42,224	42,224
Total		12	233	48,464	12	380	98,592	1,47,056

Associates having infertility issues were identified and counseling and proper medical treatment, all expenses paid, was initiated for them. 8 families are enjoying the success and 40 cases are undergoing treatment. Under 'Vidyarthi Utkarsh Abhiyan' for children of associates, the third batch of children of associates between standard 7th and 10th is taking free coaching and 156 students have benefited from the same. Apart from the academics, 10 days residential "Personality Development Camp" was organized at Anubhuti School for 109 children of our associates. To ensure that the deserving children of associates do not get deprived of education due to monetary limitations of their parents, this year also Company continued to provide educational scholarship on need and merit basis. 391 children are awarded scholarship amounting ₹ 63.36 lacs. Special emphasis was given for the education of the girl child and children of the associates in low income group. To make a family proud of the role what their family member is undertaking in the organization, a visit of family members of associates is conducted to all company locations at Jalgaon for giving them information about the importance of job of their family member is undertaking and the unique work culture of the organization. Total 116 visits of 886 associates covered 4,580 family members.

Social Involvement

Blood is very much important to save the life of someone. Once again on demand of the blood banks, a Blood Donation Camp was organized wherein highest figure of 824 units of blood was achieved by associates in the Company.

Training

The Company is helping to meet the academic requirements of students opting for "Agricultural Engineering" by providing them 16 week training which is mandatory by Universities. The students were given one month class room training and three months field training in which students were exposed to the Survey, Design, Installation, Maintenance of Micro Irrigation Systems and Field Operations. This training gave the real experience to the students and those proved themselves, were absorbed by the company.

The training and development activities for all our associates continued within all our locations.

Recruitment and Manpower Strength

The recruitment drive continued throughout the year in search of right people for right places, which also included the Campus Selection for Engineering Graduates and Post Graduates from Agriculture field all over the country. The recruitment was done on the basis of demonstrated and potential ability, compatibility with the organizational culture, merit, openness and fitness with son of the soil empathy. The permanent employee strength of the Company reached 7,903 on 31st March, 2013, after gross addition of 1,082 during FY 2013.

14. Corporate Social Responsibility & Sustainability Report

a. Corporate Social Responsibility

'Jains' have always believed in doing business with a social conscience. Ever since 1963, we have considered Education, Health, Culture and Environment as the four pillars of society. Their charitable work was institutionalised in 1982 through the Public Charitable Trust named 'Jain Charities'. The Foundation has its roots in rural India. Founders are natives of villages and, therefore, believe in paying special attention to this neglected class of society. The Charity Profile is, however, not restricting the activities only for rural upliftment. The principal goals of the Trust are : Advancement of education, provision of medical relief, furthering of rural development & environment, undertaking R&D, promoting sports, games & physical fitness exercises and initiating and supporting all round development of education & projects for the welfare of the society in general.

GRF Activities: As a part of rural development theme the Company has promoted and supported Gandhi Research Foundation (GRF) a Section 25 Company. Following paras give a brief on its activities during the year.

GRF has been organizing 'Gandhi Vichar Sanskar Pariksha' to inculcate Gandhian values in the minds of young generation for quite some years. GRF believes that values inculcated in the early days of a child remain for the rest of his life! This year 100,953 students participated in this examination throughout Maharashtra. First three meritorious students from each district have been given special awards and schools that had sent more than 100 children were given special trophies.

Keeping Gandhian values in mind GRF, JISL and Arizona State University organized a workshop – EmPeace Labs 2012 - at Gandhi Teerth (Parishram) 20-26 October, 2012 covering sustainable agribusiness, leadership and community development, peace and violence prevention as main trances further subdivided into several topics. Justice CS Dharmadhikari, Ms. Neelima Mishra, Dr. YP Anand, Shri Satyanarayana Sahu, Dr. Rajendra Khimani, Prof. Sudarshan Iyyangar, Prof. M.P.Mathai along with dignitaries from ASU served as resource persons. Participants from 19 countries participated in this workshop, the largest contingent being from African countries.

