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Technological Change, Entrepreneurship and Bureaucratic Cooperation

This paper analyses the efforts of the Indo-Norwegian Fisheries Project (INP) to transform Indian fisheries in the period 1953 to 1972 as well as the problems and promises of bureaucratic cooperation within a development aid project. The Kerala Project, as it is commonly called, partly by design and partly by coincidence, partly by offering incentives to change and partly by being milched, succeeded in transforming a traditional fisheries industry into a modern, mechanized one, including a vast processing industry. The Indo-Norwegian Project was run jointly by Indians and Norwegians. The cooperative and not so cooperative efforts at entrepreneurship provide instructive insights into the problems inherent in inter-state promotion of economic development on the ground. The tension between the single goal experts of the donor country and the rule bound administrators of the recipient one could be reduced but never eliminated. At times it threatened the viability of the INP as the cooperating partners in the field concluded that their vital interests were incompatible. They partly represented cultures in conflict, partly conflicting roles. The main part of the paper is concerned with problems of introducing mechanized fishing boats in an area where there was no demand for such new technology, the final part discusses the issues of international relations within an aid project.¹

Negotiations in India

The INP was set up under the auspices of a three-partite agreement between India, Norway and the United Nations in October of 1952. The agreement was not very specific and must be seen as largely symbolic, catering for the needs of both Norway and India to highlight the importance of the United Nations in trying to create a more just and peaceful world order. A First Supplemental Agreement of 24 January 1953 set out four main goals for the project: 1) Increase the income of the fishermen, if possible by the mechanization of existing beach-landing craft. This was to be supplemented by the introduction of new

¹ Unfortunately and in spite of repeated requests Indian government archives were not made available for the author's study of the Kerala Project that was completed in 1986. Nor were further requests in 2000 successful. Thus the archives used are all Norwegian. These of course include bilateral correspondence, minutes of joint meetings and sundry other materials of Indian origin. The main problem of non-access concerns the uncertainty that pertains to the bases for Indian positions in the bureaucratic struggles and Indian analyses of the desirability of the approach to fisheries modernization. As for the Norwegian archives the papers of the India Foundation and the Project in India are located at the Norwegian National Archives in Oslo. The papers of the Foreign Ministry have been transferred to the National Archives up to 1960. The archival material pertaining to the India Project were still at the embassy in New Delhi in 2000.

boats and the provision of better nets. Shore installations were to include an ice plant, insulated sheds for the storage of ice, a processing plant and in addition insulated vans for fish transport. 2) The distribution of fish was to be successively taken over by cooperatives run by the fishermen. 3) The hygienic conditions in the area were to be improved by the building of a water plant and latrines and the establishment of a health center. 4) The project should in general promote a higher standard of living in the area.² The INP was to work in two villages in the then princely state of Travancore-Cochin, Neendakara and Sakhtikulangara, located just north of Quilon, the district center.³ The two villages were located on either side of an outlet from the backwater which runs along the Kerala coastline for miles, at this spot named Ashtamudi Lake. The two villages were not to be the only beneficiaries of the project. It was assumed that beach-landing conditions and the structure of the fishing industry were basically similar along most of India's eastern and western coastlines. Thus the INP results could be widely copied. The contracting parties agreed on a pilot project, and given the poverty and backwardness of the state only the pilot function could justify heavy investments in such a small area.

The overarching goal was a fundamental transformation of Indian fishing villages in terms of higher incomes for ordinary fishermen and a different distribution of income to favor producer rather than middleman. The health measures and the overarching goal of a general improvement of the standard of living need not concern us in this context as they were not integral parts of the pilot scheme, but were primarily put in to satisfy the domestic Norwegian audience.

The Norwegian parliament, the Storting, in the early summer of 1952 set up the Foundation for Aid to Underdeveloped Countries. Three members of the Board of the Foundation traveled to India in October of 1952 to find a suitable project.⁴ They were the chairman, the renowned professor of oceanography Harald Ulrik Sverdrup, professor of medicine Hans Jacob Ustvedt, later to become head of the Norwegian Broadcasting Corporation, and the engineer Diderich H. Lund who had managed postwar reconstruction in North Norway. Having attended a Gandhi conference in India in 1949 he was the only one with any personal knowledge of the subcontinent. Because of his principled approach to cooperation

² The agreement is printed in P. Sandven., *The Indo-Norwegian Project in Kerala*. Oslo 1959, pp. 137-141.

