

**River, People and Industry:**  
The Politics and Pollution of River Chaliyar

( draft)

Report Submitted to  
Kerala Research Programme to Local Level  
Development

By  
Abey George  
&  
Jyothi Krishnan

January2002

## Contents

	Abbreviations	
	Acknowledgements	
1	Introduction	1
2	Grasim: The Process and Pollution	5
3	A History of Broken Promises	11
4	Corporate Irresponsibility: the Grasim Style	36
5	A Government that failed to govern	49
6	The struggle to protect their river	59
7	Conclusion: Did anybody learn anything?	71
8	Appendixes	79
9	References	

## Acknowledgements:

We deeply thank the common people of Vazhakkad and Mavoor area who spent long hours with us, recollecting the history of the factory and the struggle. A lot of individuals, including Mr. P.K.M. Chekoo, Dr. Achuthan, Mr. A.Vasu, Mr. C. Surendran, Mr. Sukur, Mr. Mohammed Kunji, and Dr. Hamid helped us in this effort. Long conversations with some of the above went a long way in the preparation of this report. They have also shared with us their personal collection of documents. In particular, we would like to thank the members of late K.A Rehman Sahib's family, who permitted us to go through his personal collection of documents.

We would also like to thank our research assistants Ms. Selvi and Ms. Ajitha, who helped us in this effort.

Last, but not the least, we thank the KRPLLD for the funding of this project which made this work possible. We would like to especially thank Dr. K.N. Narayanan Nair for his valuable comments and encouragement at various stages of the work.

Abey George and Jyothi Krishnan.

## Introduction

One can perhaps say that the foundation for industrial development in Kerala over the past 5 decades was laid by the first communist ministry in the state led by late Sri. E.M.S. Namboodiripad. This ministry put forward a development strategy that was focussed on industrialisation by utilising the rich natural resources of Kerala without exploiting the working class. It was a part of the same strategy that made them invite the Birlas to start a factory in Kerala. While doing so, the Birlas were assured of using to their satisfaction, the rich natural resources of the state which was considered to be plentiful at that

time i.e. they were permitted to use all the bamboo in the forests of Kerala at a nominal rate, the plentiful water in the river Chaliyar free of cost, and electricity at extremely cheap rates.)<sup>1</sup>

The factory began in 1962 with an initial capital investment worth Rs 16 crores, and over the years, it made profit which was many times the initial investment. Beginning with the Nilambur Valley, they increased their area of resource exploitation to cover the entire forests of Malabar, and by 1988, all the bamboo in the forests of the entire state was opened up to them. Added to this,

---

<sup>1</sup> In Kerala, during the 19 60's, 70's and 80's, the high tension and extra high tension consumers (big industries) were provided electricity at rates cheaper than what was available to domestic consumers. For further details see George and Krishnan, 2000.

eucalyptus plantation were raised by the Forest Department and the Kerala Forest Department Corporation to fulfil the promises made by the government to the Birlas.

The story of pollution begins with the claim of the Birlas that there was no such problem, there was only a colour change in the river water. Air pollution was not even considered as an issue. The subsequent stand taken by the management was that whatever little pollution was caused by the factory could be redressed by transporting the effluents by a pipeline to the Arabian Sea. Later the management implemented the recommendations of NEERI, but the pollution continued. Thereafter it was a long list of

committees, expert teams and review teams and the last one also said that there was no pollution, but only a slight colour-change in the river water (A.D. Damodaran Committee in 1998).

This study attempts to understand what happened between the agreements and promises, between the claim and the counter-claims, and what we failed to see amidst the long list of committees and expert opinions.

This study was conducted during 2000-2001. During this period, field work was conducted in the pollution affected areas of Grasim Industries belonging to Malapuram and Kozhikode districts of Kerala State. Extensive

conversations were held with various groups of people viz. people affected by pollution, people who lost their livelihoods when the river got polluted, present and former workers of the factory, trade union leaders, political party leaders, elected members of the Panchayat Raj Institutions, anti-pollution campaigners etc. A detailed Chronology of Events was prepared based on available published documents, as well as conversations with various people associated with this issue.

The report consists of 7 chapters.

Chapter 2 introduces the reader to Grasim Industries, the production



process as well as the pollution caused by it. Details about the pattern of water used by the factory, and of the effluents generated is also given.

Chapter 3 deals with the history of the factory as well as the anti-pollution movement. In this chapter we have attempted to trace the history of the factory as well as the anti-pollution movement. It also traces the history of breached agreements by the management and the government.

Since the Birlas were invited to set up a factory in Kerala, they enjoyed an upper hand in almost all their dealings with the government.

This is clear from the 1958 agreement onwards. Chapter 4 analyses how the monopoly over bamboo in the forests of Kerala was transferred to the Birlas through this agreement. This chapter also discusses the manipulation of a very shrewd corporate management, which highlights among other things, the governments own inefficiency in dealing with issue.

Chapter 5 discusses how the government and the KSPCB dealt with the issue of pollution, and how their inefficiency came to the aid of the management, especially in securing added subsidies in procuring resources, and in

postponing the implementation of pollution control measures.

Chapter 6 discusses the nature of the people's resistance against the pollution precipitated by Grasim, and describes how they continued with their struggle irrespective of repeated breach of promises by the management and the government.

In the concluding Chapter, questions are raised regarding what our society and the government learnt from the story of Grasim.

Some of the relevant documents, including the Original Agreement between the government and the Birlas, are given as Appendixes.

## Grasim: The Process and Pollution

The Grasim Industries started functioning as Gwalior Rayons Silk Mfg. (Wvg.) Co. Ltd., in 1962. They established their manufacturing unit at Mavoor with two divisions, producing pulp and staple fibre.

The manufacturing process that is undertaken in the factory includes two main activities, viz. pulping and bleaching.

Pulping is the process by which bamboo, eucalyptus and other mixed

hard woods are converted into pulp<sup>2</sup>. There are three different kinds of pulping- mechanical, chemical and chemi-thermomechanical pulping.

What is produced at Grasim Industries?

NO.	Division	Item	Quantity
1.	Pulp Division	Rayon Grade Pulp	4800 tons/month
2.		Paper	270 tons/month
3.	Fibre Division	Viscose Staple Fibre	2130 tons/month
4.		Sodium Sulphate	1355 tons/month
5.		Sulphuric Acid	2100 tons/month
6.		Carbon disulphide	373 tons/month

---

<sup>2</sup> Wood is primarily composed of three types of compounds: cellulose, hemi-celluloses and lignins. Other compounds present in wood include terpenes (the bases for terpentine), fatty acids, resin acids, phenolic compounds and plant hormones. Cellulose and hemicellulose make up the wood fibres and lignin is the main adhesive substance that holds the cellulose and hemicellulose fibres together. To produce paper products, the lignin needs to be removed from the wood to release the fibres: this is the process known as pulping(Christie and McEachem, 2000)

At Grasim, the method of chemical pulping is resorted to. There are two types of chemical pulping, Kraft and sulphate pulping and at Grasim the former one is used.

All methods of pulping require a lot of water, and the effluents generated are highly polluted. However, from amongst the three methods, mechanical pulping produces much less organic waste due to its high yield, whereas chemical pulping creates a lot of organic waste as it converts only 50% of the wood used into pulp. The other difference between the 2 methods is that mechanical pulping needs less of water, and less bleaching than

chemical pulping. However, chemical pulping produces stronger, higher quality pulp. From a commercial perspective, chemical pulping is more attractive as it produces better quality pulp, but from an environmental perspective, it generates a lot more of chemical waste, particularly sulphur compounds, and organic waste (Christie and McEachern, 2000).

At Grasim, the process in the pulp units begin with the bamboo and other hard woods being debarked, and then washed by a continuous stream of water. Following this the wood is chipped finely into uniformly sized chips. The wood chips are then cooked in what is called digesters

with sulphuric acid under controlled temperature and pressure (prehydrolysis). The chips are then washed in water. The residual liquor (pH liquor), is then drained out as effluent to the effluent treatment plant. The wood chips are further cooked with white liquor consisting of sodium sulphide, sodium carbonate and caustic soda in high-pressure steam. The cooked wood chips are then sent to the washing section, where the pulp is thoroughly washed in water in order to remove residual chemicals. This thick liquid will be filtered through the "knowter screen" to remove uncooked particles. The black liquor consisting of residual liquor and wash water is sent to the soda recovery plant where chemicals



and heat are recovered. The final pulp is washed at the bleaching section.

What is consumed at Grasim Industries?

No.	Division	Item	Quantity
1.	Pulp Division	Bamboo, Eucalyptus and other woods	16244 tons/month
2.		Water	41,000 m <sup>3</sup> /day
		a.) Manufacturing	36,000m <sup>3</sup> /day
		b.) Washing	2,000 m <sup>3</sup> /day
		c.) Cooling	1,000 m <sup>3</sup> /day
		d.) Domestic purpose	2,000 m <sup>3</sup> /day
3.			Other Chemicals- Salt cake, caustic soda, lime shell, chlorine, sodium chlorate, sulphuric acid, alum, sodium silicate etc.
	Fibre Division	Wood Pulp	2200 tons/month
4.		Water	10,650 m <sup>3</sup>

			/day
		a.) Manufacturing process	7000 m <sup>3</sup> /day
		b.) Cooling	3000 m <sup>3</sup> /day
		c.) Other uses	650 m <sup>3</sup> /day
		Other chemicals- caustic soda, chlorine, charcoal, sulphuric acid etc.	

Total Water Use- 51,650 m<sup>3</sup>/day.

## Bleaching

Regardless of the pulping method, once the wood chips have been converted into pulp the brownish pulp needs to be brightened. The type of bleaching depends on the pulping process used and the degree of whiteness desired. Mechanical pulp has a light colour and only requires mild bleaching. This is often

accomplished using hydrogen peroxide and hydrosulfite.

Chemical pulp requires more intensive bleaching because it is much darker than mechanical pulp. Traditionally, the most common method of bleaching used elemental chlorine to dissolve residual lignin, then added sodium hydroxide to extract the lignin. At Grasim, the final washed pulp is sent to the bleaching section, where it is bleached using chemicals and water. The chemicals used are sodium hypochlorite solution and chlorine dioxide solution. The brown pulp is bleached in 6 stages and the bleached pulp is stored in towers from where it is sent for cleaning and drying.

(refer to the schematic diagram in the appendix). In each of the above-described stages, enormous amounts of water is used to bleach the slurry liquid.

During this process of bleaching, organic compounds react with the chlorine to produce chlorinated organics (organochlorines) such as chlorinated phenols, alcohols, aldehydes, dioxins and furans. Many of these organochlorines produced during bleaching are toxic and persist in the environment—some are known carcinogens. As people became more aware of the threat posed by these compounds, the pulp industry world wide, was forced to develop technologies that limited, and in

some cases eliminated, the formation of organochlorines. However, at Grasim, we realize that the total organic chloride (TOCL) is not even measured in the effluent generated. The Grasim management was of the assumption that it was not present at all in the effluent. It was only after the Sengupta Committee in 1997, directed the Pollution Control Board to measure the level of TOCL and to set an upper limit, that the issue came into focus.

The bleached pulp is then taken to the Fibre Division, where the pulp is flattened out into sheets, and treated with caustic soda solution. The alkali is removed from the alkaline pulp, and then treated with

carbon disulphide, and thus the viscose is formed. This viscose is filtered, dewatered and allowed to ripen at low temperature. This viscose is extruded through spinnerettes to produce fibre, which is bleached and washed again, and then dried.

Water consumption at Grasim:

As we see from the table, the pulp division consumes water at the rate of 41,000 m<sup>3</sup>/day. The fibre division the consumption is 10,650 m<sup>3</sup>/day. So, a total of 51,650 m<sup>3</sup>/day of water is used by the factory, all of which is drawn from the Chaliyar river.

Waste water generation:

Waste water is generated from three sources, namely the water treatment plant, the pulp plant and the staple fibre division. A total of 40,000 m<sup>3</sup> of effluent water is generated from the factory, and this is discharged through two outlets into the river.

The table below gives the quality of the treated effluents from Grasim, along with the standards set by the Kerala Pollution Control Board .

The company had 2 legally accepted outlet points. One is at Elamaram, and the other at Chungappaly. The company was supposed to send only the treated effluents through the outlets, of which the Elamaram one was only to be used during emergencies. However, there were many illegal effluent

outlets through which the untreated effluents were discharged into the river.



Sl no	Parameter	Unit	Standards (Limits)	Quality observed
1	PH		5.5-9	7.1-7.4
2	Suspended Solids	mgl/l (max)	100	24-548
3	BOD	mgl/l (max)	30	6-20
4	COD	mgl/l (max)	350	425-448
5	Sulphide	mgl/l (max)	2	13.2-41
6	Pleuolic Compounds	mgl/l (max)	1	Nil
7	Oil and grease	mgl/l (max)	10	0-10
8	Mercury	mgl/l (max)	.1	nil
9	Zinc	mgl/l (max)	1	.7-1
10	Ammoniacal nitrogen	mgl/l (max)	50	2.47-8.3
11	Lead	mgl/l (max)	.1	.03-.08
12	Colour	APC units	X+10	400-2500

Before the treatment plant was set up, the effluents were discharged directly to the river. Thus for about one decade after the commencement of factory production, company was discharging all the polluted water, without any treatment to the river. However, even the functioning of the effluent treatment plant set up after a decade, was inadequate in treating the entire volume of effluents generated. The plant was able to treat only 50% of the total effluent generated.