Dr. Rajendra Pachauri has been invited to participate in a National Workshop on Permanent Development on 2nd January 2013 at Gandhi Teerth auditorium. Several dignitaries' from the city and educational Institutions in addition to associates of JISL and GRF participated.

GRF has also organized a 'Krishi Vikas Prabodhan Yatra' from 30th January 2013 to 12th February 2013 in Khandesh rural villages to educate the villagers on the values of Gandhiji. This Yatra included Tarsod, Bamgod, Vaghoda, Khirdi, Udli, Mihon-Chinchol, Changdev, Hingane, Salsingee, Shindi, Kunha-Panache, Garkheda and ended at Neri. A total of 45,000 students and 5,000 farmers were contacted and they were introduced to some of the modern practices in agriculture.

In Wakod village a residential 'Shibir' was organized to inculcate the Gandhian values and Constructive Programmes in the younger minds – 8 to 11 years – from 26th April to 1st May, 2012.

In Kadauli village another 'Bal Vikas Prabodhan Shibir' was organized to share the values of Gandhiji and his Constructive Programmes among young children of 14 to 18 years from 7th to 12th May, 2012.

GRF has organized a 'Bal Vikas Prabodhan Shibir' for the children of 8 to 11 years in Shirsoli village from 15th to 20th May 2012 to familiarise them with the values of life and the ethos of the constructive work of Gandhiji.

To train the villagers for alternate source of income, GRF has started a demonstration plant to extract oil in Jain Valley in March 2013. Villagers are also provided training in Ambar Charkha and Bunai facility at Gandhi Teerth.

GRF has opened 'Khoj Gandhiji Ki' Museum in Gandhi Teerth premises with a view to enlighten visitors with the Gandhian values, his life and works. From 1st April 2012 to 31st March, 2013 34,838 visitors seen the Museum and benefited.

Health & Sports: A well equipped modern Gymnasium has been set up and facilities for lighter exercises have been established for health care. Coaching and courses on health education have been conducted. Competitions in almost all the traditional Indian games have been organized from time to time. These include Khokho, Volley ball, Table Tennis, Badminton, Swimming, Cricket, Trekking, Cycle Race, Skating, Marathon, Carrom, Basketball, Football and others. Training camps are being sponsored for boys and girls under the age of 15. This makes them proficient for participation at District, State & National level tournaments. The Trust also adopts girls & boys and prepares them in such a manner that they can measure upto State & National level sports & games. Sport-lovers, sportsmen and local dignitaries have always taken keen interest in these events and supported them wholeheartedly. The Trust sponsored the state-level cricket match in the 'Ranji Trophy Tournament 2012-13 season' which was played on the spacious lawns of Bhusaval Railway Stadium.

Education: The Trust has set up a primary school at Wakod village. A kindergarten has been commissioned at the R&D Farm, Jalgaon. The students are provided with free uniforms and books. The SNJB Polytechnic College at Chandwad, Dist Nasik, has rendered yeomen service to the region. A Junior Urdu College was established in memory of 'Shaikh Noor Mohd. Chacha' - a person who had been a inspiring support to Company in its formative years. Donations are made for English, Urdu, Marathi school buildings and hostels, Anubhuti 1 and 2. Assistance is given for publications of books & literary seminars. Students and professors aspiring for higher studies and

participation in conferences, at home or abroad, get financial assistance. Scholarships are routinely offered to the deserving students. A Potential Development Academy has been established for encouraging high school students to appear in the state and national level competitive exams. It has achieved outstanding results. Those who top the merit list at the state level are gifted a full set of encyclopedia each.