³ Sakhtikulangara was predominantly Roman Catholic while Neendakara with the subdivision Puthentura was predominantly Hindu. Much has been made of the greater success of mechanized fishing on the part of the Catholics during the project period. In the longer run, see in particular Klausen 1968. The differences do not appear to have as important in the longer run, and will not be discussed here. The Norwegian negotiators initially wanted to concentrate exclusively on the Hindus but accepted the Catholic village after considerable Indian pressure. The population of the state was relatively evenly divided between Hindus, Muslims and Christians, the latter were mainly Roman Catholics, though there was also a fair number of Syrian Christians.

⁴ The Board members were eminent Norwegians from various walks of life. They were all presumed to have been untainted by the German occupation. At least one eminent candidate was disqualified for not being sufficiently untainted.

he was slated to be the first director of the Indo-Norwegian Project. Neither the Foreign Ministry nor the three Board members had much time for consultations with other donor nations engaged in India.⁵

Nor did the Board members spend much time reading about India, Indian economic development or the most recent attempts to promote development by means of the First Five Year Plan and the beginnings of foreign aid. The modest planning efforts aimed primarily at clarifying what kinds of projects of cooperation would be consistent with reaching the poor in the villages, and identifying what kinds of projects were likely to involve so many unknowns and so many obvious obstacles that they were unlikely to succeed.

Planning for a project proceeded by a process of elimination and rested on the premise that two fundamental requirements must be met. The poor in some fashion had to be identifiable as the target group, and the project had to be clearly visible from Norway. Both preconditions were based on the perceived necessity to educate the Norwegian public to appreciate the importance of aid and secure continued support for the effort. Support for state sector manufacturing industry was thus ruled out because Norwegian aid would be too modest in relation to such large enterprises. Support for private sector manufacturing was ruled out because, as the three stated in early September, “[...] that would not be in accordance with the ideas behind the establishment of the Foundation”. The Board was generally skeptical of private enterprise, a bias broadly though not uniformly shared by Norwegian foreign aid supporters.⁶ Thus the planners were left with food production as the obvious choice.⁷ They then proceeded to eliminate fisheries since they assumed that the distribution, preservation and processing of fish under tropical conditions would pose major problems that Norwegians were not trained to handle. The project furthermore was aiming specifically at the poorer part of the population, and the Committee concluded that an efficient and hygienic handling of the fish would lead to products becoming too expensive to benefit them. Finally Sverdrup, Ustvedt and Lund stated that the fact that sales were controlled by private sector fish traders was also a problem, and “[...] even if the development of cooperatives is possible, this is bound to cause so many difficulties and take so much time that the Norwegian aid should not attempt it”.⁸ As we shall see they were remarkably prescient in pointing out the likely obstacles to success in a fisheries project.

By the process of elimination the planners settled on agriculture within the framework a community development project. The Norwegians were to add new agricultural land by means of drainage or irrigation, and aim at developing a new community as farming was gradually expanded. The planners

⁵ Pharo, *Hjelp til Selvhjelp*, vol. I, Oslo 1986, pp. 69-70.

⁶ H. U. Sverdrup, H. J. Ustvedt and D. H. Lund, memorandum 04.09.52. India Foundation Archive (IFA), Box (B) 12/52-56, Folder (F) 220.

⁷ The primary producers within agriculture and fisheries were clearly not considered private enterprise.

⁸ H. U. Sverdrup, H. J. Ustvedt and D. H. Lund, memorandum 04.09.52. IFA, B 12/52-56, F 220.

assumed that Norway could provide sufficient expertise for such a project, and furthermore that Norway on its own could provide fertilizer and simple agricultural tools. The latter was not the least important for a nation still struggling with postwar balance of payments problems. Norwegian experts could also be found to support the development of small scale manufacturing and cooperatives⁹.

The proposals developed by the Committee were broadly acceptable both to the rest of the Board of the Foundation and the Ministry of Foreign Affairs. Two caveats were, however, highlighted. In consideration of their relative ignorance of the Indian economy and Indian development plans the negotiating party had to approach their task with an open mind. Secondly they must return with a project with a distinct Norwegian character. Thus the mandate for negotiations was both quite open-ended and narrowly circumscribed. We shall see that both the *sine qua non* and the room for flexibility were taken seriously.