## A History of Broken Promises.

The factory started functioning in 1963 and pollution came to be noticed from the second day of its working itself. Some of the images that come to the minds of people as they recollect that period are given below. "thick black smoke from the factory chimney" "waves of foul smell, coming on and off, as if a septic tank has been kept open," "thick, viscous liquid with a lot of wood chips in it" "lot of sluggish and dead fish in the river".

As early as 2.5.65, a meeting had been organised at Krishnaprabha Auditorium, Faroke to discuss the pollution issue, in which various

panchayat presidents were present. A resolution passed at this meeting has mentioned the work of a body called 'Chaliyar Defence Committee'.<sup>3</sup> It seems that a number of meetings were organised during this period, but it was only after 1973 that the anti-pollution activists organised themselves into a somewhat formal association, namely the Chaliyar Jala-Vayu Shudhikarana Samiti (JVSS). One of the formal meetings to mobilize the collective support of the panchayats affected by pollution was held on 24.9.73 at Imperial Hotel, Calicut. The then Mukkam panchayat president, Mr. B.P Unnimoyeen presided over the meeting in which apart from the

---

<sup>3</sup> \*For further details, see the chapter 6

panchayat presidents, representatives from trade unions including INTUC, AITUC, STU, AEO etc were present. It was at this meeting that a formal committee called the Chaliyar-Java-Vayu Shudhikarana committee ( Chaliyar Air & Water Purification committee henceforth referred to as JVSS ) was formed. Mr. B.P. Unnimoyeen was selected as president and Mr. K.A. Rehman, Vice president of Vazakkad panchayat, who later went on to become one of the crusaders of this movement till his death in 1998, was selected as Secretary of this committee. Presidents of the following panchayats were also part of the committee, viz. Mavoor, Pulikkal, Cherukavu, Kondotti, Vazakkad, Cheekode, Peruvayal and Faroke. This 19 member committee had 2

representatives from the trade union movement also, Mr.K. Sankara Pillai of AITUC Mavoor and Mr. Sebastian of INTUC Mavoor. At the first meeting, it was decided to hold a larger convention 3 days later at Mavoor in which MIA'S and other panchayat presidents of the affected area, and various socio-political leaders were to be invited. Two very strongly worded resolutions were passed in this first meeting.

Resolution No.1 of 24.9.73

*"Since the effluents released from the Pulp Division of Gwalior Rayons, and the poisonous gases released from the Fibre Division of the factory have put the lives of people living in the vicinity of the factory, to extreme difficulty esp. in Vazakkad*

*and Mavoor areas, this meeting appeals to the Government of Kerala; and to the factory management to take immediate action to solve this complex problem, once and for all".*

### *Resolution No.2 of 24.9.73*

*"We hereby warn the Chief Minister of Kerala, Home Minister and the management of Gwalior Rayons that in the event of immediate and practical steps not being taken to prevent the severe air and water pollution from the fibre and pulp Divisions of Gwalior Rayons, the people of this area will be prepared, to organise a strong protest against the same. We also state that the government and the Management will be solely responsible for the long term and far reaching consequences of such a peoples protest".*

*Presented by : B.P.Unnimoyeen,  
President and supported by Mr.K.A.  
Rehman, Secretary.*

The above mentioned larger meeting was held in the evening of 27.9.73 at Mavoor Tourist Home Auditorium. At this meeting, it was resolved to hold

a still larger, full day meeting on 6.10.73.

As per the earlier decision, a major meeting was held on 6.10.1973, at STU Office Auditorium, Mavoor. Representatives from different political parties and trade unions were present at this meet. A 101 member General Council and a 41 member Executive Committee was selected at this meeting. Panchayat presidents of Mavoor, Pulikkal, Cherukavu, Kondotti, Vazakkad, Cheekode, Peruvayal and Faroke were Executive Committee members. Beypore MLA Mr. Chatunni Master, Kunnamangalam MLA Mr. P.V.S. Mustafa Pookoya Tangal, Kondotti MLA Mr.M.P.M.A.Kurukkal, as well as



representatives of all the main trade unions such as AITUC, INTUC, CITU, HMS, STU, and political parties including CPI, CPM, Muslim league, and Congress were also members of the Executive Committee. It was decided at this meeting that the pollution problems should be brought to the notice of the District Collectors of Kozhikode and Malappuram, and to the company management, for prompt and immediate action. As the factory was flushing out its effluents into the river from Kalpatty to the river mouth at Farokke, the entire area was severely polluted (Refer Map in the Appendix). With the rise and fall of tides, the effluents were found to move upstream of the factory, esp. during the summer months when the

water flow in the river was less. Thus the effluent water could pollute the intake point of the company, i.e. the point from where the water is taken from the river by the company. There were occasions in which the company had to stop its production because of its own pollution.

Initially, it was the Grasim management which was constructing this bund to protect their intake from getting polluted by the effluents released from their own factory. But the temporary construction of this bund in the summer months led to reduction in the flow of water from upstream. This along with the continuous release of effluents increased the concentration

of toxic substances, creating a major drinking water problem for the people of that area. The JVSS protested against the construction of this bund by the company, which was essentially to protect their own interests. The Samiti asked the panchayats to take action, for legally, the river bed belongs to the panchayats. As the pressure was mounting on the company, the management withdrew from the construction of the temporary bund.

The construction of the bund was later taken up by the civil authorities as the pump house which pumps water to Calicut city was also located upstream of the factory, and the water there was also getting

polluted due to the above mentioned reasons.

As the drinking water supply for the Calicut city was getting affected, instead of instructing the company management to take immediate action to reduce the pollution, the civil authorities were spending public money to construct the temporary bund across the river. Which came to the aid of the management also.

As a result the Chaliyar Jala-Vayu Samrakshana Samiti felt that the civil authorities were giving undue protection to the company by indirectly keeping their intake point safe from polluted effluents. So the

Samiti decided to agitate against the construction of this temporary bund.

As part of the campaign, they conducted a series of corner meetings and on 17.12.73, they organised a boat campaign from Elamaram to Faroke. On 19th and 20th of December 1973, public meetings were held at Mavoor and Vazhakkad. The Samity also decided to block the construction of the bund on 22.12.1973 and they also asked the panchayats to take due action in the event of the initiation of bund construction work.

As the momentum of the agitation picked up, and as they blocked the construction of the bund on 22.12.73 the District Collector intervened and

a Conference was called on 27.12.73. This conference was attended by representatives from the management, JVSS, elected body members of the area, and government officials of the district. It was decided that the management should implement the recommendations of the Expert Committee which was set up on 30.7.72. Among other things, they also discussed how the effluents could be released directly into the sea. As we understand from the minutes of the meetings (See Appendix I), the conference resolved to appoint a Review Committee to review the progress in implementation of various recommendation made by the Expert Committee of 30.7.1972. The

Review Committee<sup>4</sup> comprised of 28 members including the Collector as the Chairperson. It seems that the management and the District Administration impressed upon the JVSS that the only possible permanent solution possible for the pollution problem was to take the effluents straight to the sea. It was suggested in the Conference that during the summer months, when the river flow was minimum, the effluents should not be discharged, but be stored in lagoons created specially for this purpose. On the assurance that this would be done, JVSS withdrew its plan to prevent the construction of the temporary bund at Elamaram. The concerned Resolution reads as

---

<sup>4</sup> Refer to Appendix for the full text

*"Resolved to withdraw the public agitation and to allow the temporary bund across the Chaliyar river to be constructed<sup>5</sup>".*

As per the decision taken at the Conference of 27.12.73, the Review Committee was constituted and its first meeting was held on 17.1.74 at the Club House of Gwalior Rayons factory. They reviewed the progress made by the Company in implementing the recommendations made by the Expert Committee. The Management impressed upon this Review Committee that all the recommendations of the Expert Committee were in the process of implementation. Regarding the recommendation to create a lagoon to store effluents during the summer

---

<sup>5</sup> Refer Resolution No. 8 of Appendix for the full text



months, the Company reported that it could not make any headway, as the land to house the lagoon belonged to the local people, who were not agreeing to the price offered by the Company. So the management posed the non-availability of land as the only hindrance to the creation of the proposed lagoons. The management then requested the Collector to revoke the provisions of the Kerala Land Acquisition Act and to acquire the land and hand it over to the Company. <sup>6</sup>

---

<sup>6</sup>“The company wants 25 acres of lands close to the factory for this purpose. This question of making available these lands by way of private negotiation was discussed, and it was found that private negotiation will not be feasible. The company has agreed to get these lands acquired under the provisions of the Kerala

Despite the setting up of the Review Committee, and a face to face negotiation and settlement between the Grasim management and the JVSS, it was found that the management was not doing anything towards the effective control of air and water pollution.

---

land Acquisition Act; and Sri Saboo promised to forward the required requisition in this regard to the District Collector. In order to construct the additional lagoons with the least possible delay, the Chairman requested the local members to use their good offices in securing advance possession of the lands when acquisition proceedings are initiated. The members promised to extend their cooperation in this respect and the company assured taking up the construction as soon as the lands are made available". Appendix for the full text

According to the agreement facilitated by the Review Committee, the bund remained at Elamaram for the summer of 1974. However by November 1974, the JVSS found that the management had not done much to control the pollution. Contrary to the previous years agreement to construct the temporary structure at Chungappally, the management was planning to go ahead and construct the bund at Elamaram itself. This angered the JVSS and they conducted a series of meetings in October and November 1974. On 30.11.1974, at a meeting at Kozhikode Imperial Hotel, the Samity took the following decisions.

- 1) To pressurise the collector as well as the management to implement the agreement reached between the JVSS and

the management, in the presence of the Collector.

- 2) Government should take all the responsibility to ensure that the effluents are not dumped into the river, but taken to the sea through a pipeline.
- 3) To oppose the construction of the temporary bund at Elamaram, which was contrary to the Review committee's recommendation of 17.1.1974, which was to construct the bund at Chungappally, 7 kms downstream of Elamaram.
- 4) To compel the management to put a full stop to the functioning of the acid plant within the Fibre Division of the factory which caused the emission of highly poisonous gases.
- 5) As poisonous gases were being emitted from both the Fibre and Pulp Divisions

of the factory, regular free medical check-ups should be organised to people living in the affected area, and necessary medicines should be distributed free.

6) It was decided to send a delegation of the following people to Trivandrum to take up the issue with the Ministers and the Government directly. They include Mr. B.P. Unnimoyeen, Mr. K.C. Ramachandran, Mr. E.T. Mohammed Basheer, Mr. K.A. Abdul Rahman, Mr. P.C. Damodaran Namboodiri, Sri P.K. Mohammed Haji.

7) The Muslim league was entrusted to organise a meeting of all political parties on 3.12.1974.

On 9.12.1974, JVSS held a Review meeting which was unofficially

attended by some of the Review Committee members. They discussed issues related to the construction of the bund and the management's assurance that they would construct the bund at Chungappally and not at Elamaram.

The opposition to the construction of the bund, expressed through a series of meetings and mass mobilisation, created a tense situation. The Government intervened once again, and called for another discussion of various issues at Rama Nilayam, Trichur on 16.12.1974. At this meeting, which was convened by the then Home Minister Mr.K. Karunakaran , an agreement was drawn up, known as the 'Rama Nilayam Agreement' (RamaNilayam Karar). According to

this agreement, the effluent was to be taken by a pipeline to Chungapally (6.4kms downstream from the factory) and discharged into the river. The basis for selecting Chungappally was that in any case saline water intrudes upto Chungappally during the summer months which renders the river water unsuitable for drinking and irrigation purposes. As part of the agreement, the management was asked to lay the pipelines to Chungappally, in a year's time.

This agreement was the first of its kind, in which both the state level political leadership, and the Government were involved in addressing this issue. Naturally, the people who were in the struggle, had

high expectations regarding the outcome of this meeting. They thought that unlike the earlier agreements, which were violated time and again by the management, this one would be implemented. The joint commitment by the political leadership, government and the management lent a greater legitimacy to this agreement.

The people of Vazakkad, who were in the forefront of the struggle, thought that the shifting of the effluent discharge point to Chungappally would at least temporarily reduce the pollution they faced. Here it is interesting to note that a pollution problem was addressed by the Minister for Law and



order (Home). It can therefore be derived that as far as the Government was concerned, they had succeeded in containing a law and order problem, while the pollution issue remained the same except for the fact that the discharge point shifted to Chungappally. Even this temporary relief measure was not implemented by the management for another 6 years. 6 years later, when the pipeline was actually laid, people realised that the tidal waves would bring back the effluents upstream, and so the pipeline too was yet another eyewash.