Medical: The Foundation's medical activities are organized through: Specialty and General Medical Camps. Dispensaries & Hospitals for outdoor patients. Seminars and Discourses with respect to traditional medical disciplines such as Ayurveda & Homeopathy. Various specialists and super-specialists in the field of Cardiology, Orthopedics, Pediatrics, Gynecology, Cancer, ENT and other branches of medicine are invited at the dispensaries and hospitals or at the medical camps organised at various locations from time to time. Minor surgical procedures are also performed at these camps and hospitals. Numerous patients with such ailments are provided financial assistance for treatment at a hospital of their choice and need. A door to door survey of all the families at village Wakod has been completed. This Data Bank will now help the Trust organise required help for the needy patients. They may be brought to hospitals in Jalgaon or sent to Bombay for further medical or surgical treatment, naturopathy center / Anubhuti Clinic.

Social: Every important social event in the city is eligible to receive assistance from the Trust. The donation may be for organising seminars, youth festivals, marriage match associations, vice elimination centre, for offering calipers & tricycles to the handicapped & aid to the blind, for building community halls & Dharmshalas, holding religious discourses & making fund raising effort for the ailing. Voluntary charitable organizations, like the Lions & Rotary Clubs engaged in social work, are also being helped in their endeavour. National/Regional Social impact programmes such as "Rashtra ka Hunkar", "Jago Hindusthani", "Janta Raja", "Sane Guruji Teachings" have all been sponsored. A feature film on "Save Girl Child" Movement & another on "Farmer Suicide" are being screened for public awareness. A unique effort in celebrating birthdays of the younger family members and the death anniversaries of the departed family souls by feeding blind, deaf and dumb and/or street children, beggars is undertaken as always.

Cultural: Art, Music and Literature are important components of culture. Dramas, Orchestra, Folk Dances, Singing & Dancing Competitions, Kavi Sammelans, Humour Melas have been organized from time to time. These finer aspects of life provide an enduring source of relaxation and entertainment. These programmes serve as a medium of education to the young ones. They are a powerful means of building one's personality. They also reflect the way of life of our society. These arts bring out patterns of thoughts, beliefs, customs, traditions, rituals, dresses and languages of India. These are of deep interest to the members of our society and particularly to the visiting foreign dignitaries. Indeed, they get fascinated. They are also seen participating in such events.

Religious and Spiritual: The Trust has been responsible for building or renovating or rejuvenating many Hindu Mandirs, Muslims Dargas, Jain Sthanaks and Dharmshalas. The Foundation has

also organised lectures and discourses by prominent religious leaders and thinkers from time to time. The Foundation welcomes pilgrims proceeding for the visit to Pandharpur as a "Dindi". The Trust is a secular body and is eager to help worthy cause of every religion, whether Hindu, Muslim, Parsi, Jain or Christian. The study of comparative religion is encouraged as a matter of principle. We have conducted courses on Transcendental Meditation of Maharshi Mahesh Yogi, Art of Living of Sri Sri Ravishankar, Brahma Kumaris and of Yog Nidra by Dr. Manohar Harkari for the benefit of senior management executives and prominent citizens of Jalgaon.

City Beautification & Rural Development: The Foundation routinely undertakes beautification projects in and around the city. The traffic islands, fountains, landscaped gardens, sky high towers are the landmarks that have been created/ maintained by the Foundation in Jalgaon city, Kavya Ratnavali Chauk. Development of villages is supported through provision of roads, street lights, gutters, drinking water facility and settlement of interpersonal grievances.

Jain Hi-tech Agri Institute: The Foundation has established a High-Tech Agro Development & Training Centre. The Centre conducts training programmes in the field of agronomy, irrigation and pre & post harvest technologies as well as crop protection. These programmes are for extension workers, farm engineers and agro extension & research, government & semi-government institutions.

The Future: Growth in terms of Profitability and Balance Sheet have never been the only concerns for Company. With the passage of time and material progress, they have continued to expand even their philanthropical horizons. There are no limits to human generosity and human sufferings. We hope to contribute to alleviating distress and pain. The future plans include major financial assistance for setting up a Research institute and Hospital, a Teacher's Training Institute and an Institute for Eye Care and Bahinabai Memorial Trust. Add to it ongoing projects of Gandhi Research Foundation and Rural Development and it can last forever.