The negotiating delegation left for India on 12 October and arrived in New Delhi nine days later after a stopover with the Food and Agricultural Organization (FAO) in Rome. Before leaving Oslo they had been informed that the Indians were unlikely to accept their proposed agricultural project. The objections were twofold. The creation of new agricultural land would primarily entail expenses in rupees, the Indians wanted aid that involved a substantial amount of foreign exchange. Furthermore they pointed out that such a project was likely to involve several administrative units and might thus cause administrative complications. Only the former argument can be taken at face value, as the Indians in other contexts were not hesitant to promote projects that would run across administrative boundaries.¹⁰

By the time the delegation arrived in New Delhi the Indian side, the various ministries that might be involved as well as the Planning Commission, had firmly decided against an agricultural project within a community development setting.¹¹ The delegation concluded that it had no choice but look at the options presented by the Government of India, as it was vital to settle on a project where “the Government of India had direct interest in its early completion”.¹² Yet whatever they settled on must be appealing to the perceived preferences of Norwegian public opinion.

After initial talks with the Planning Commission the delegation visited two possibly project areas, the Kulu Valley in the borderlands between the states of Punjab and Himachal Pradesh and the coastal areas in the middle and southern parts of the princely state of Travancore-Cochin, later to constitute the larger part of the state of Kerala. During a series of meetings with the Planning Commission, both before

⁹ Ibid.

¹⁰ Pharo 1986 I, pp. 84-86.

¹¹ The Indians were quite enthusiastic planners. The five year plans, starting in 1951, and the Planning Commission were influenced by Soviet planning but not copies of. The postwar Norwegian governments were enthusiastic planners, possibly inspired by what passed for planning in the Soviet Union but certainly not copying what the Russians did.

¹² Minutes of meeting, 02.10.52, IFA, unmarked box, F Board meetings 1952.

and after the field trips, the delegation proceeded to eliminate a number of proposals that were clearly high on the list of Indian priorities, such as a newsprint plant and oceanographic research and explorations. Lund, Sverdrup and Ustvedt were growing increasingly depressed and communications to Oslo took on a tone of desperation. On 24 October Ustvedt wrote home:

As expected, it looks bad, very bad [...] they have offered us mountain districts in Himachal Pradesh, with unbelievably primitive conditions, with forests and mountains and thus presumably suited for Norwegians, - and the wettest area of the world in Assam – among primitive tribes, both totally unacceptable in my opinion. Uttar Pradesh [...] a possibility, Travancore also.¹³

Lund agreed a few days later, finding Himachal Pradesh of no interest: “I really don’t know what we would do there, road-building in sandy hills is not something to bring home.” Neither did he care much for Assam, it was in a remote area and “is not typically Indian, the people are half Mongolian”. But in this letter of 26 October he finally saw a glimmer of light at the end of the tunnel. They had had their first meeting regarding Travancore, and had “sorted out tasks that after close consideration I find look very promising”.¹⁴

The fisheries project that was transformed to suit Norwegian preferences was one the Travancore-Cochin government had proposed to the Planning Commission. That project had an upper limit of NOK 3 million and the funding was to be spread thinly along the state coastline. The state government wanted Norwegian funding for an ice plant and a fishmeal plant. It was furthermore requested that a small number of motorized fishing boats be provided by Norway. The proposal also included measures for a general raising of living standards, particularly an improved diet and medical services. The Travancore proposal could thus be seen to include elements of a community development approach.

The Travancore project was not based on any analysis of whether the coastal fisheries would provide an adequate base for modernization either in terms of the potential resource base or market demand. The Planning Commission doubted that the local demand for fresh fish was sufficient to sustain the modernization efforts, and proposed that either the feasibility for transporting the catch to Bombay be investigated, or alternatively that the project should be relocated to Ratnagiri near Bombay where there was sufficient demand for fresh fish to sustain mechanized fishing.¹⁵ The Planning Commission was concerned to link more efficient fisheries to the modern sector in urban areas where an existing market of relatively prosperous customers were likely to provide sufficient income levels for the fishermen to cover increased fixed and variable costs. An increased food supply from more efficient primary producers was

¹³ Archives of Norwegian Ministry of Foreign Affairs (ANMFA), to K. Evang, 01.11.52, attached excerpts from letters from H. J. Ustvedt, 24.10.52, and D. H. Lund, 26.10.52.S

¹⁴ Ibid.

¹⁵ Minutes, 6th meeting, 29.10.52, IFA, unmarked box, F Board meetings 1952.

also seen to be a precondition for the success of the ambitious industrialization plans that were to be launched within the framework of the Indian five year plans.¹⁶

The Travancore proposal was hardly designed to promote fundamental changes within the fisheries industry. Rather it was a jumble of loosely connected projects that were to be spread thinly along the Malabar coast. The delegation made it clear to the Indians that basing the project on an urban market would be incompatible with Norwegian goals.¹⁷ The Planning Commission accepted that position and came to greet with enthusiasm the Norwegian alternative as it was developed during the negotiations in New Delhi.