It was in 1974, that the Indian Parliament passed the Water Act, and according to this Act, any factory which discharges effluents into a

water body requires a permission to do so from the State Pollution Control Board. This permission would be granted by the Board only if the toxic elements in the discharged effluents confirmed to the standards laid down by the Board. According to this law, Pollution Control Boards were to be set up in all States, and one was set up in Kerala also (hereafter Kerala State Pollution Control Board, or KSPCB). Though the KSPCB was set up in 1974, Grasim industries applied for the mandatory permission to dump the effluents into the river, on 24th January 1975 only. The KSPCB granted permission up to 31.1.76, specifying the permissible upper limit of various factors in the

effluent, the details of which are given in the following table.

*TABLE I*

Effluent	Permissible upper limit
PH	5.5 - 7.00
Suspended particles	300 mg /l
BOD	100 mg /l
OIL/grease	10 mg /l
COD	250 mg /l
Colour	-----

During this one year period, Grasim was submitting the mandatory monthly reports to the Board. However, a year later in January 1976, they said that they "would try their best to implement all the conditions

stipulated by the Board ". Hence it was clear that they had not fulfilled the conditions laid down by the Board, but had continued dumping the effluents into the river. However it seems that KSPCB had not only abstained from taking any action against them, but they went ahead and gave them permission to discharge effluents for one more year also. Mean while Grasim was planning to set up a coal based boiler plant in the factory, which would aggravate the existent air and water pollution. This particular boiler had been dismantled from the Birla's own Nagda Rayons factory at Nagda, Madhya Pradesh, following public protest against the pollution it was causing. It was an extremely old boiler, and

the factory workers at Nagda had insisted on it being removed for safety reasons. Here it may be noted that the management had violated all the agreements on pollution issues with the people and the government since 1963. When the Rama Nilayam Agreement was signed in 1974, it was expected that at least this agreement would not be violated. Apart from the fact that they did not implement any of the conditions of the Rama Nilayam agreement, they were ruthless enough to import a dilapidated polluting coal based boiler, which was discarded at Nagda for the above-mentioned reasons, and set it up at Mavoor. Simultaneously they went seeking and getting yearly permission to discharge effluents to the river

from KSPCB, and submitting monthly reports saying that everything was under control!

The JVSS took up this issue once again, and as before the District collector called for a conference, and once again it was agreed that all previous agreements "would be implemented soon".

Meanwhile, the Estimate Committee of Kerala Legislative Assembly chaired by Mr. T.S. John visited the area on June 3rd, 1977. This committee submitted its first report with 25 recommendations to the government in February 1978. However the Action Taken Report was filed by the government only in 1980. The

committee found that out of the 25 recommendations, the action taken on 15 of them were unsatisfactory. The committee therefore strongly recommended that the management be persecuted for its arrogant and adamant stand on pollution related issues. During their field visit, the Estimate Committee had assured the people of the area that the setting up of the controversial coal based boiler would not be permitted in the factory. On July 5th, 1977 the people from vazakkad and other affected areas went to Trivandrum to stage a dharana in front of the Secretariat demanding the implementation of the Rama Nilayam agreement, and for taking punitive action against the Grasim management for blatant

violation of the agreement and for polluting the river

In 1979 through a mass action people demolished the Elamaram bund. As the discharge of the effluents affected the functioning of the factory and the drinking water distribution to Kozhikode city, the then labour Minister Mr. M.K Raghavan convened a reconciliation meeting on 25th March 1979 at Calicut Civil Station. At this tripartite meeting attended by 6 MLA's, 14 panchayat President, JVSS, and the factory management, it was decided that the factory would be laid off till all the conditions in the Rama Nilayam Agreement 1974 were implemented. It was decided to lay off the factory once again. Following



this, the company started work on the pipeline on 27th March 1980, and the work was completed by December 18th 1980.

Meanwhile other members of civil society, other than the residents of the area, began to involve themselves in this struggle. SPEC and KSSP were the 2 prominent groups who came forward. This apart, individuals like Dr. K.T. Vijayamadhavan and Dr. Achuthan took initiatives in conducting a series of awareness programmes regarding the impact of pollution on people's health, Dr. Vijayamadhavan emphasised the possibility of mercury and other heavy metal pollutants in the factory effluents, and cited the Minamata

episode to explain the dangers of heavy metal pollution. In 1981, a study conducted by Dr. K.T.Gopinathan of Calicut Medical college found out that the incidence of cardio - pulmonary diseases is higher in the Mavoor-Vazhakkad area and the rate of incidence was even higher than the rate found in heavily polluted cities like Delhi. As against 7% of the males and 4.9% of females in Delhi being affected by chronic bronchitis in 1981, the rate at Mavoor-Vazhakkad area was as high as 14% and 8.7% respectively (almost double). This means, that in the affected area, one single factory was causing more pollution than the combined effect of all the pollutive elements in Delhi.

Hence the local struggle and the supportive initiatives by various individuals and organisations mobilised public opinion in favour of the struggle to protect the river and the health of the people. This heightened public opinion forced the KSPCB to file a petition against Grasim Industries. The petition argued that the factory was discharging effluents through unauthorised outlets other than the one at Chungappally and requested the Court to restrain the company from discharging effluents through their unauthorised outlets, and to impose a penalty on the company officials for violation of the Water Act (prevention and Control of Pollution Act).

Though the Magistrate at Kunnamangalam issued an order restraining the company from using unauthorised outlets to discharge effluents, it permitted the use of the same in emergencies. Later, through a long -drawn legal battle, KSPCB won the case and the court removed the clause which allowed the company to release effluents through unauthorised outlets in 'emergencies'. However the court did not permit imposition of penalty on officials of the company who were responsible for the effluent discharge, and who were therefore violating the Water Act. One wonders what this means? On the one hand, the court was saying that the company

could not and should not use unauthorised outlets to discharge effluents, and on the other, it was saying that nobody could be held accountable in case of such an offence! similarly, KSPCB, which apparently initiated this legal crusade against the Company, kept complete silence regarding the unauthorised discharge (without adhering to the stipulated standards) through the authorised outlets!.

Meanwhile, Dr. K.T. Vijayamadhavan and 20 others filed a petition to the Rajya Sabha, against the pollution caused by the Company, and the Rajya Sabha Petitions Committee chaired by Mr. P.N. Sukul visited the area on March 24th 1982. In their report, the

Petitions Committee criticised the management for their, callous attitude towards pollution problems and their utter disregard for the health of the people.

This committee was also highly critical of the lukewarm attitude of the KSPCB. The Committee noted that the effluent treatment capacity of the plant was not matching the factory's production capacity, and suggested that the government must ensure that the factory take appropriate measures to restrict its production, so that the entire effluent can be treated. They were also of the view that there should be a regular monitoring of air pollution through periodic collection and

testing of air samples collected from the area.

Apart from the above-mentioned short -term measures, the committee also suggested certain long-term measures. For instance, they proposed that a legislation be enacted which will enable the government to impose penalties or even cancel the license of the factory in the event of non-compliance with prescribed pollution control measures. They also suggested that the government should have the power to press upon the factory to adopt the latest technology to monitor and control pollution. Similar to the recommendations of previous expert committees and tripartite discussions, this

committee also recommended that the factory should take the effluents straight, to the sea, to avoid the contamination of the river water.

The period between 1982 to 1985, was marked by some protests, especially during the summer months, when the lean flow in the river brought out the horror of water pollution. This period also witnessed debates about the relationship between pollution and health problems, esp. the possibility of cancer, and regarding the availability and ability of technology to solve the pollution problem



Once the pipeline upto Chungappally was in position, there were incidents in which the pipeline used to break open, on leak at the joints, thereby contaminating the fields and water bodies on the way. So there were regular protests by the local people living in the area through which the pipeline passed.

Whenever there was a protest, the Birla management was either arrogantly brushing it aside, or very skilfully taking it up with the trade unions, posing the threat of a lock-out. On March 24th, 1982, following another incident of the pipeline breaking, Grasim moved the High Court for police protection of the pipeline. The High Court not only

declined to sanction it, but strongly reprimanded the management. The Court said,

*“ The banks of Chaliyar, once a health resort, have virtually become a hell on earth. At least for one decade, the people there are suffering. The Petitioner Company has liberally contributed to this. If the State Government and the Kerala State Board for Prevention & Control of Water Pollution had taken effective steps, this could have been prevented long ago. The Rayons is an industry where the margin of profit is not only comfortable but considerable. It is to be remembered that one of the pollutants here is nothing other than mercury. Then what is the magnitude of the*

*threat to life caused by the effluent discharged from the Petitioner's factories, I need not say. Life, especially human life, should be not be so cheap in this country. "*<sup>7</sup>

During 82-85, the management went about reducing production as well as the number of employees, citing non-availability of raw materials as the main reason. According to a Works Study commissioned by Grasim in 1983, the report suggested that as much as 1418 employees had to be retrenched. Naturally this invited protests from the workers. Such strikes and lockouts continued till 1985, when the company closed down

---

<sup>7</sup> Justice K K Narendran, Judge, High Court of Judicature for Kerala. (From the judgement delivered on 30<sup>th</sup> March, 1982).

following a labour strike. This lock out lasted for more than 3 years, and proved to be a trump card which was very cleverly and tactfully used by the management in bargaining with the government for increased supply of raw materials at a shamefully concessional price. Through the post lock-out negotiations in 1988, the management was able to negate all the rights that workers had achieved after long years of struggle. Through this event, it was almost established that the company had the right to pollute and nobody could question this right.

During the 3 year lock-out, 13 employees committed suicide. Mr. A. Vasu and Mr. Moyeen Bapu of the GROW Trade union went on a hunger strike

demanding the re-opening of the factory. The mounting pressure from various trade unions forced the government to initiate talks with the Grasim management to re-open the factory. After 3 years of continuous struggle, the workers and trade unions of the company were ready to accept any kind of settlement. The then Minister for Industries, Smt. K.R. Gowri went to Delhi to meet the top management officials of the Birlas, to persuade them to re-open the factory.

The management realised that this was a golden opportunity for it to bargain with the government to secure added quantity of raw materials at further reduced prices.

In 1971, after the passing of the Vested forests Act, the government had vested 30,000 hectares of private forest which belonged to the Grasim management. The management had bought this private forest and had planted it with eucalyptus. Since the vesting of 1971, the company had always been complaining about the resource crunch it was facing. So the post lock-out conciliatory measures initiated by the government was used by the management to further press for raw materials.

Before the lock-out in 1985, GI was getting raw material from the government. @ Rs 550/ ton. After the lock-out, they were to get it @ Rs 250/ ton, for a minimum of 5 years!

Thus for re-opening the factory, the direct economic loss to the state exchequer was not less than Rs 5 crores per year. It may be recalled here that the open market price of eucalyptus in 1988 was more than Rs 1000/ton (The price in Assam was Rs 1,170/ton and in Maharashtra it was Rs 1,099/ton)

The reconciliation was one-sided. The government and workers gave into the management. While the management was able to pressurise the government to give into its demand for increased supply of raw materials, it did not accede to the workers demands. Most of the issues which had prompted the labourers to go for strike in 1985, such as hike in wages, remained

unresolved. Stranger still, the issue of pollution was not mentioned at all at these reconciliatory meetings.

Thus when the factory re-opened in November 10th 1988, the management was on a much stronger footing, with substantial bargaining power on labour and environmental issues. The threat of another lock-out was always in the air, preventing all dissenters and protestors from taking strong positions.

The factory trade unions agreed that they will not go on a strike for 5 years from October 27th 1988. From this point onwards, trade unions who were earlier sympathetic and at times co-travellers to the cause of fighting pollution, became



antagonistic to this cause. This shift took place because they were afraid that it would lead to another lock-out, on even the closing down of the factory. The management also realised this total shift in positions.

There were also problems within the anti-pollution camp. For example, there were organisations which took positions that pollution can be solved technologically and that was all that had to be done. There were some other groups which argued that the factory should not be permitted to work until the pollution problem was solved. The latter position could tantamount to the close-down of the factory, for according to the

management, they had taken all remedial measures within their capacity and following their economic logic, to solve the pollution problem. They had thus stated that they prefer the close-down of the factory to any more pollution control measures.

The period between 1988 to 1995, witnessed, protests against the air and water pollution, and a growing rift between the trade unions and the anti-pollution groups. As more and more areas came to be affected by the air and water pollution, and more and more reports started coming in regarding the incidence of cancer in the affected area, the protests began to intensify

once again. In 1994, during the tenure of K.A. Rehman as Panchayat President, the Vazhakkad Panchayat conducted a cancer survey and the result was shocking.