B. Sustainability Reporting

Our third attempt of Sustainability Reporting for the year 2013 is in process. This report covers all the operations of Jain Irrigation around the globe. This report covers all the information, process and materiality related to Economic, Environment and Social aspects of the organization in the year 2011-12 and 2012-13. Few of the sustainability aspects carried by Jain Irrigation are highlighted below:

Renewable Energy: Biogas Power Project. Company's waste of mango peels and other fruit/vegetable waste is converted into biogas and used for 1.7MW Biogas project. This is first of its kind Biogas power project in India, due to its design and multi feed system (as recognized by MNRE). This is connected to Grid at 33KV level. This also Project registered for REC and will get registered for CDM very soon. **Solar power project** 8.5 MW solar photo voltaic power project has also been connected to grid at 33KVA level and this will be wheeled and used for captive purpose. This project is registered for REC and CDM both.

Sustainable agriculture: Ultra high density mango plantation with incorporation of JAIN-GAP: along with the partner Coca Cola India started UNNATI in south India with target of 50,000 acres of area. A successful model of contract farming of onion is already successfully running for last 10 years, this year contract farmers supplied 55,000 MT of onion. Tissue culture banana and pomegranate saplings also support the increase in productivity in the farmers field.

Jain Watershed: Rain water harvesting in 500 acre barren land converted into lush green hills, It is training centre for farmers and farm related activities. It is biodiversity park in making, with rich biodiversity.

Carbon credit: Four different kind projects registered with UNFCCC:

1. Banana crop irrigated on Drip in Jalgaon, Dhule, Nandurbar and Nasik District.
2. Fuel switch to biomass in 'Chittoor' mango processing plant in Andhra Pradesh.
3. 13.2 MW wind power project in Theni, Tamil Nadu.
4. 8.5 MW solar photo voltaic power project in Jalgaon, Maharashtra.

Sustainable solutions in water sector: Besides drip irrigation solution provided to the small and marginal farmers. There are other 24X7 water supply schemes implemented in some of the cities of India, with increased efficiency, and also on demand irrigation based on canal command area irrigation scheme implemented with drip irrigation, Solar pumps etc to increase overall benefit to farmers.

15. Environment Health and Safety performance

The following steps have been initiated during the year 2012-13:

- The Company is maintaining Integrated Quality Management System with integration of ISO 14001, OHSAS 18001 & ISO 9001 management and certifications are maintained for its Jalgaon, Hyderabad & Udumalpet Plants. For Alwar and Bhavnagar plants the Integrated Management System certification is planned to be completed by first half of the FY 2013-14.
- Rain water harvesting is done from factory open area as well as from roof top in buildings and same is used for recharging of wells through suitable structures.
- Certification for Energy management System (ISO 50001) and Greenhouse Gas management systems (ISO 14064) is planned to be completed by first half of the FY 2013-14.
- Fire hydrant system at Plastic Park, Jalgaon has been made fully operational covering complete manufacturing facility. First aid hose reels are provided inside the MIS finished goods warehouse and internal fire hydrant system is planned for PE and PVC Pipe buildings. Initial review, designing is done for fire hydrant system at Hyderabad and Udumalpet plants and it is planned to be completed by end of FY 2013-14.
- Substantial reduction in noise levels (90 to 81 dB) in Polytube grinding section is achieved by installation of the grinder underground.

- Smoke detection & alarm system is installed in HR, PRO office and Accounts office building.
- Fully automatic in-built blower slitting machines (close type) are procured and installed on shop floor to reduce the dust in workplace environment.

16. Internal Controls and Management Information Systems

ERP

Post implementation of SAP across India locations, now some more modules are taken up for implementation which would further improve the efficacy and MIS reports from the system.

Internal Controls

SAP implementation allowed a number of strategies to implement internal control in the business application through process mapping, segregation of duties, authorisations. Independent of the SAP functionality and control check, your Company is proactively identifying the areas for further improvement which shall remain an ongoing process.