Crucial to the Norwegian concept, which it was assumed would make it possible to combine modernization and technological transformation with community development, was the idea of concentrating the stages of fisheries development within the boundaries of a limited geographical area to provide a model for fisheries development that could be generally applied in India. The Norwegians assumed that conditions were fundamentally alike both in terms of existing technology, ownership structure, preservation, processing and market conditions. Furthermore they were convinced, based on their interpretation of the Norwegian experience, that fisheries transformation must be gradual from non-mechanized beach-landing craft, to mechanized beach-landing craft to offshore fishing and big trawlers equipped for week-long fishing expeditions. Only by starting with relatively small-scale efforts would the fishermen acquire “[...] the attitudes and the insight that would be required to engage in real ocean fisheries”.¹⁸ By developing such a concept the delegation convinced the recipients in New Delhi and Trivandrum that relatively large investments in two small and insignificant villages on the Malabar coast were justified. The effort was to be made in small localities, but the ultimate prize was the entire Indian fisheries industry. Thus in the longer run urban areas and the modern sector would benefit more by the Norwegian approach than by the one proposed by the Planning Commission.

During the brief visit to Travancore–Cochin the delegation studied the existing fleet structure with the aid of a Norwegian fisheries expert temporarily on loan from the FAO.¹⁹ They jointly concluded that the existing fisheries had been developed to a point of perfection given the available technology. The introduction of mechanized fishing was vital to increase catches, because only such a transformation would enable the boats to reach further out from the shore and to carry more efficient fisheries equipment.

¹⁶ Pharo 1986 I, p. 89. F. R. Frankel, *India's Political Economy, 1947-1977*, Princeton 1978, chapter 4, particularly pp. 117-120.

¹⁷ Minutes of meeting, 02.10.52, IFA, unmarked box, F Board meetings 1952; Minutes, 6th meeting, 29.10.52, IFA, unmarked box, F Board meetings 1952; K. Lyche to ANMFA, 23.09.52, IFA, B 12/52-56, F 220.

¹⁸ Delegation report 24.11.52, IFA, B 15/52-56, F 270/52; Minutes, 6th meeting, 29.10.52, IFA, unmarked box, F Board meetings 1952.

¹⁹ Magnar O. Kristensen was later hired by the INP as the first chief fisheries officer. He died within half a year, and the project then remained without academic fisheries expertise for another three years. One of three schooners brought to Cochin in 1955 was named M.O. Kristensen.

They were optimistic as to the possibility of a successful mechanization of the existing beach landing craft, but also contemplated the introduction of new prototypes to be used from the beach. They were concerned that innovation should build as closely as possible on the existing structures.²⁰

The proposal showed the imprint of the individual and professional interests of Lund, Sverdrup and Ustvedt. Lund, the engineer, was above all concerned with the infrastructure on land, the ice plant, the boat building yard and the water works that were to provide the villages and Quilon with good drinking water. Possibly his concern with the infrastructure also reflected the fact that he had previously expressed his concern that the preservation of fish under tropical conditions would be extremely difficult. Sverdrup, the oceanographer, was mainly concerned with the actual fisheries operations and marine research, while Ustvedt the professor of medicine, concerned himself with health conditions, preventive medicine and the health center and hospital that together with the water supply scheme constituted the core of the community development approach.²¹

The agreement was the outcome of brief, intense and complicated negotiations between three main parties, the Board delegation from the India Foundation, the Government of India mainly represented by key members of the Planning Commission and the state government of Travancore-Cochin. The United Nations by an implicit Indo-Norwegian understanding were left outside the loop, to the consternation of both headquarters and the New Delhi representatives. All three negotiating partners considered that they had made a good deal. The GOI appears to have become convinced that the project had great potential to benefit India's fisheries in general. Their expenses would be minimal, only local costs, and the gains in terms of an increased food supply were potentially great. Trivandrum received funding for an improved version of a project that the Planning Commission had looked upon with great skepticism and had not been likely to support. The Foundation had gained support for its desire to reach the poor by means of technological and organizational change combined with community development. During the negotiating process the delegation had persuaded itself that the non-negotiable goals could be achieved even within the fisheries sector. The pilot project approach was commended by other donors and aid administrators in New Delhi, among them American ambassador Chester Bowles, an early aid enthusiast, and the local representative of the US Technical Cooperation Administration, Clifford Wilson.²²

The India Foundation had committed itself to a major attempt at transforming Indian fisheries. The transformation was to increase catches and incomes for the fishermen and to increase the food supply and improve the diet for poor consumers. The possibility that in the short run transformation and poverty alleviation might not be compatible was never considered. This was partly a consequence of the fact that

²⁰ Ibid.