Results (Consolidated) of the medical Survey  
 conducted by Vazhakkad Panchayat (1994  
 November 22-30)

Ward No	Cancer patients	Cancer deaths after 1990	TB patients	Hear Patients	Ulcer patients	Kidney patients	Asthma patients	Consulant Headaches	Skindiseases	Epilpsy	Menatal Retardation	Leprisy	Elephantiasis	Problems with Eyesight	Other Diseases	Total
1	4	9	7	4	9	2	1 1	8	<sup>6</sup>	4	3	2	1	62	8	140
2	5	1 2	1 4	5	7	4	1 0	4	<sup>4</sup>	1 0	8	1	-	54	18	156
3	4	1 0	1 0	4	5	3	5	7	<sup>5</sup>	6	2	1	-	13	9	84
4	8	1	1	8	10	5	6	6	<sup>3</sup>	1	5	1	1	49	14	155

		5	3							1						
5	1	2	1	4	12	8	1	1	<sup>4</sup>	9	4	2	-	28	12	150
	0	1	2				4	0								
6	5	9	1	2	8	4	9	9	<sup>7</sup>	8	1	3	-	41	15	148
			6								2					
7	9	2	1	8	9	6	2	1	<sup>5</sup>	1	1	2	-	78	25	347
		0	9				6	1		2	0					
								8								
8	6	1	2	3	11	5	1	7	<sup>6</sup>	1	9	1	-	24	40	248
		9	4				2	2		6						
9	8	2	1	5	16	3	1	1	<sup>15</sup>	1	6	3	-	32	19	175
		3	3				0	0		1						
1	9	2	2	6	12	4	1	4	<sup>12</sup>	1	9	3	2	57	36	277
0		8	1				8	2		8						
1	1	3	2	9	18	6	1	5	<sup>14</sup>	2	7	2	-	76	28	326
1	1	3	7				3	8		4						

This spurred off debates about the causes of cancer. To what extent had

pollution caused cancer, was the most debated issue. The management claimed that they were not polluting the area, and that the incidence of cancer was due to the excessive smoking habits of the people. The trade unions stated that the effluents were treated and the level of pollutants subscribed to the standards stipulated by the KSPCB. They made their guess too, saying that the cancer may be due to the pesticide contamination in the food people ate.

However, the death of 3 workers on 23rd June, 1995 while they were repairing a faulty valve in the effluent pipeline at Chungappally, brought back into focus the entire issue of pollution as well as the

callous attitude of the management. It was found that the workers who died were not provided with any protective equipments, not even a mask, while they were working in chambers filled with noxious gases.

Let alone prosecuting the management for this serious lapse, the government did not even conduct a proper enquiry into the whole issue. The air samples collected a few days after the incident, showed very high levels of pollution, as against the stipulated standard of the KSPCB. The KSPCB filed yet another case at the Magistrate Court of Kunnamangalam against the Grasim management for the violation of the Water (Pollution and Control) Act. Admitting the petition,

the Magistrate, in an interim order, ordered an immediate stay on effluent discharge to the river on 4.9.95. The interim order was passed based on the air samples collected and analysed by the PCB on June 26th, July 1st and July 28th 1995. KSPCB argued that the chemicals in the effluent was much more than what was permissible. Irrespective of the court order, Grasim continued discharging effluents into the river. They argued that the court order was not against discharging effluents, but against discharging untreated effluents. It is pitiful to note that though the Court passed the interim order on 4.9.95, the final order which reinforced the interim order was

passed only on 7.2.1998 (almost 3 years later).

Following the death of the 3 workers, as usual, another Expert committee was set up to look into the pollution issue. This committee submitted its report in January 1996. On January 12th 1996, KSPCB Member-Secretary, rejected the company's application for discharging effluents into the river (it was for the first time since the getting up of the Board in 1974, that permission was being withheld) and passed an order forbidding discharge of effluents into the Chaliyar. The Grasim factory simply ignored this order and approached the Water Appellate Authority Chaired by



Justice C. Khalid. The Appellate Authority while agreeing to the KSPCB's observations regarding pollution, stayed the order issued by the Board on April 30th, 1996. They made it very clear that this time the stay order was issued keeping in mind the 3000 employees who would lose their job, and that this should not be repeated in future. In the event of a violation by the management in future, the KSPCB was asked to bring the matter to the notice of the Appellate Authority, which never happened. The Appellate Authority also considered the option of taking the effluents directly to the sea by way of a pipeline. Grasim industries argued back saying that it was not economically viable. The Appellate

Authority agreed to this proposition, and even went further in agreeing to the alternative suggested by Grasim which was to extend the effluent pipe to the middle of the river with the outlet (spout) below the water surface. The KSPCB was apparently worried about the pollution standards followed by Grasim and had filed a case against them. But who will pay for the Board's own double standards?.

Irrespective of all the claims by the Grasim management which said that there was no pollution, and irrespective of the belief of some that technology could and would solve the problem of pollution, the river was dying. A study conducted by the National Institute of Oceanography

in 1994, found that the living organisms in this river was significantly lesser than in less polluted rivers. A comparative study of Chaliyar and Korapuzha rivers found that the density of living organisms in per CU.M.. in the Chaliyar ranged from 63 to 1600 per CU.M.in the pre-monsoon period. The corresponding figure for Korapuzha was 1105 to 17967 per CU.M. This data shows that the maximum density in Chaliyar is somewhat close to the minimum in Korapuzha.

K.V.K. Elayath, a Grasim worker filed a PIL at SC on 18.4.1996 regarding the health impact of air and water pollution, praying the Court to order remedial measures and

to compensate the victims of pollution. The SC directed the Chairman of KSPCB on 23.6.1996 to take immediate action on this matter. It is very strange to note that though the KSPCB was at that time fighting a case against Grasim for its violation of pollution norms, it replied to the SC defending the measures taken by the company to reduce pollution.

From 1996 onwards, the struggle against pollution further intensified as more and more people were dying due to cancer, (the victims started making their presence felt). The effluent pipeline broke at 6 places on March 11th, 1997, and the company's

attempt to repair the pipeline was forcefully stopped by the local people. The people demanded that the effluent be treated properly, and that they be provided clean drinking water. On an earlier occasion when the drinking water of the area through which the pipeline was passing had been contaminated by the effluents leaking from the pipeline, the people had protested and the company has offered to provide piped drinking water to them. This offer was unfulfilled, and people were insisting on it. Even though the company managed to repair the pipeline under heavy police protection, it became clear once more that the so-called pollution control measures that were

supposedly taken by the company were ineffective.

It is pertinent to mention that this time it was the trade unions who were openly defending the company against the anti-pollution groups. On March 30th, 1997, the trade unions condemned the moves by the anti-pollution groups, saying that these groups were interested in closing down the factory and that they were not ready to accept the fact that scientific and technological advancement could solve the problem of pollution. They went on to say that the effluents from Grasim were treated and the pollution levels were much below the limit set by the KSPCB.

On 2nd April 1997, The Chaliyar Action Council organised a major march to the Secretariat at Trivandrum. They demanded that the Government should take over the pollution control process in the company and that the Birlas should pay for the same. They also demanded that the sulphuric plant within the factory which was one of the major causes of pollution, should be shut down. The other demands included the following:

1. The purified effluents should be taken to the sea through a pipe.
2. The work of the diesel thermal power plant should be stopped.

3. The Carbon disulphide plant should be shifted to a place with lesser population density.
4. Adequate compensation should be given to the victims of pollution, and regular medical camps should be conducted to identify health problems of the people of the affected area, especially cancer, and provide free medical aid to them.

As usual, the government responded with the getting up of yet another committee under the Chairmanship of Mr. B. Sengupta from the Central Pollution Control Board<sup>8</sup>. More than a year later, this

---

<sup>8</sup> The recommendations of the Sengupta Committee Report are given as Appendix §.



committee, in its report submitted in August 1998, made 28 recommendations to be implemented.

On December 10th 1997, which was also World Human Rights Day, the Samyukta Samara Samity organised a major protest march towards the factory in which they declared that the factory should be closed down if it was unable to prevent pollution completely. However, the momentum created by this march could not be sustained as a leader like K.A. Rehman was unable to fully involve himself in the struggle as he was undergoing cancer treatment. He died a year later on January 11th, 1999.

The death of Sri K.A. Rehman due to cancer, convinced the people of the whole area that it was pollution which was causing cancer. The link between cancer and pollution had been a highly debated issue but when cancer began to claim the lives of those who lived amongst them, especially the life of their leader, what was a doubt in their minds, became a conviction. It was at this point that they launched what they called the final protest, a protest for the right to life on 26th January 1999. An indefinite fast was launched by Chaliyar Action Council in front of the factory. On March 14th 1999, Grasim Industries suspended its production citing non availability of raw material as the

main reason. They put up the application for closure under the Industrial Disputes Act. The government rejected this application and at the behest of the trade unions initiated various negotiations with the Birlas.

Meanwhile, the Birlas were planning to sell off the factory to Moonlight Chemfab, a newly registered chemical company based at Indore. There were a lot of protests from the trade unions. Chaliyar Action Council demanded that the management should compensate the workers for the loss of employment, and the victims of pollution.

Finally when the company wound up in 2001, some compensation was given to the workers, but there was no mention of compensating the victims of pollution.

Corporate Irresponsibility: the Grasim Style.

For the Birla group of business houses, this factory in Kerala was one which produced the raw material for their rayon producing factories at Nagda and Gwalior. As they came to Kerala on invitation, they were always enjoying an upper hand in all the negotiations with the government. So when they signed the first agreement with the government of Kerala on May 3rd 1958, they signed to set up the factory as if they were doing a favour to the state. They bargained well in order to get the raw materials, almost free. Not only that, in this skilfully drafted agreement, they

had ensured their monopoly over pulp production in the state. As we see in the agreement they were ensured 'exclusive' rights to extract any natural resource from the area earmarked for them. In 1958, when the agreement was signed, the area was limited to Nilambur Valley. However in 1962, when the factory was ready to begin production, through a Supplementary Agreement, the area of their reach was increased to include a substantial portion of Malabar i.e Kozhikode, Wayanad and Nilambur forest divisions. This was only the first of the many supplementary agreements that were to follow. By 1985, the entire forest area in the state except the Quillon Circle was set

apart for bamboo and eucalyptus extractions.

In 1967, Grasim's reach was extended up to Trichur, Vazhachal and Perumbavoor forest divisions. By 1984, the entire forest area of the state covering Malayattoor, Kochi, Ranni, Achenkovil, Trivandrum, Tenmala and Punalur divisions was also given away to the factory. The only forest circle left was the Quillon circle, and as a part of the negotiation to re-open the Grasim factory, in 1988, after the 3 year lock-out, Grasim managed to lay their hands on the Quillon circle too. This is to say that since 1967, the forest tracts of North and Central Kerala was open for Grasim's

plunder, and since 1984 practically the entire forest tract of the entire state was aside for them.

This manner of slowly but surely increasing their grasp over the forest tract of the state, is an example of the shrewd negotiation skills of the company. When they began in 1958, they had asked for only the Nilambur Valley, which the government very readily gave to them, almost free (@ Rel. per ton). Keeping Nilambur Valley in focus, the Birlas drafted the agreement in a manner that would suit their interests for a very long time. For example, the very first condition of the agreement was the one which gave "exclusive right and license" to

fell and cut bamboo from the Nilambur Valley.

*Condition No. 1. a)" The Company shall have the exclusive right and licence for a term of 20 years reckoned from the date of actual commencement of the regular working of the factory, subject to the restrictions, terms and conditions, here in after contained to fell and cut bamboos for the purpose of conversion into rayon grade wood pulp or for purposes connected with its factory and to remove the same from such areas in the Nilambur*



Valley as are hereinafter more particularly described"). This issue of exclusive right is stated time and again in the agreement.

#### Condition No.2

" The company shall have the exclusive right to extract bamboos as aforesaid from the areas in the Nilambur Valley hereinafter referred to as the "Contact Areas" as described in the Schedule hereto and in accordance with such rotation as the Chief Conservator of Forests, Kerala, may in consultation with the Company from time to time decide, and to the intent that the Grantor shall at all times give to the Company reasonable facilities to enable it to

extract its requirements for operating a hundred tons per day wood pulp (rayon grade) plant which requirements are presently estimated at 1,60,000 (One hundred and sixty thousand) tons of bamboos yearly. It is further agreed that if the Contract Areas are not capable of yielding to the Company the said quantity of bamboos annually, the Grantor shall permit the Company to fell and remove bamboos from such other areas in proximity of the Contract Areas to be specified hereinafter in the said Schedule and described therein as "Additional Contract Areas" as will enable the Company to obtain the aforesaid quantity annually."

Again, in Condition No.4, the exclusive right of the company to extract resources were extended to additional areas also. Condition No.4

" The grantor undertakes that the contract areas and additional contract areas will be exclusively reserved for the Company and he will not during the continuance of this agreement grant any lease or concession within this area to any other person."