Future

The Company has plan to integrate its IT infrastructure by rolling out SAP at foreign subsidiaries to further streamline Manufacturing, Supply Chain, local and global reporting, analysis in a common enterprise wide format. It will provide better collaboration with our worldwide units, transparency and efficiency for global operations.

Internal Audit

The company has continued to avail services of Ernst & Young LLP to conduct internal audit in SAP environment and add value by strengthening internal controls and improving efficiency of operations at same time.

17. Fixed Deposits

The Company, during the year under review, has not accepted nor renewed any deposits from public, under the Companies (Acceptance of Deposits) Rules, 1975. The Company had no unclaimed / overdue deposits as on 31st March, 2013.

18. Auditors

The Auditors, M/s. Haribhakti and Co., Chartered Accountants, Mumbai have furnished a Certificate under Section 224(1B) of the Companies Act, 1956 that their proposed re appointment, if made, will be in accordance with the said provision of the Companies Act, 1956. The Audit Committee has recommended that M/s. Haribhakti and Co., a firm of Chartered Accountants, Mumbai be reappointed as Statutory Auditors. The Shareholders may reappoint the Statutory Auditors as per AGM Notice attached separately.

19. Particulars of Employees

As per provisions of Section 217 (2A) of the Companies Act, 1956 only six of the persons in employment of the Company have drawn remuneration in excess of ₹ 500,000/- per month, during the year under review or part thereof as per details in the Annexure to this report.

20. Particulars of Energy Conservation, Technology Absorption, Research and Development, Foreign Exchange Earnings and Outgo.

A) Energy Conservation

Plastic Park

Installation of insulating pads to die heads of higher large diameter HDPE pipe resulted in reduction of loss through surface by 50%. In PVC sheet energy consumption in grinding section reduced by 10% per day due to use of high wear resistant blade material. In PVC sheet 100% reduction in energy consumption during sheet cutting of thickness up to 5 mm by replacing Saw Motor to Knife Blade. Automation in cooling tower operation based on temperature resulted in savings of 20-30%. Rationalizing/replacing old water circulation pumps with high efficiency resulted in reduction in energy consumption to tune of 15%-20%. Retrofitting of old Injection moulding with servo motors resulted in 40% reduction in electricity consumption and increase in production due to lower cycle time. In PVC pipe division automatic vacuum control system was developed for dual vacuum tank to reduce electricity consumption by 50%. Adaption of variable frequency drive on Polo series injection moulding has resulted reduction in energy consumption to tune of 20% per kg. Further use of VFD resulted in 67,000 units. Raw material packing is changed from 25 kg bags to 17 ton bags for LLDPE and HDPE has resulted in reduction of packing material and waste generated from the same. Foggers and green net is provided to chilling plants to avoid the effect of atmospheric temperature on the chilling plant in summer season. This has helped in saving the electrical energy and maintaining required temperature of process water. All bore well pumps are connected to sensor for ON/OFF operation as per tank condition, has helped to save electrical energy and water. Lift is provided for material handling in engineering development department, has helped to reduce manual material handling and stress to associates.

Company has installed 132KVA substation for unperturbed power supply and this has reduced the frequent power failures which were earlier affecting the processing and generating waste for reprocessing. The very basic nature of the Company's production being a continuous process this step taken by Company has allowed the plants to complete eliminate the rejection due to start/stop process on account of power interruptions. The overall process rejection has come down drastically because of this effort.