²¹ Pharo 1986 I, pp. 91-94.

²² Delegation to NMFA, 14.11.52, IFA, B 26/56-57, F 240.

the Norwegian negotiators were fairly ignorant of the structure of Indian fisheries, of marketing conditions, demand structure and consumption patterns. As enthusiasm grew with the unfolding of Norwegian plans, the vistas opened up by the pilot project scheme squeezed out the initial skepticism of both the Norwegian delegation and the Planning Commission. The strong commitment and the great vistas opened up, on the other hand also made the Indo-Norwegian Project one of great prestige for all three parties. They would all be loath to give it up or to change its basic character. Its future history would bear the mark of all these factors.²³

Fisheries in India

Neither during the negotiations nor during the early phases of the project did the Norwegian negotiators or the rest of the Board show any interest in the available literature on Indian fisheries development. There are no indications in the available archival material that either New Delhi or Trivandrum directed the Norwegians towards such literature, nor are there any indications that the Indian negotiators themselves showed much interest in it.²⁴ Admittedly academic studies were relatively few, though exploratory fishing and scientific investigations had been conducted both from Bombay and Madras from the latter part of the nineteenth century. Exploratory fishing from Bombay with steam trawlers after World War II was considered a failure. Generally the attempts at mapping resources and natural conditions were few and intermittent. The fishermen themselves and some of the fisheries administrators possessed considerable knowledge of fisheries resources and natural conditions in their respective areas, but this was largely limited to inshore areas because of the limited range and speed of traditional craft.²⁵

The store of knowledge was still supposed to be adequate for Indian fisheries administrators and scientists to paint a somber picture of the state of the industry. Fishermen were depicted as poor and ignorant. Because of the monsoon, the lack of fishing ports and the heavy dependence on schools of pelagic fish catches fluctuated wildly from one year to another. The quality of the fish products was generally poor and reached only a small part of the potential consumers. A considerable proportion of the annual catch was totally unsuited for human consumption. Both fishermen and consumers were seen as the victims of a stagnant industry, while fish traders were considered able to make considerable profits by means of their control of credit, distribution and sales. The fishermen were particularly dependent on them during the poor fishing seasons. The fish trading middlemen were seen to be the villains as they made

²³ See also J. Simensen, *Norsk utviklingshjelp 1, 1952-1975: Norge møter den tredje verden*, Bergen 2003, pp. 54-55.

²⁴ This is with the caveat that I was not granted access to Indian archives. Some of the Indian fisheries administrators were among the few academics who had contributed to the literature, but they were not among the key negotiators.

²⁵ Pharo, "The Indo-Norwegian Project and the Modernisation of Kerala Fisheries, 1950-1970", *The Indian National Congress and the Political Economy of India 1885-1985*, M. Shepperdson and Colin Simmons (eds.), Aldershot 1988, pp. 382-385.

considerable profits from the system but showed no interest in investing in modern technology either with regard to boats or infrastructure.²⁶

While stagnant the Indian fisheries industry was large. While statistics for this period are rather less than reliable, annual landings in the early 1950s amounted to half a million ton, pelagic fishes such as sardines, mackerel and herring were the major commercial fishes, but larger species such as tuna, bonito and shark also represented large and important resources. Shrimp constituted at times as much as one fifth of the total, making the Indian industry the second largest after that of the United States. The record 1954 catch was estimated at 152,000 tons. However, the catches were made in close inshore waters, in the backwaters and in the rice paddies where they were cultivated in the after-monsoon months. The species were quite small, frequently characterized as juvenile and the catches were made during an extremely brief season. Trawling grounds for shrimp had yet to be located and in 1952 trawlers were virtually unknown, even though successful trawler experiments had been carried out on the Malabar coast in the early 1900s. In fact at the beginning of the First Five Year Plan in 1951 there were in India only 13 mechanized fishing boats, all in the Bombay area.²⁷