Through these clauses, the company ensured that they will have the exclusive right in Nilambur Forest Area, and all so-called 'additional contract areas'. By condition No:13, they ensured that the company will

*enjoy this exclusive right extending beyond the initial 20 year period. The condition reads as*

*"13. The company will have the option of renewing the lease for further periods of 20 (twenty) years at a time on the same terms and conditions as these presents, except tht the rate of seigniorage payable on bamboos will be liable to revision at ten year intervals after the first twenty years."*

When the contract was signed, it was with the understanding that " the grantor shall ... at all times give the company reasonable facility to enable it to extract its requirement for operating a hundred tones per day wood pulp (rayon grade) pulp." (Condition

No: 2 of the Original Agreement-Appendix?). However, as we read further, we find that the Government had agreed to wait for a period of 3 years after the commencement of the factory (a date about which the government did not have a clear idea) before permitting any other industry to extract resources from the area (contract and additional contract areas) earmarked for the Birlas. This was to ensure that in future if the Birlas wished to increase their production capacity from 100 to 200 tonnes per day, they would not have to compete with any other industry in procuring raw material. In other words, the agreement gave the Birlas sole right over raw material.

The main reason cited for inviting the Birlas to set up a pulp factory here was to initiate and facilitate industrial development in the state. Politically, it was also to prove the point-that contrary to the claim of the opposition, the communist Ministry was capable of getting industrial houses like the Birlas to set up factories in Kerala. It was expected that more of such industrial houses will come to Kerala and thus the industrialisation process will be launched in the state. However, the Agreement with the Birlas gave them exclusive rights over the forest resources, and excluded any other forest based industry from setting up their operations in the state. In each of the supplementary agreements

that were to follow, the management was able to secure further concessions.

Once the factory started functioning in 1963, the company used the employees as scapegoats for bargaining for additional resources at cheaper rates. Within 2-3 years, the company realised that the bamboo resources would not last long at the current rate of extraction. So it wanted to purchase 30,000 acres of private forest in the Malabar area to raise eucalyptus plantation. They came to an agreement with the government. whereby it was agreed that the government would not acquire this land for the next 60 years. However, this land,

along with other private forests of Kerala, got nationalised after the passing of the Kerala Forest (Vesting of Private Forest) Act, 1971. Thereafter, the Birlas kept reiterating this loss while negotiating with the Government for more resources. All the subsequent agreements were made use of by the Birlas in securing more and more concessions from the Government on the pretext that additional resources would help them to give full employment (30 days a month) to the existing workers.

The functioning of pulp factories require quite a lot of water. The Grasim factory needed- litres of water a day. The Grasim factory was meeting all its water requirements by pumping water from the river, free of cost, without even a contract (free access to free resources!). A substantial portion of this water was discharged back into the river, in a heavily polluted form, without any proper treatment. During the first 10 years of its working, the factory was discharging the untreated polluted



effluents, straight into the river. At that time they had not even set up simple lagoons or aerators. This freely taken water was not only used for the processing of pulp in the factory, but additional quantities were pumped to dilute the polluted effluents, and this was thrown back into the river. Hence dilution was the only so-called pollution control measure in use at that time! As the anti-pollution agitation gained strength, the company started discharging the effluents in an increasingly diluted, from, during the nights so that it would not be so starkly visible.

By making pulp out of bamboo that would otherwise flower and perish (!) and through this process, giving employment to 3000 people directly and 10,000 people indirectly, and producing rayon grade pulp for the country, thereby saving valuable foreign exchange, the company claimed to be doing a great service to society. It is a fact that the management employed a large number of people, on a daily wage basis, and used them to increase their bargaining power at various levels, be it to bargain with the anti-pollution campaigners, or the government or the political and trade union leadership.

The nerve centre of the anti-pollution agitation was the Vazhakkad area which was the biggest victim of the pollution. Whenever the anti-pollution movement gained strength and momentum, some of the campaigners were absorbed into the workforce of Grasim. Many of those who were in the forefront of the movements, and/or their relatives were absorbed into the workforce, in this manner. Through this the management was not only able to weaken the intensity of the struggle, but also able to raise doubts in the minds of the people regarding the integrity of some of those who were in the forefront of the struggle. This kind of arbitrariness by the management in employing people created opportunities for political and trade union leaders whereby they could use their

power and influence in getting people recruited as casual labourers in the factory.

When the number of casual labourers began to increase, each casual labourer used to get only 13 days of work a month. This had led to labour unrest in the factory on many occasions. The labour dispute negotiation would always end up in the management's demand for more raw materials. Their explanation was that the factory was not able to function in full plant capacity due to shortage of raw material, and hence they were not able to provide full employment to the labourers. On every such occasion, the management would place the onus on the government and say that they have requested the government to allot more raw materials. The management also advised the trade union leadership to use their 'goodwill' with the government in procuring more raw materials for Grasim.

By 1974-75, the management had raised the alarm that the factory may close down for want of raw materials. They used to constantly remind the labourers and the government that it was only their "cooperation" that would prevent the factory from closing down. By closing down the factory between July 5th 1985 and November 10th 1988 following a labour strike, the management sent the message that closing down the factory was not a problem at all for them, and that if the need arises they would close it down forever. During the negotiation to re-open the factory in 1988, we find that the company was able to force the government and the trade unions to accept all the conditions laid down by them. We need to note here that, a strike that was initiated by the labourers was resolved 3 years later only after accepting all the conditions laid down by the management ! Though it was the labour strike that was cited as the reason for the company's closing down for 3 years , in reality, it was the growing protest and public opinion against the pollution caused by the factory which was the main reason. In the negotiations for the re-opening of the factory in 1988, the prime concern of both the government

and the trade union was in somehow re-opening the factory. Hence, let alone laying down conditions, there was not even a mention of the pollution issue. To an outside observer, it was almost as though the government and the trade unions would not rake up the issue of pollution in future, such was the compromising stance taken by them. So, the company turned this 3 years lock-out fully to their advantage.

After 1988, we see that the trade unions took up the responsibility of countering the anti-pollution protests. It was the trade union leaders who strongly argued that the level of pollutants in the effluent was well within the limits prescribed by the KSPCB, and hence they said that the argument that the factory was causing pollution was totally false. The trade unions saw the anti-pollution struggle as an attempt to close down the factory. What we need to understand is that the skill of the management was in posing the issue of pollution as a trade union VS affected people issue. So, when the issue of the carcinogenic nature of the factory pollution came up, the explanation given by the trade union was that it, was not the pollution from the factory, but the pesticide contamination in the vegetables consumed by the people of the area which caused cancer.

---

### **Box:Workers Health and Medical Compensation**

One of the key issues to be addressed by factories using/producing chemicals of toxic nature, is the health of its workers. The health of the worker who works within this environment, and who will come in direct contact with these chemicals, is a matter of grave concern. There were a

series of labour disputes, strikes and negotiations for ensuring medical claims, health insurance etc for the workers of Grasim. Initially trade unions played a critical role in legitimising these demands.

Later, once this system of medical check-up and medical insurance got established, vested interests began to operate in this front also. Even though this factory was not declared as a chemical factory, many toxic materials such as \$ were used in the production process. Routine medical check-ups were held for the workers in a few specific hospitals in Calicut. Blood, urine etc were checked. Soon, this process got subverted, and reduced to a mockery, whereby all the parties fooled each other for a mere pittance. As per the designed procedure, workers had to be checked in one of the following hospitals: Koyas Hospital, National Hospital or Calicut Nursing Home. They would be treated for any illness and the actual bills were reimbursed by the Company management. If properly conducted, this would have left us with a valuable record of changing health

profiles of the workers in the company. However, the agents who functioned between the hospital and the workers, provided workers with false documents stating their illness, and they would pay the workers a maximum sum of Rs. 1000. The workers would get this amount at home, without even going for a check-up. Staff in the hospitals, Company staff, workers, agents, all got a share at the cost of the health of the workers. The company management was happy because everything was under control and going smoothly. It has been reported to us, during personal conversations with the workers that even some of the trade union leaders had a financial stake in this process.

The company used to distribute bottles of 'Dashamoolarishtam' and vitamin tablets to the workers on a monthly basis. It is reported that though these arishtams were specifically made and ordered for the workers, its quality was suspect!

This shows how lightly and flippantly an issue as serious as that of health was dealt with. Neither the management who resorted to such practices nor the workers who accepted what was given free irrespective of whether they needed it or not, were critical of this routine doling out of medicines. The management esp.

benefited out of this process, for whenever there was a public hue and cry about the health of the residents of the Mavoor- Vazakkad area, the workers were peaceful. Had the workers been more conscious of their health problems, there would have been a possible alliance between the workers and the public.

When the trade union was asked the question of whether they wanted employment or life, they said that they even if they lost their lives, they wanted their jobs. ('Jeevan poyalum joli venum') A wrongly framed question, but an equally absurd answer...

---

The manner in which the company evaded implementation of pollution control measures is a clean example of the irresponsible attitude of the management. In almost all conferences, and meetings which were held to discuss the finding and recommendations of various review/expert committees, the management would agree to implement all the recommendations related to pollution control and then they would keep silence. This was a repeated strategy.

Within few days of the commencement of the factory, the people of Vazhakkad were protesting inside the factory premises. The thick black smoke and the viscous, foul - smelling polluted water that was released into the river, was much beyond what the people could bear with. When the protest took place, though the management took the help of the district administration and the police in containing this apparent 'law and order' problem, they found that a better strategy would be to console the protectors by holding negotiation meetings with them. Way back in 1962 they said that pollution was just a starting problem and that this

could be resolved by taking the effluents through a pipe to sea. Needless to say, pollution continued, protests continued, and more assurances were given. This game continued for 37 years, till 1999.

The story of the bund at Elamaram will further illustrate this hide and seek game of assurances. As the water flow in the river falls during summer, a temporary bund for the summer months, built by the management at Elamaram separated the fresh water from the polluted and saline water. This bund protected the intake points of the factory and the pumping station at Koolimadu from where water was taken to the city of Calicut. But when the bund was made, the entire stretch of the river downstream of the bund became thoroughly polluted. In effect from October-November to May-June when the monsoons begin, the portion of the river downstream of the bund was transformed into a dirty, polluted sewer. This in turn contaminated the wells situated by the side of the river. Thus not only did the river become unfit for drinking, bathing, washing, and irrigation, but the other drinking water sources like the wells also got contaminated. So the bund became a very contentious issue during the summer months. Needless to say, people strongly agitated against the construction in 1973, but gave in after a conciliatory meeting convened by Collector. They gave in only because the bund was protecting the drinking water source of the Kozhikode city from getting contaminated, and thereby risking their own drinking water sources. However, all promise of pollution redressal made by the management at this conciliatory meeting was violated, and in 1974, people demolished the bund.

After the infamous Rama Nilayam Agreement of December 16th 1974, in which the management agreed to build a regular to cum-bridge at Chungappally, and to lay pipelines to take the treated effluents beyond Chungappally, there were hopes of this issue getting resolved, at least temporarily, but as usual the management slept over it for the next 6 years. It was only after 1979, when angry protectors broke the Elamaram bund and the polluted water intruded into the company's own intake point, which halted the production process, that they some any started laying the pipeline to Chungappally. But since the promised regulator was not constructed at Chungappally, the polluted waters which had been taken to Chungappally through the pipeline, began to move upstream with the tide and so the problem surfaced again. This rejected the earlier stance of the management that if the effluents were taken by the pipeline to Chungappally, then there was no need to treat it. As the polluted water started coming back upstream, the bund at Elamaram had to be constructed again. Almost every year there would be agitations, following which meetings would be convened by the Collector/R.D.O and some more decisions would be taken regarding Pollution control to the extent that the protectors would somehow agree to the construction of that years bund.

Though difficult to believe, this drama continued till 1999 when the regular to cum-bridge (which was promised during the Rama Nilayam negotiations of 1974,) was finally built at Kavanakkal.

Their routine neglect of almost all recommendations made by various review/expert committees during their working history makes clear the management's total disregard for all democratic institutions and grievance redressal mechanisms.



Whether it was the recommendation of the Estimate Committee of the Kerala Legislative Assembly chaired by Mr. T.S. John in 1977, or the recommendations of the Rajya Sabha Petitions Committee in 1996 (89th Report), or the Sengupta Committee Report of 1998, the story is the same. The Environmental Committee of Kerala Legislative Assembly chaired by Prof.A.V. Tamarakshan further recommended that the Sengupta Committee report should be implemented in full letter and spirit. The Estimate Committee of the Legislative Assembly (1977) after seeing the Action Taken Report filed by the Government in 1980, strongly recommended a prosecution action against the management for its "adamant and arrogant" stand.

We need to understand that even court orders were not spared from the management's arrogance and their lack of respect for democratic institutions. For eg: after admitting the petition of the KSPCB on 4.9.95, and considering the emergency of the situation, the First Class Magistrate of the Kunnamangalam Court in its interim order stayed the discharge of effluent into the river. However Grasim continued to discharge the effluents and gave their own explanation for the court order. They said that the court order was not to stop the effluent discharge, but to stop the discharge of untreated effluents.

Since this was a clear case of contempt of court, a contempt of court case was filed against the management, and they had to take a bail for the same.