Food Park

a) Fruit Processing

Replace the rotatory drum (Quantity 8No's) filter with parabolic filter for fruit washer, resulting in net electricity saving, 8 kw/hour, Saving of 10,000 kwh/annum. Modification in sterilizer operation to save steam and electricity. We have modified the sterilization and water production program and installed diversion valve at cooling circuit, thereby saving 306 kg of steam per sterilization cycle and 159 kg of steam per water production cycle. Net saving is 1,27,560 kg/annum.

b) Onion Processing

- Conversion of DHO storage cooling from DX system to VAM based chilled water circulation.
- Online pneumatic transfer of dehydrated onion from dryer outlet to mill for further processing to save manual handling and packing material, storage energy.
- Revamping of mill equipments to minimize product lifting and there by saved energy.
- Reuse of process water with adequate filtration to reduce raw water consumption.
- Conversion of Dehumidifier condenser from air cooling to water cooled, has resulted into uniform cooling also reduction in compressor pressure. Total Investment INR 7 lakh. Total amount saved/year INR 14 lakh.
- Replacement of HPMV lights of 290 watt with CFL light of 144 watt resulting into saving of 30,660 kwh/annum. Total Investment INR 1.65 lakh. Total amount saved/year INR 2.3 lakh.
- Installation of Turbo Ventilators on roof.
- Earlier total 5 exhaust fan of 5.5kW rating are used. Now 40 turbo ventilators are used for ventilation. Total Investment INR 6 lakh. Total amount saved/year INR 7.8 lakh

Energy Park

Under energy saving and energy management program, energy saving of air compressor and LED Lighting is carried out in Energy Park.

Agri Park & Tissue Culture

New experiments were initiated to use LED light for tissue culture plants. If this experiment succeeds, it will help in reducing energy consumption in two ways; (i) less energy consumption to provide light to the plants in tissue culture, (ii) less heat generation from LED bulbs as compared to fluorescent lamp resulting in to less energy required to maintain temperature in growth rooms. Tissue culture unit's hardening facility has been re-organized and re-assembled for roof and runoff water harvesting. Irrigation of green house has been shifted on solar power.

B) Technology Absorption

Plastic Park

In PVC pipe division new software was installed in few extruders & utilities for collecting online data on process details and this has improved overall control on process. At R&D laboratory new instrument viz. optical Emission spectrophotometer was installed for controlling the quality of metal parts used in manufacturing as well as in MIS/SIS products. Continuing with the efforts towards productivity improvement, Company has installed additional high precision all electric injection moulding machines with hot runner moulds for round and flat emitters. The Company has installed facility and developed thermoforming process for the production of tray for primary hardening of tissue culture Banana plant.

Energy Park

a) Solar Thermal

During the FY 2012-13, we have introduced new laser welding technology with full sheet Aluminium absorber in solar thermal flat plate collector production line. This technology enables production of solar absorbers with combination of Cu-Cu, Cu-Al & Al-Al material which improves product quality, performance & productivity. This will also enable us to produce air dryers suitable for drying farm produce in rural India, hygienically.

b) Solar Photovoltaic

Development of prototype Auto-defrosting PV Module for snow bound areas of Europe. Trial was highly successful. Modified Autoline Tabber & Stringer's hardware and software to make it suitable for cut cell module corresponding to 74 Wp module. Development and introduction of Sheet (EVA & Backsheet) cutting station with mechanized cutter in the manual line. Development of automatic framing machine for small modules by bench marking of foreign machine.

Agri Park & Tissue Culture

New automated machines have been introduced in primary and secondary hardening sections of tissue culture unit. These machines are capable of automatically filling trays/cups and transplant plants into it. This has helped in increasing our capability to harden more number of plants and reduce manpower requirement per plant besides producing better quality plants.

C) Research and Development

Plastic Park:

Jain Turbo Tape PC – A pressure compensating seamless drip tape.

Jain Turbo Tape PC is a drip tube with a continuous flow path with inlets that is separated into individual emitters by the design of the inserted ribbon using a cross over. Jain Turbo Tape PC compensates for pressure and allows for a uniform distribution of water greatly improving crop uniformity and energy usage. Each emitter along the line delivers uniform discharge within specified pressure compensating range. The design of the emitter allows the product to be resistant to debris in the line which is in agriculture water and can typically cause plugging problems of the emitter. Jain turbo tape PC allows pressure compensation in a very low pressure range that has been unattainable previously. Pressure compensation at 0.4 to 1.0 Kg/cm² at low energy levels is achieved and this has never been done before. The design is very cost effective and suited to high production speeds. It inhibits the clogging in the range which coupled with compensation overcomes all previous barriers to agriculture field design. These advantages translate to lower energy costs, water savings, improved yields and improved crop uniformity. Company has filed a application for patent which is pending.