The number of traditional craft was large, estimated in the early 1950s at some 75,000, 10,000 of them in Kerala. The number of fishermen was estimated at 750,000. Some 100,000 lived in present day Kerala, in 250 of India's 1200 fishing villages. The state's share of the total Indian catch was estimated at between 30 and 40 per cent. While the number of people employed in the industry was considerable – Indian fishermen with dependents probably outnumbered the entire population of Norway – the industry represented a fairly insignificant part of the Indian economy, and exports were negligible. Yet in the economy of Travancore-Cochin the export of dried and salted shrimp to South-East Asia had long traditions and played a significant role in the state economy. The value of these exports amounted to some 40 per cent of total Indian fish and shellfish exports. Thus among the fish traders there were individuals with an international outlook and network. Yet at the time of the launching of the Indo-Norwegian Fisheries Project neither domestic nor foreign investors had succeeded in creating a base for the export of either canned or deep frozen shrimp. As for the Norwegian negotiators they appear to have been aware of neither shrimp nor shrimp exports. Such knowledge on the other hand probably would have made no difference in terms constructing the Project, as promoting either export-led growth or fish trader interests would have fallen outside their mandate.²⁸

Sverdrup, Ustvedt and Lund agreed with Indian authorities that the impetus for change was not likely to come from inside the industry. Transformation required state intervention, as demonstrated by the Bombay fisheries authorities that during the interwar years had started transporting fish in motor launches

²⁶ Ibid; Pharo 1986 I, pp. 116-125.

²⁷ Pharo 1988, p. 384; Pharo 1986 I, pp. 117-118.

²⁸ Pharo 1988, pp. 383-387; Pharo 1986 I, pp. 116-130.

from nearby villages to the Bombay market, an activity that was expanded after World War II. By the early 1950s increased sales at higher prices had induced fishermen to purchase mechanized boats or install engines in traditional craft. However, elsewhere in India indications of change were conspicuously absent. There was essentially no land based infrastructure apart from those who built the traditional craft, transported the fish on foot or by bike a few miles from the landing areas, and the outdoor drying and salting areas.

The Government of India settled on two complementary approaches to modernize the fisheries sector. Institutions were established to promote fisheries research, fisheries education and exploratory fishing. Large scale expansion and modernization required a pool of skilled workers, technicians and scientists both on land and sea, as well as a vastly expanded knowledge of resources, fishing grounds, seasonal variations of pelagic and demersal species, and weather and harbor conditions. The future state of Kerala would obviously play an important role in this part of the modernization program both because of the importance of its fisheries and because on the West Coast of India together with Bombay the port city of Cochin was the only suitable location for such development programs at that time.²⁹ As we have seen the INP initially was not to support this part of the Indian fisheries modernization program.

Secondly Indian fisheries were to be transformed from within the villages. Stagnation was to be overcome by several strategies. Increased catches and a larger and higher quality supply of fish to domestic markets would benefit consumers and increase fishermen incomes. Cooperative control of fish distribution was seen as an important means to the goal, as was a gradual improvement of gear and craft, including mechanization. Indian plans as formulated before the INP was launched recognized the fact that fishermen were dispersed along extensive coastal areas and that modernization from within the villages would require a modicum of centralization with regard to infrastructure development such as boat building facilities and mechanical workshops as well as the landing, preservation, processing and distribution of catches. Appropriations for the village route was appreciably smaller than for the urban one.³⁰

The sort of modernization that required an urban base and urban markets was clearly more to the liking of both the Planning Commission and central and state fisheries authorities. We may assume that they also considered that the Norwegians would be the more familiar with such an approach than the inevitably difficult and time consuming work of transforming village economies. Thus their initial attempts to steer the Norwegians to Bombay. However, once it dawned upon them that the Foundation for Aid to Underdeveloped Countries actually insisted on engaging the obviously needy rather than the probably speedy, they eagerly grasped the opportunity to have the Norwegians take care of their least favored approach to modernization, at little cost to themselves. Neither the Norwegian negotiators nor the

²⁹ Pharo 1988, pp. 384-385.

³⁰ Ibid.

rest of the Board quite grasped the point that they had negotiated themselves into a position where by agreement they had committed themselves to trying to solve a task that they were poorly equipped to deal with, and that the Indians would be unlikely to let them off the hook easily given the commitment and prestige involved.

Boat and Beach

Mechanization, either by installing engines in existing craft or by introducing new mechanized beach landing craft was to serve two overarching goals, on the one hand a larger supply of food for the domestic market and on the other higher incomes for the fishermen. By introducing mechanized boats with greater speed and reach that could also utilize a greater range of gear, the project planners assumed they could accomplish those goals. Installing inboard engines in existing beach landing craft was considered to be both the quickest and cheapest way of doing it.