Though the management's incorrigible attitude may seem frustrating to many an onlooker, they continued with their manipulations till the very end. Needless to say, the government's inefficiency and lack of will aided the

management. But equally important is the regulatory role that can be played by members of civil society. If we agree to the fact that the Grasim management is guilty of very grave mistakes, then are we ready to make them accountable to society at large?

## A Government that failed to govern

Kerala, being a part of the Indian Union, which is a declared welfare state, has the responsibility to govern its resources and people in a way that ensures the welfare of all its citizens and the protection of its environment. While exploring the history of Grasim we understand that not only has the government totally failed in performing the above mentioned constitutional responsibilities, but it has chosen to facilitate the most unethical and unjust exploitation of its forest and water resources, in order to satisfy the ever-increasing greed of

the Birlas. All of this, the government explained as efforts towards industrial development, and through it, employment generation in the state. While it is a highly debatable question as to whether the setting up of this factory actually led to industrial development in the state or not, it a fact that the Government reduced itself to an almost silent spectator as Grasim packed off from the state, after having made a major contribution to the ill-health of the factory workers and to the residents of Mavoor-Vazakkad area and putting at risk, the health of the children yet to be born on the banks of the Chaliyar. ....

In 1958, when the first Communist Ministry in the state invited the Birlas to set up this factory which would exploit the forest and water resources of the state, the Communist government under the leadership of Sri. E.M.S. Namboodiripad was in a hurry to make a political statement to those in the opposition. They were replying to the opposition's allegation that the communists who had shut down factories through their labour strikes, were not capable of bringing industrial progress to the state. The fact that they were able to get one of the biggest industrial houses in the country to set up their factory here, was considered as a major political success at that

time. But the price that had to be paid by the forests and tribal communities of Kerala, the Chaliyar river, and the people of the Mavoor-Vazhakkad area was never considered.

As per the agreement signed between the Government of Kerala and the Birlas on May 3<sup>rd</sup> 1958, the government had the responsibility of providing the Birlas with sufficient quantities of bamboo (@ Re 1 per ton) almost free of cost. The government not only took on the responsibility of meeting the raw material requirements of a private industry, but it also placed this on top priority. In order to meet the conditions of the agreement, the government opened up its bamboo

forests to the Birlas, and when these forests fell short of the company's hunger for resources, the government even gave away its under-grown eucalyptus plantations at subsidised rates. We have to note here that these eucalyptus plantations were raised on hitherto ecologically valuable shola forests and grasslands, under the World Bank's Social Forestry Programme. While we may be able to comprehend the economic loss incurred to the state exchequer by the subsidised supply of bamboo, eucalyptus and other raw materials to the company, we are yet to acknowledge the ecological loss incurred due to the destruction of unique and valuable shola forests and grassland

ecosystems. Today, as the summers witness the drying of rivers and wells throughout the length and breadth of the state, and we wait in long queues to collect our quota of drinking water supplied through tanker lorries, we perhaps may realise that the real value of bamboo and shola forests, and precious grasslands, may not be captured in monetary terms. It was the state's irresponsibility that allowed the Birlas to plunder its forest wealth, to make pulp through a highly polluting process and thereafter flooding the Mavoor-Vazhakkad area with toxic effluents. Though it was the 1958 agreement which gave the Birlas the initial access to Kerala's forest tracts,



they were able to tactfully renew this agreement a number of times, and in some cases even before the scheduled time of renewal. This periodic renewals which gave them increased access to the forests of Kerala which hastened the pace of their destruction, took place during the tenures of both left and right governments, and hence both the blocks can not wash their Lands off this grave mistake. It is shameful to see that never was the implementation of pollution control measures placed as a precondition to be fulfilled by the company, while resuming resource contracts with the government.

As we mentioned before, it was economic development through industrialisation that was cited as the main aim of inviting the Birlas in 1958. The Marxist critique of this process of industrial development was that the interests of the workers was not given due consideration. However, when they themselves invited the Birlas here in 1958, the interests of the Birlas was given a priority over that of the workers<sup>9</sup>!

---

9

It seems that 2 agreements were signed in 1958 between the government and the company management. One related to the raw material supply by the government to the Birlas, and the other related to the general functioning of the company. During the labour strike between 1985 and 1988, it was the management who disclosed information regarding the latter agreement through a paid advertisement. The conditions in the latter agreement read as follows: " 6(A) The government covenants that the company observing and performing the several functions and stipulations indicated herein shall peaceably hold and enjoy the premises, liberties and powers granted in pursuance of this agreement or any other agreement without any interruption by the government or any person rightfully claiming to act for them. Government shall at all times endeavour to bring about cordial relationship between management and labour and in case of any dispute involving harassment of management and/or any other illegal act resulting in interruption in production, take timely and positive steps to prevent such occurrences.

(B). The government agree with the Company that it will be difficult for them to carry on their activities if the conditions obtaining at the time of starting their work are materially altered and new burdens imposed on them in subsequent years. They will therefore, do their utmost to ensure that

In 1958 itself these was controversy regarding these clauses, and the CPI Secretariat and the Party state committee seem to have assessed this issue and concluded that there were some lapses in the agreement. These controversial clauses seem to have been used by the management in their negotiations with the government during the long-drawn lock-out between 1985 and 1988. So, there was displeasure regarding the outcome of the 1988 negotiations to re-open the factory amongst the workers and some of the trade union leaders like Mr. A. Vasu of GROW.

---

the laws, rules and regulations relating to the company's relations with the labour, and taxes and levies on company are so administered as not to alter the conditions under which the company begins its operations."

Many from other trade unions have also privately stated during personal conversations that the 1988 settlement was a more or less a defeat for the workers.

It should be pointed out that the government did not ever undertake any comprehensive survey to assess the pollution related health hazards faced by the factory workers and the residents of the affected area. As a result, the issue of pollution induced diseases suffered by the factory workers and residents of the area, was never included during the discussions on the issue of compensation which were held during the time of the company's *final closure in 2001*. If the government wanted to, they could have insisted

on the factory paying compensation to its citizens.

It has been found that on many occasions, various arms of the government such as the Rajya Sabha petitions Committee, of 1986, Estimate Committee of 1977, etc had conducted enquiries about the pollution issue, and submitted reports and recommendations. However, neither did the management adhere to these recommendations, nor did the government attempt to enforce adherence. For example, in 1968 there was a strong public protest against the excessive air pollution caused by the Carbon disulphide plant in the factory. Following the protest, an Expert committee was appointed to

look into the matter and make recommendations for ensuring pollution control. However, 4 years later in 1972, it is found that another committee was formed to review the status of implementation of the recommendations of the earlier committee. By 1973-74, the people lost their patience with such committees and recommendations, and the lack of follow-up from the government's side, and they broke the Elamaram bund in 1974 (See details on P -). This forced the government to arrive at the Rama Nilayam Agreement of 1974, which was then considered as a final agreement on the pollution issue. ( Even during the Emergency Period, the recommendations of the Rama Nilayam Agreement of 1974 which

was convened by the then powerful Home Minister K. Karunakaran, went unimplemented). Finally the Elamaram bund was broken once again by a mass action in 1979, to once again remind the government and the management of the lapses on their part. Therefore, it was only the constant struggle by the people that created a situation whereby the government and the management were forced to take some action.

Whenever recommendations were implemented by the management, it was done in a very half-heated and careless manner. For example, after frequent protests forced the management to lay the pipeline to Chungapally, breaks and leaks in the pipeline let the effluents out, thereby contaminating the land, ponds and wells in the area. The attitude of the management at this point was that effluent treatment was no longer necessary as they were being discharged 7.4 km downstream at Chungapally where in any case the river water is saline during the summer. However the absence of the regulator cum bridge at Chungapally which was supposed to have been built when the pipeline was laid, led to the upstream movement of the effluents from Chungapally.

In effect, the conditions of the Rama Nilayam Agreement too had been violated.

The PCB is an institution within the government to address issues related to pollution. Set up in 1974 under the Water (Prevention and Control of Pollution) Act of 1974, the KSPCB's functioning in relation to the Grasim Pollution issue is yet another example of the people paying the cost for the failure of a government institution. As per the Water Act of 1974, all factories had to seek consent from the KSPCB, every year, before discharging effluents into any water body. It is found that this yearly consent was given by the Board even when the conditions attached to this consent was ignored by the management. In one instance,



on 17.5.1980, the Water Appellate Authority, while setting aside the KSPCB'S notice in lieu of consent, said the following - " § " . Hence we find that between 1975 and 1982, the management had evaded almost all the conditions laid down by the Board, and the Board had not taken any action against the management. On rare occasions, when the Board initiated action against the company, the government and KSPCB realised that the company was capable of evading action by making use of the loopholes in the law.

In this context, it is important to discuss the issue of 'legal samples'. As per the law, if the KSPCB has to take samples from

effluents discharged by the factory, it has to inform the company in advance by serving a notice to this effect and the sample has to be collected in the presence of the company representatives. Only then will the sample be considered as a 'legal sample'. Since the company was always given prior notice about the visit of the KSPCB Officials, they were able to make temporary reductions in pollution levels. This was achieved by temporarily reducing the volume of production, by diluting the effluents with plenty of water, or by adding some chemicals like lime. So in effect, the concept of legal sample was self-defeating. Even though this issue was taken up during the visit of the Rajya Sabha

Petitions Committee, this loophole has not yet been rectified.

Though the company was not fulfilling the conditions laid down by KSPCB ever since it was set up in 1974, the latter continued to give yearly sanction to the company to discharge its effluents into the river. In 1980, the Water Appellate Authority pulled up the KSPCB and set aside the above mentioned yearly sanction (what is referred to as the Notice " In lieu of consent"), The Authority in its judgement made in May 1980, said "that the liberal and ineffective, attitude taken by the Board while discharging its statutory functions and responsibility, must have prompted the appellant to be

very unmindful of even the penal provisions of the Act, but it was to be remembered that they were playing with human life in a vast area covered by the Chaliyar river basin. The entire locality was being affected due to the careless discharge of the polluted effluent from the factory." 10

It was only after a Conference convened by the Chief Minister on 11.2.1982, following a controversy around the breaking of the pipeline to Chungapally, that the company agreed to augment the effluent treatment system. When the KSPCB examined the system after augmentation, it found that even the

---

<sup>10</sup> 89<sup>th</sup> Rajya Sabha Petitions Committee Report, 1996, p.4.

new system was inadequate in treating the total effluents that were generated. However, in view of the improvements made by the company, the consent to continue discharging effluents into the river was given to the Board.

From 1983-1988, there were intermittent lay off's and also a 3 year lockout from 1985 onwards. So during this period, pollution was not such a serious problem. But after the factory re-opened in 1988, after prolonged negotiation, pollution control was almost a non-issue.

Meanwhile, studies from across the world revealed that effluents from pulp mills contained highly

toxic heavy metals, as well as organochlorines such as dioxins and furans. Neither did the KSPCB attempt to assess the pollution from the factory in this light, nor were they technically equipped to do so. For instance organochlorines were never mentioned, within the KSPCB's stipulated list of upper limits, and hence its measure was not tested. It was only in 1997, that the Sengupta Committee directed the KSPCB to set an upper limit to the presence of organochlorines in the effluent.

While reviewing the functioning of the government and the PCB in the light of the Grasim experience, we cannot help but ask- what are these institutions for? For whom do they

function? When the government chose to allocate its forest resources in favour of the Birlas, did it consider the other less powerful stakeholders? When it justified the above in the name of employment to 3000 people, did the government care to find out the numbers who lost their livelihoods in this process, let alone rehabilitating them?

So, then what is the function of the state? Who is the protector of the fundamental rights of the subsistence communities?

The PCB also presents an equally grim picture. Can they be complacent by merely prescribing a few 'limits' for the presence of toxic elements,

and not take any action against the violation of even these few standards? We need to note here that it was not the PCB, but an independent study by the Calicut University, which detected high levels of mercury in the effluents<sup>11</sup>. The PCB chose to believe the management who denied the presence of mercury in the effluents they released. Until the Sengupta Committee in 1997, directed the PCB to fix an upper limit to the presence of organochlorines (which are known carcinogens) in the effluent, they had not done so.

Let us understand that these institutions have been created with

---

<sup>11</sup> A study conducted by Dr. Souriar and Dr. Madhavankutty, from the Dept of Chemistry, Calicut University, revealed that during 1979-81, as against the permissible limit of 0.002 ppm Chaliyar river water contained 2.81 ppm of mercury in it.



public money, to play the critical role of a watchdog, in order to protect the interests of all members of society, be they organised or unorganised, powerful or powerless. How does the PCB explain the undue delay in initiating action against the company management for having violated almost all major pollution control norms? A delay that took its toll on human lives and the life of the river?

Though the Grasim story is a telling example of repeated violations of laws and agreements, it is not just that. Pollution is not just about some limits and standards. We need to understand that pollution

is an encroachment into the  
fundamental right to life.