Complete range of high precision jets have been developed.

In the area of MIS/SIS and pipes & fittings nearly about 160 moulds were developed for new products as well as for existing range extension, with added

new features. Metallic QC fittings in sprinkler systems replaced and developed with plastic molded fittings. All metallic headers in filtration and fertigation system changed with plastic headers. PE tubes with coloured skin on outer surface developed. It is available in white, brown and purple colours. White colour tubing is used for Greenhouse application, Brown colour for landscape application and purple colour for reclaimed water use. Pipes and fittings developed as per ASTM standard and the product range is widened. To cater the domestic market requirements coextruded celuka / PVC Integral foam sheet with coloured skin – 4 new colours on both sides developed.

Food Park

a) Fruit Processing

Product Improvement

- Extension of Clarified Juice concentrates for Papaya, Banana and Guava.
- Developed Mango, Banana, Guava, pomegranate Juice for In-house consumption.
- Replaced Liquid ring Vacuum Pump with Mist Condenser to Luwa Evaporator. Due to this product quality is improved.
- Installed Internal air circulation fan in Evaporative ripening chamber for even ripening of fruit.
- So product quality is improved. Installed multiple magnets and strainers to improve product quality.

Automation

Installed PLC based SCADA system for Preparation line and tanks. Due to this Benefits are as under:

- No Over flow of product
- Dry run protection to pumps, resulting in less maintenance.
- Automatic shut off in case of fail or malfunction.

b) Onion Processing

Efforts for improving microbiological quality of product using UVC hoods on cut onion and dehydrated onion.

Energy Park

Improvement in 4,000W BLDC pump controller for short circuit protection, overload, reduction in power dissipation to reduce heating. Presently under validation.

Battery-Less Solar Tracker Controller - This is unique design of Single axis Solar Tracking system which does not require any battery for its operation. No Manual setting, very easy installation, automatic system detection, automatic fault detection & correction, Very rugged electronic design to meet EMI-EMC & safety standards, Zero maintenance are some key features of the system.

- Field problem of 11W CFL luminary observed due cold temperature, we have improved design to function properly in range -20°C to +55°C of temperature.
- CFL lantern new version design started to reduce cost, manufacturing efforts.
- Inverter development for utilization of solar power when solar pump is not in use. This inquiry received from Rajasthan. Prototype development is complete.

- CFL lantern and CFL Street light product modification as per MNRE new specs and approved from MNRE.

Agri Park & Tissue Culture:

Studies on the molecular mechanisms of flowering: After the success in identifying flowering genes in banana and onion, we are now venturing towards identification of Flowering Locus T (FT) as well as Terminal Flower (TFL) in Mango (*Mangifera indica*). This crop has been taken under R&D simply because of its popularity as a fruit crop that is much suited for processing and onward for export. Our ultimate research aim would be to conduct functional expression studies to ascertain which among these are important in flowering. Similar studies are also underway in Pomegranate (*Punica granatum*) to study the roles of genes in flowering.

- Onion breeding program has resulted into development of new high solid and CMS lines. These new materials are under evaluation for their commercial exploitation.
- A new crop, Leek (*Allium porrum* L.) has been introduced and inhouse seed was developed for commercial cultivation.
- Trials on evaluation of oranges varieties suitable for processing on own research farm and farmers fields are under progress with very promising initial results.

A new protocol for Strawberry tissue Culture: Field trials of the tissue culture strawberry plants have given encouraging results at farmer's field. The research and development unit has handed over the system to the production unit for commercial propagation of the crop. In this way, our Tissue Culture Division is introducing its third product on a commercial scale.