Accordingly two canoes of the kind used in the villages were shipped to Norway in December of 1952 to be fitted with engines and for trials in Norwegian coastal waters. Suitable engines were not produced in India at the time, neither was there any mechanical workshops in the area that could handle the task of fitting the boats with engines. Two of the local boat types were presumed suitable for mechanization, the *thanguvallam*, a canoe type boat measuring about 40 feet and manned by a crew of nine to eleven, and the *kochuvallam*, measuring about 25 feet with a crew of four to six. The larger boats were employed primarily towards the end of the monsoon in August and September, the smaller ones during the remaining fishing seasons. During the monsoon fishing came to a virtual standstill. As opposed to the smaller boats the larger ones could use a large ring seine particularly suited for the large schools of fish coming inshore at the tail end of the monsoon. They were also better at traversing the huge monsoon surf.³¹

Even before the trials were started, however, Board members were expressing doubts that the canoes were suitable for mechanization, and the first trials in the fjords of Southern Norway fully bore out their misgivings. Still the canoes were returned to the project area for further trials and for training the fishermen in handling engine and mechanized boat. The problems encountered were manifold and due to a mix of technological, natural and manpower obstacles. In the first place the canoes were insufficiently sturdy to withstand the vibrations caused by the engine. They tended to fall apart. Secondly, when the canoes were fitted with engines they became much more difficult to handle in the surf than was the case when propelled by oars. They capsized more easily. A wet and sandy engine was no good for the remainder of the day. Even the loss of an hour would put a boat at a disadvantage in the competition to be

³¹ Pharo 1986 I, pp. 126-127; A. M. Klausen, *Kerala Fishermen and the Indo-Norwegian Pilot Project*, Oslo 1968, p. 125; S. K. Dhar to H. U. Sverdrup, 02.01.52, IFA, B 12/52-56, F 221.

among the first to market the catch. This was crucial as market prices fell quickly from the time the first catches were landed. Thirdly, an important goal of mechanization was to reduce the number of fishermen per boat in order to increase incomes. However, the number of fishermen per boat was also tailored to the tasks of launching the canoe from and landing it on the beach. A smaller crew could not manage those tasks as the boat would be too heavy for the reduced number. Thus the Norwegians concluded very quickly, the idea of mechanizing beach-landing craft was a non-starter.³²

Each of the problems encountered provided sufficient reason to shelve the idea of mechanizing local beach craft, and the latter two foreshadowed the problems that were encountered also with the new beach-landing craft that were introduced later. The Indian counterparts in Trivandrum and New Delhi were not, however, satisfied that the Norwegians had made enough of an effort to solve the problems. They had been persuaded by the eloquent Norwegian pleading for village based fisheries development, even though most of them were skeptical of the beach landing approach. However, they were not about to let the Norwegians easily off the hook of the agreement. Failure had to be documented properly by means of sustained experiments and a documentary presentation of the evidence. In this process a clash of cultures compounded the difficulties created by nature and technological incompatibilities. The academically well trained Indian administrators and fisheries experts were disinclined to accept the rule of thumb based conclusions of Norwegian fisheries experts, who until the latter half of the 1950s were not academically trained but largely ordinary fishermen or middle range fisheries officials, with no great command of the English language. The Indians were the theoretically inclined academics, the Norwegians in the field were hands-on men who themselves had experienced the mechanization of Norwegian fisheries and the development of port based fisheries. They did not need experiments to conclude that they were heading towards a dead end.³³

The Indian fisheries authorities maintained pressure on the INP to continue beach landing trials with traditional craft as well as with the prototype beach landing craft developed by the project. The 22 feet boat with an inboard engine introduced by the INP was first built in Norway and then in the project boat building yard. By the end of 1957 altogether 67 boats had been distributed to fishermen in the area and more than 100 persons had completed the training course. The boats were partly operated from the beach, but mostly used the outlet from the backwater as a makeshift port facility. The combination of Indian pressure and a professor of fisheries economics as project fisheries leader and later as project director, led to further trials and the experimental symposium "The Boat and the Beach" in the spring of 1958.³⁴ The conclusions vindicated the common sense observations of the Norwegian fishermen experts,

³² A. Abrahamsen to India Foundation, 26.03.54, IFA, B 26/56-57, F 250/57.

³³ Pharo 1986 I, pp. 127-130.