The struggle to protect their river

While looking at the history of environmental movements in Kerala, the struggle against Grasim is perhaps the first instance of people organising themselves to fight against the pollution caused by a factory. It is relevant to note that this struggle, which dates back from 1962 onwards, began even before the publication of 'Silent Spring' by Rachel Carson<sup>12</sup>

The struggle which began in 1962 when the factory went on stream, has not ended with the winding up of the factory in 2001. The damaged and

---

<sup>12</sup> <sup>12</sup> Rachel Carson, an American environmental Scientist, brought out her pioneering work titled 'Silent Spring' in 1964. This classic became a source of inspiration for the modern environmental movement in the West. This book contains a detailed critique of the use of toxic chemicals in the form of pesticides

polluted river, and a disease ridden society are struggling to come back to life. So though the factory has wound up, the struggle against pollution will have to continue.

Chaliyar river was not just a source of water for drinking and bathing, it was not just source of fish and 'kaka' which formed a substantial portion of people's diet, especially that of the poor; neither was it just a travel route for people and commodities It was all of this, and much more. It gave life and rhythm to the folksongs of the area, and provided rich, living background to the folklores and myth of the one.

When the Government entered into an agreement with the Birlas in 1958, the people of Mavoor and Vazakkad had no idea that the factory was going to be located close to their homes. In those days, there was not a single road to Mavoor. People had to take country boats from Vazhakkd to reach Mavoor which lay across the Chaliyar. It was towards the end of 1958 that the first meeting to discuss the coming of the factory and the possibilities of locating land for the same, was held at the Aided School at Mavoor. This meeting was organised by Sri. A. Balagopalan, Member of the Madras Legislative Assembly, and Sri Chatunni Master who later went on to become MLA and MP.

At this meeting, it was impressed upon the people that development was going to be ushered into the area and with the coming of the factory, daily wage workers of the area would soon earn monthly salaries. It was decided at this meeting, that the people of Mavoor would give away 200 acres of land to the company @ Re. 1 per cent (Rs. 100 per acre). Fenced and protected by guards, this 200-acre plot housed a mammoth complex, which was the result of the sweat and toil of hundreds of workers. This complex was frequented by engineers (both Indian and foreign), and by the top brasses of the Birlas who would make aerial observations from helicopters. The local people viewed all of this with a sense of awe and bewilderment

looking forward to the employment that would be generated and also to all the good things that development was supposed to bring.

One the day in 1962, the factory began operations. After the sound of the sirens, what came out was black smoke, and foul smelling effluents, which resembled a thick, viscous, brown soup. This polluted the entire area and the river Chaliyar. Within a few days, the people of the area collected together and went to the factory protested and declared that their river could not be polluted. If the company's function was going to cause pollution, then they did not want such a company, they said. One of the first slogans raised was " We

don't want this Birla Company which pollutes drinking water" ('Kudikunna Vellam Kulumalakiya Birla Company, Vende Venda'). What followed thereafter was a series of struggles and protests, of differing intensity. It is to be noted that the initial years of the struggle, was marked by more of spontaneous protests/responses to the pollution in the river. As years passed, and as the problem of pollution continued unabated, these spontaneous protests consolidated into Chaliyar Defence Committee, Chaliyar Jala-Vayu Samaraskhna Samiti etc. Those who were involved in the initial phase never thought that it would be such a long-drawn affair. To them the problem was obvious, and so they



thought that the government and the management would understand it, and rectify it. However, by 1965, they realised that the problem was not so simple and that too many vested interests were involved

What we can derive from the Resolution passed at a meeting held at Krishnaprabha Auditorium, Faroke, on 2.5.1965 is that much before 1965 itself (Ref), a committee by the name of Chaliyar Defence Committee had been in existence. This committee seemed to have had many rounds of discussions with the government and the management, and they had been given assurances by both the government and the management (However, over time they realised

that the assurances given by the government and management representatives at various meetings were only of face-value). The above mentioned resolution also indicates that by 1965 itself, people had begun to experience the intensity of pollution. The resolution reads as "... from time immemorial, people who have lived by the side of this river, have used the river water for drinking and bathing, and the livelihoods of thousands of people have depended on this river. This river is now unfit for any use, as it is polluted by toxic effluents discharged into the river by the Gwalior Rayons factory established at Mavoor." As a result, over a lakh of people who live by the riverside, are experiencing,

undescribable, difficulties, as they are not getting pure water for drinking and bathing. Over and above, thousands of people who are taking care of their families by fishing and 'Kakka' collection, are now losing their livelihoods. They are helpless and moving towards perpetual hunger".

Many of those whose livelihoods were reported to have been endangered by the factory-induced pollution in 1965, are not found in later references. These include the small merchants who sold, various commodities including grocery items in boats, people who transported wood and other material along the river, people in the boat-making profession etc. This may be due to the fact that

these groups of people may have migrated, or given up their professions.

Apart from humans, pollution took its toll on fish and other organisms in the river too. In 1965 itself, there were reports of cattle dying after they drank water from the river.

The above mentioned meeting on 2.5.65 was attended by representatives of Mavoor and Vazakkad panchayat, Chaliyar Defence Committee members and the STU representatives. At this meeting a resolution was passed which read as follows, " We hereby warn the government and the company, that if

there is a further delay in finding a permanent solution to this problem which has affected the livelihoods, health and property of lakhs of people, it will create long-lasting and dangerous consequences".

During the Assembly election of 1966, it was not the coming of the factory, but the pollution issue, which was the main issue. Following the election, in 1968, due to the pressure from the MLA'S and the Chaliyar Defence Committee, a Committee was instituted by the government to find a solution to the pollution problem (Bhairavan Committee). After four long years, in 1972, another Committee was formed to review the status of implementation

of the recommendations made by Bhairavan Committees. This marked the beginning of a series of Committees, Reviews, Recommendations.. but the pollution continued. Each of these committees were set up to study the pollution problem, Interestingly, all of them have been instituted following a strong public protest. Consequently these committees and their recommendations were used to pacify the protestors than to control the pollution .

The years between 1965 to 1974, when the Rama Nilayam Agreement was signed, witnessed regular struggle and the Elamaram bund was at the focus of the anti-pollution struggle.

From the very beginning of the factory, taking the effluents to the sea by a pipeline and discharging it there was portrayed as a so-called permanent solution to the problem of water pollution. In 1962-63 itself the management had started giving propaganda that this was the solution, and at all future negotiation meetings with the protestors, this was projected and discussed. Though the management was aware of the fact that it was not practical to lay a pipeline for 26-28 kms to the sea, it used to repeatedly state this in order to pacify the agitating public<sup>13</sup>. It was this promise of a pipeline, which allowed

---

<sup>13</sup> The management's double standards became clear in 1996 when the Water Appellate Authority asked the company to lay the proposed pipeline to the sea, and the company refused to do so saying it was uneconomical

the company to function between 1962 to 1972, without installing even a lagoon, (aerobic and anaerobic) or siltation tank. It seems that the Chaliyar Defence Committee and later the JVSS sincerely believed the viability of the proposal for a pipeline. For instance, the earlier - mentioned resolution, of 2.5.65 discusses this issue as follows- "So this problem will be solved only by taking the effluents to the sea by a pipeline, instead of discharging it into the river<sup>14</sup>". We need to view the acceptance by the JVSS of the proposal to lay the pipeline up to Chungappally during the Rama Nilayam

---

<sup>14</sup> <sup>14</sup> Interestingly we see similar demands voiced as late as 11.3.1997 by Mavoor Grasim Pouravakasha Samrakshana Samiti led by Sri. K.A. Rehman and then MLA Sri E.T. Mohammed Basheer, who later went on to become Education Minister of Kerala State.



negotiations in 1974 against this background. The laying of the pipelines up to Chungappally was considered as the first step towards extending it to the sea.

By late 1970's, organisations such as SPEC, KSSP etc began to actively involve themselves in the anti-pollution struggle, and these groups conducted a few studies on issues related to pollution. During 1980-85, when the effluents began to be taken to Chungappally, and when the KSPCB in response to strong peoples agitations, tightened its monitoring operations, pollution was marginally reduced. (This was also the period when the factory was intermittently laid-off due to labour strikes). So

the anti-pollution campaigners centred around Vazakkad became less active. This marginal reduction in pollution was also brought about by a reduction in the total production of the factory. This in turn created lesser number of working days for the daily wage labourers, which led to further labour strikes.

During the same period, the main problem encountered by the people was the constant breaking and leaking of the pipes to Chungappally, and there were sporadic protests. However, in 1983, air pollution caused by the functioning of the Sulphuric acid plant within the factory, led to another series of protests. However as the factory laid-off for short

periods during 1983 and 1984, the impact of pollution was less felt. During 1985-1988, there was a 3 year lock-out following a labour strike, and it was only after conceding to almost all the demands of the management that the company re-opened on November 10th, 1988. During this lockout, 13 factory employees committed suicide. Though the people of the area were struggling to deal with pollution they were moved by the difficulties faced by the factory employees and their families during the 3 year lock-out, and they were found to involve themselves at times in the workers, struggle to re-open the factory.

Though the labour strike was the immediate reason for the 1985-1988 lockout, both the management and the trade unions knew that the real reason was the anti-pollution agitation. As a result, after the factory re-opened in 1988, the trade unions were antagonistic to all anti-pollution protests. The managements stance was that they were ready to shut down the factory any day, and that they were running it inspite of the raw material shortage only at the insistence of the government and the employees.

After 1988 different groups which involved themselves in the struggle focussed their attention on the heavy raw material subsidy given to the company, as well as the disturbing

trend in the morbidity pattern of the affected area. These groups and the local people became painfully aware of the fact that some of the trends predicted by the study conducted by doctors of Calicut Medical College were slowly coming true<sup>15</sup>. Yet another medical survey conducted by the District Medical Officer, Kozhikode in the panchayats of Mavoor, Peruvayal, Cheruvannoor, Beypore, Chemancheri, Ramanattukara, Faroke and Olavanna found that cancer and other respiratory diseases were on the higher side in these

---

<sup>15</sup> Disturbed by the growing incidence of cancer in the pollution affected areas, Vazakkad panchayat under the leadership of the their President Sri. K.A. Rehman conducted a cancer survey in the area. The Survey revealed that during the period 1990-1994, 213 people died of cancer in Vazakkad panchayat alone. During the survey they located at least 79 people who were undergoing treatment for cancer, 176 people with Tb, 56 heart patients, 117 ulcer patients and 134 asthma patients in the panchayat.

panchayats. The following table gives details of the same.

*Dt. medical officer's report*

<i>Place</i>	<i>Population</i>	<i>Death Rate (Two Years)</i>	<i>Cancer Death</i>	<i>Respiratory Disease</i>
<i>Mavoor</i>	<i>26144</i>	<i>4.2/1000</i>	<i>20%</i>	<i>12%</i>
<i>Peruvayil</i>	<i>53190</i>	<i>3.4</i>	<i>12%</i>	<i>19%</i>
<i>Cheruvannur</i>	<i>43785</i>	<i>4.2</i>	<i>12%</i>	<i>12%</i>
<i>Beppur</i>	<i>56496</i>	<i>4.4</i>	<i>12%</i>	<i>12%</i>
<i>Chemachery</i>	<i>32652</i>	<i>4.0</i>	<i>9%</i>	<i>3%</i>
<i>Ramanattukara</i>	<i>26845</i>	<i>8</i>	<i>12%</i>	<i>19%</i>
<i>Faroke</i>	<i>46825</i>	<i>2</i>	<i>3%</i>	<i>18%</i>
<i>Olavanna</i>	<i>45733</i>	<i>4</i>	<i>11%</i>	<i>31%</i>

A debate was started regarding the possible ways of controlling pollution. One argument was that pollution could be controlled by the use of latest technologies, and as these were available, they should be used to solve the problem. The other argument was that the machinery and technology used by the factory dated back to the early 1960's, and it was not possible to significantly alter it to the extent of eliminating pollution. Even if it was possible,

the management would not be agreeable due to the economic implications of the same it, they argued. The management and the trade union argued that all necessary pollution control measures had been taken and that the level of effluents conformed to the KSPCB standards.

From the findings of the Calicut University Study, and from incident reported from other parts of the world, the anti-pollution activists were suspecting that the mercury and organochlorine levels in the effluent were much higher than the permissible limits. As the PCB was ill-equipped to test the presence of these toxic components, their increased levels had gone unnoticed so far. They were



thus demanding for more stringent pollution control measures to eliminate the presence of these extremely dangerous elements in the water. If not, they argued that the company should be shut down till these measures were implemented.