- New tissue culture protocols for citrus rootstock have been developed and tissue cultured rootstocks are under testing in nursery.
- Biochemical and molecular characterization of two newly isolated methanogens was carried out and they were named as Methanosarcinamazei Met5BHJ & Methanosarcinamazei TMA3RMK. The above 2 isolates can be further utilized in our Plant to enhance Methane % with high Biogas yield.
- *Thiobacillus* culture development for H₂S reduction in Biological Scrubber.
- Standardization of Soil conditioner cultures as per requirement of Biofertiliser.
- Optimization of HRT, pH & Temperature for maximum Biogas Production.

R & D Expenditure

(₹ in Million)

Sr. No.	Particulars	2012-13	2011-12
a.	Capital Expenditure	11.68	269.51
b.	Revenue Expenditure	173.87	180.61
Total		185.55	450.12
c.	% of Revenue	0.53%	1.19%

Foreign Exchange Earnings and Outgo (₹ in Million)

Sr. No.	C.I.F. Value of Imports, Expenditure and Earnings of Foreign Currency	2012-13	2011-12
a.	C.I.F. Value of Imports Raw Materials, Components and Stores and Spares	5,010.57	6,288.91
Total		5,010.57	6,288.91
Expenditure in Foreign Currency (on Cash basis)			
i)	Interest and Finance Charges	577.70	450.94
ii)	Discount/ Commission on Export Sales	41.30	21.48
iii)	Export Selling/ Market Development	103.15	15.69
iv)	Travelling Expenses	26.13	24.73
v)	Law & Legal/ Professional Consultancy Expenses	46.93	31.93
vi)	Testing Quality & other Charges	143.49	90.37
Total		938.70	635.14
Earnings in Foreign Currency			
c.	FOB Value of Exports	6,113.23	6348.29
Interest and Other Income		-	-

21. Acknowledgement

The Directors take this opportunity to place on record their appreciation of whole hearted support received from all stakeholders, customers and the various departments of Central and State Governments, Financial Institutions, Bankers, the Dealers and Suppliers of the Company. The Directors wish to place on record their sense of appreciation for the devoted services of all the associates of the Company.

by order of the Board

Jalgaon, 14 August 2013

Sd/-
Anil B. Jain
Managing Director

Annexure to Board's Report – 2012–13



Statement of Particulars of employees pursuant to the provisions of Section 217(2A) of the Companies Act, read with Companies (Particulars of Employees) Rules, 1975, as amended up to date.

Sr. No.	Name of Employees	Total Experience (Year)	Designation	Remuneration Gross (₹)	Qualification	Commencement of Employment with Company	Particular of last Employment	Last Post	Employer	No. of Years (Previous Employment)	Covered Under 500000/ Category w.e.f.
1	Shri Ashok B Jain	30	Vice Chairman	19,633,092	B.Com	12.01.87	Own Business	Partner	Jain Brothers Industries	4	01.04.10
2	Shri Anil B Jain	28	Managing Director	19,633,092	B.Com., LLB	12.01.87	Own Business	Partner	Jain Brothers Industries	2	01.04.10
3	Shri Ajit B Jain	28	Jt. Managing Director	19,633,092	B.E.	11.01.85	-	-	-	-	01.04.10
4	Shri Atul B Jain	21	Jt. Managing Director	19,633,092	B.Com	01.01.91	-	-	-	-	01.04.10
5	Shri R Swaminathan	40	Director - Technical	8,844,948	B.Tech (Chem)	15.06.82	Service	Plant Manager	Flavours & Essence P. Ltd.	2.5	01.10.10
6	Shri Manoj L Lodha	15	President - Banking & Finance	6,007,584	CA	05.11.98	-	-	-	-	01.06.10

1. Shri Ashok B. Jain, Shri Anil B. Jain, Shri Ajit B. Jain and Shri Atul B. Jain are related to each other as brothers and sons of Chairman Shri B. H. Jain.
2. Remuneration includes perquisites and commission.