Even when the 1994 study by the National Institute of Oceanography<sup>16</sup>, revealed that the Chaliyar river was dying due to pollution, the management continued to argue that the pollution was "within the limits" prescribed by the KSPCB. However the death of 3 workers on June 23<sup>rd</sup> 1995 by inhaling noxious gases while they were repairing faulty valves on the pipeline, revealed the

---

<sup>16</sup> for details page 32

ineffectiveness of the pollution control measures undertaken by the company so far. On December 1997, the frustrated people under the leadership of Sri. K.A. Rehman organised a major protest rally, and demanded the closure of the factory. This was for the first time that the demand to shutdown the factory was voiced with full strength. Though the struggle continued for some more time, it could not carry on further due to the ill health of the leader Sri. K.A. Rehman, who was also fighting cancer, and due to financial constraints. On January 11<sup>th</sup>, Sri K.A. Rehman died of cancer.

Following the death of Sri K.A. Rehman, at the State Level Convention

of Peoples Movements fighting against pollution at Calicut, it was decided to launch a final struggle to close down the factory. According to the decision taken at the convention, an indefinite relay fast was launched in front of the factory on January 26<sup>th</sup> 1999.

On May 26<sup>th</sup> 1999, production processes came to a halt in the company after they issued a notice to the government for closing down the factory. Even though the government rejected this notice, following negotiations with the government and trade unions, the company closed down forever in 2001.

Before the factory closed down, an attempt was made to sell off the factory to a newly registered company, Moonlight Chemfab Limited which was based at Indore. The Birlas made this move in order to evade payment of compensation to the workers as well as to the victims of factory-induced pollution. However due to the timely intervention of the trade unions, the government and the Chaliyar Action Council, this did not take place. This forced the Birla management to discuss the issue of compensation with the government and the trade unions. Unfortunately the issue of compensation to the pollution victims was not given due consideration.

So after functioning for 38 years, when the factory closed down in 2001, the people who struggled through and through against pollution, had to change the course of their struggle. Had it not been for the continuous struggle of the people, the company would have continued evading pollution control measures, as during the 1960's. We need to understand that the common people of the Mavoor-Vazakkad area were fighting against a company which had the power and the resources to manipulate and overcome the restrictions imposed by the government and government institutions. Whatever little pollution control measures that we see in place today, with which the management has washed its hands off

taking further responsibilities with regard to pollution control, are the result of long years of struggle. Similarly, each expert committee that was appointed to look into pollution matters came up after a spell of protests.

At times, the management and the government, through false promises and assurances have cheated the people's struggle for years. For instance, the government and the KSPCB chose to ignore the fact that the company had installed an effluent treatment plant which was capable of treating only 50% of the total effluents generated by the factory.

People of the pollution affected areas were aware of the need and the importance of 'employment'; and so in most cases, they were never fully unified in their struggle against a company which was capable of generating employment. For the same reason, those who were involved in the anti-pollution struggle, were also concerned about the fate of the employees. Perhaps it was this concern which held back the struggle from really moving ahead with greater intensity. So they waited for 33 years, till December 10<sup>th</sup> 1996, before they finally declared that the factory that pollutes the air they breathe and the water they drink, should be shut down.

Sri K.A. Rehman who led the struggle from the very beginning, like many other people of the affected area, succumbed to cancer on Jan 11<sup>th</sup> 1999. Before his death, he shared his dream of seeing the Chaliyar river coming back to life. He asked whether the river would ever come back to life. He asked whether the people of the area ever be able to breathe pure air?

Although the factory has closed down, till the victims of pollution get their due compensation, the struggle will have to continue, perhaps in new ways and forms.



Conclusions: Did anybody learn anything?

The story of Grasim does not end with the shutting down of the Grasim factory. Grasim remains as a stark and sad example of how the entire bamboo forests of a state and all the pure water in a full, following river like Chaliyar, can be "lawfully" plundered in full day-light by a ruthless private corporate management, with the full consent of the government and the cooperation of the trade unions. It seems that those in the decision making process (whether they are in political parties or in the government), are yet to treat this as an serious and grave issue.

This is indicated by the government's recent plan to revive the Travancore Rayons (Trayons) factory at Perumbavoor, central Kerala, which has been running at a loss for the past 10 years. A 2025 crore rupee proposal for its revival is being studied by a High Power team headed by the Principal Secretary (Industries), Government of Kerala. It is envisaged that after the proposed modernisation, Trayons will have a pulp plant with a capacity of 90,000 tons, and a fibre division with a capacity of 70,000 tons. (It may be noted here that this by far exceeds the total capacity of the closed down, Grasim plant which had a total capacity of 72,000 tons in the

pulp division and 26,000 tons in the fibre division). This proposal also asks for 25,000 hectares of forest land for raising captive plantations.

A government which could not deal with various issues precipitated during the 38 year working history of Grasim, is now attempting to facilitate the revival of yet another pulp and rayons factory with a significantly increased production capacity, which implies an increased potential for consuming more of forest and water resources, and also creating higher levels of pollution, and resultant health hazards. We don't know which patch of remaining shola forest and grassland will be converted into eucalyptus or softwood

plantations. We don't know how many more wildlife habits will be lost in the process, who are the unfortunate subsistence communities who will have to pay the price? Who all amongst us will suffer from fatal diseases caused by pollution?

Have we learnt anything from the story of Grasim? Grasim also tells us the story of how workers and trade unions, in their hurry to ensure their salaries, perks, and bonus, seem to have consciously abandoned the larger social and ecological responsibilities. When there is a conflict between (the creation of salaried jobs for a few and subsistence livelihoods of a large

number of people, the priority has to be given to the latter.)

People living in Vazakkad and neighbouring areas, who have been for years inhaling the noxious and toxic gases emitted by the factory, are now battling with fatal diseases such as cancer, Through their suffering's, they remind the larger society, that their right to live in unpolluted environments is the most fundamental right.

It needs to be noted that for 38 years, the people of this area continued to struggle in varying intensities. They continued their struggle despite the repeated breach of trust and violation of agreements

by the government and the management. They continued the struggle even when pollution-induced cancer claimed the lives of their co-travellers. This is not to say that the struggle was without pitfalls. They too, at different points were misled and perhaps confused by the conflicting demands for employment Vs livelihood. They too saw that some of their leaders and comrades were bought over by the management. Some others among them used this struggle as a platform to launch their political careers. But the important point is that they did not fully give in to the shrewdness and connivance of the management, to the irresponsibility of the government, or to the 'neutrality' of scientific

institutions. Hence, we cannot say that their struggle was just against one Grasim, or the pollution caused by it alone. It was a struggle to protect the right to life from being encroached in the name of development and progress.

The history of Grasim exemplifies the failure in development strategies that were centred around industries, in post-Independence India. The unsustainable use of natural resources as well as problems of pollution are the inevitable consequences of such a pattern of industrial development. Such a development policy does not account for the loss of livelihoods suffered by the people of subsistence

economies, be it the fish worker or the tribal.

When we let polluted waters intrude into the complex web of life which links the seemingly unconnected bamboo forests, elephants, tribals, drinking water, the river, the tide which brings the saline water and the fish that migrate with the tide to lay their eggs, the responsibility and commitment of institutions (be it the Pollution Control Board, or the government or the management) ends with ensuring that the toxic elements are below the 'prescribed upper limit'. Being a part of the above mentioned web of life, there can be no upper limits to human responsibility. Perhaps, we will be



reminded of this responsibility only when the toxic chemicals that we release into our environment, (measured and unmeasured, within and outside 'prescribed limits') through the process of bio-accumulation, begin to alter our own genetic codes. Worse still, mercury pollution may even obliterate our memories of right and wrong.

In this regard, another issue that is to be addressed is the commitment and responsibility of our scientific community and institutions. Who should take up the responsibility of finding out whether pollution leads to cancer and other fatal diseases? Anyway, we cannot expect the cancer patient to take up that

responsibility too. Though it was noted at the Regional Cancer Centre (R.C.C) at Trivandrum that substantial number of patients from Vazakkad were frequenting R.C.C., they have not bothered to look into the matter seriously.

It was under the leadership of the then Vazakkad Panchayat President Sri. K.A. Rehman that the first cancer survey was conducted in Vazakkad in 1994. The results of the survey was both shocking and unbelievable (For details see-?). Following this, a survey was conducted by the District Medical Officer, and this survey pointed out that the incidence of cancer was higher in the pollution affected

areas. But the next round of survey conducted by the R.C.C. was more to disprove the findings of the earlier surveys, than to find out the reasons for the increased cancer rate in these areas. The R.C.C. survey stated that there was no increased incidence of cancer in the Vazakkad area and that the existing cancer patients had developed the disease due to habits such as tobacco, chewing and smoking. Though one would like to believe the R.C.C. study findings, the increasing number of people falling prey to cancer calls for a re-valuation of the R.C.C. findings. Though a second study was conducted by R.C.C. under the leadership of the R.C.C. Director, Dr. Krishnan Nair, the findings of this study are yet to be

disclosed. So, what we are left is the first R.C.C. Report which has contradicted the findings of the earlier surveys conducted by the Vazakkad panchayat and the District Medical Officer.

In a state where the Right to Information has been legally recognised, when people of a particular area are suffering serious health problems, their the right to be informed about the cause of their disease is as important as the right to life. Moving one step further, if a disease like cancer is spreading so fast in one area, then don't we need to find the reasons for the same? If it is the side-effects of somebody's insatiable need for profit that has

led to the recurrence of these diseases, then don't we need to put an end to such profit-making activities ? Doesn't the suffering endured so far, need to be compensated at least?

Will the history of Grasim help us in giving honest answers to these questions?

Though the 1958 agreement between the government of Kerala and the Birlas was a very costly blunder, marked by irresponsibility, the years to follow had provided opportunities to redeem it. Even since the factory began functioning in 1962, there has been no dearth of controversies regarding regarding the pollution

caused by the factory, the raw materials supplied to the company at shamefully subsidised prices etc. But the government did not pay any heed. Not only did they continue to renew the same old 1958 agreement, but they gave the company increased access to its forest resources (read as raw materials) through Supplementary Agreements.

Throughout the working history of the factory, the resource allocation in favour of the Birlas, and the government's silence towards pollution control issues was explained in the name of employment given to 3000 people. Our trade unions also had the opportunity to insist upon a "cleaner" production process, but they chose not to do so.

The Grasim pollution controversy provided an opportunity for the trade unions and the people's movement to strike and strive together for a cleaner production process. We would then have been able to send a message to the world outside that we will welcome only those enterprises which ensure the sustainability of the resource used, and the quality of the environment, and place these goals above that of profit-making. Irrespective of the fact that both the groups were at the receiving end of the Birla management's shrewd manipulations, they could not launch a common struggle against the Company.

At yet another level, the question that has to be asked is about the end-product of this production process. How critical is rayon in ensuring human subsistence? Conventional economics measures the country's economic development in terms of the tons of pulp and rayon that is produced, but fails to account for the cost incurred in terms of pollution and ecological damage, and the loss of livelihoods.

Rayon suitings may be seen as a must while attending a party hosted by the rich, but it is nowhere on the common mans list of necessities. Do we need to pledge precious forest resources and the Chaliyar river to produce this commodity? Can



employment generation for a few people, for a short period of time, justify irreversible destruction of otherwise long lasting sources of wealth, be it the forest or aquatic ecosystems?

During the last 40 years, we never gave a thought to alternate ways of harnessing bamboo resources, and thereby creating employment<sup>17</sup>. The ideology that ushered in the era of industrial development in the 19<sup>th</sup> and 20<sup>th</sup> century, considered roaring machines and the factory chimneys which touched the sky and emitted thick, black smoke, as visible signs

---

17 The only attempt in this regard was made by the Chaliyar Action Council, in a detailed memorandum submitted to the Industries Secretary, government of Kerala in -. In this memorandum, they have given a detailed account of the possible alternative and ecologically benign ways of using bamboo resources to create more employment than what is provided by Grasim.

of progress. This ideology is undergoing significant changes even in Europe, where it took root. However, former colonies like India are still not prepared to give up their belief in this ideology and the system and institutions that it creates. Industrial development in Europe had been fuelled by the plunder of resources which was available in plenty in its colonies. These colonies provided the resources and the market for the end-products- (today they are the dumping grounds for the industrial waste from 'developed' nations).

After Independence, when former colonies such as India adopted the same development model, the rural

areas within these countries, which were considered 'under developed', were converted into colonies for internal industrialisation. This also created a situation wherein factories and other institutions set up in the name of development, came to be unilaterally welcomed. But the experiences of the years to follow began to radically question these assumptions. The industrial exploitation of resources destroyed many ecosystems and the livelihoods of people which were dependent on these ecosystems. Moreover, since by-products generated by this industrial system led to both environmental and health problems, these industries (as we see in the case of Grasim) became

the sites of peoples criticism and protest.

Factories such as Grasim came up at a time when the government assumed regulatory functions to ensure the welfare of the people. We need to note that this was much before the coming of the WTO, and common trading system such as EEC, where the government apparently withdraws and the markets take over regulatory functions.

Factories such as Grasim became a burden for the people due to the ineffectiveness of the government and the greed of the management. Now, in the WTO era, when governments openly give up their regulatory functions

and when markets seemingly take the responsibility of everything including environmental protection and human health, it is only the continuous vigil of the people that can ensure environmental protection and human survival.

Mavoor also sends out the same message.