³⁴ Gerhard Meidell Gerhardsen was professor of Fisheries Economics at the Norwegian Business School in Bergen and served in the project 1957-58. He was the first of several highly trained academics and administrators who from

and pointed out in no uncertain terms that the basic assumptions behind the 1952 decision to develop beach fisheries, were faulty. Types of boats and beach conditions varied greatly along the coasts of India. With the then existing technology there was no basis for an all-India beach-landing craft. A 1960 report to the joint Indo-Norwegian governing board of the project, the Standing Committee, stated rather tersely: “Such boats could not be economical at the present stage of development, and it is unlikely that they would ever be.” In sharp contrast to the planners in 1952, the report concluded: “The introduction of mechanized beach craft is infinitely more complex than the introduction of mechanized harbor based craft.”³⁵

In their eagerness to bring home a project that they assumed would appeal to domestic public opinion the members of the Norwegian delegation had systematically underestimated the difficulties their project would encounter, neglected to investigate the available literature on Indian fisheries, and tried to accomplish tasks that could not be mastered. Albert Hirschman has dubbed this the principle of “the hiding hand”.³⁶ The hiding hand may also function as a blessing in disguise, in the sense that while an impossible goal is being pursued, other solutions to the problem at hand may be found. The work of the INP provides a stellar example of this aspect of the hiding hand mechanism.

Providing the Incentives: The Harbor Vista, Subsidies and Milching

As noted above the fishing villages hosting the project were located on either side of an outlet from the backwater, at Ashtamudi Lake. The fishermen, as well as the Norwegian experts, could use Ashtamudi as a fishing port since the relatively flat bottomed boats designed for the fishermen as well as the somewhat larger boats that were brought to the area for trials and exploratory fishing could quite easily navigate the outlet outside of the monsoon period when the surf was relatively modest. However, the monsoon problem remained, and the fact that the sand bar at mouth of the outlet constantly shifted also confronted the project with a significant obstacle to sustained success. Over time fishing operations from Ashtamudi demonstrated the superiority of mechanized boats over the indigenous canoes in several respects.

By the early 1960s a major transformation of Kerala fisheries was in the offing, change being brought about along two different lines, night time driftnet fishing for larger quality fish such as kalava and seer fish, and daytime trawling for shrimp. As mentioned the main traditional catches of the villages were small pelagic fishes. These were caught in inshore waters. Thus, apart from the fact that mechanization proved an obstacle rather than an advantage in terms of beach launching and landing, in the

the second half of the 1950s put the project on a different course with marine research, exploratory fishing and training personnel for the modern sector became the key tasks.

³⁵ Report on the Trials in surfing and beach landing conducted by the Indo-Norwegian project, for 12th meeting of the Standing Committee, 09.09.-10.09.60, IFA, B 2-60, F 008.6; Minutes of the Standing Committee, 09.08.60, IFA, B 1-60, F. 000.2.

³⁶ A. O. Hirschman, *Development Projects Observed*, Washington D. C. 1968, pp. 9-34.

traditional fisheries the added range and speed gained by mechanization represented at best only a marginal gain in terms of making it to the fishing grounds and returning to sell the catch. The possible advantage of going out twice in a day was in fact no option. Since ice, refrigeration, or canning had not been introduced, markets were easily overwhelmed by large catches and prices were under heavy downward pressure. Fish was frequently given away, thrown away or used for manure. Thus mechanization of the major traditional fisheries offered few obvious incentives for the fishermen on the one hand, and on the other higher fixed and variable cost, and accordingly considerably higher risk.³⁷

What then made the breakthrough possible given that even as the technological problems were gradually overcome the market situation remained an obstacle? In the first place during part of the season shoaling fish were found further from the shore and more dispersed than was the cases at peak season. Under such circumstances the mechanized boats enjoyed an advantage in terms of reach and mobility. From 1955 onwards there are frequent reports of the higher prices and increased incomes such catches provided. However, the great variations between glut and scarcity still exposed the fishermen to uncertainty. The possibility for marginally higher incomes did not in itself provide sufficient incentive for the fishermen to invest in mechanized boats.

The Norwegians in the villages were men with a mission. They were convinced that theirs was an extremely important task and they were convinced that mechanizing beach fisheries would lead nowhere. They wanted to develop a fisheries port in Ashtamudi, and were systematically looking for other species that would be better suited as a basis for mechanization. They also looked to the dories and other somewhat larger boats that were brought to the project area as possible prototypes for a larger boat to be offered to the fishermen. The pressure for an Ashtamudi port further increased as these boats could not operate from the beach, and the shifting sand bar would easily become a serious obstacle. When three schooners arrived in India in 1955 to be used for exploratory fishing and research they had to be stationed in Cochin, thus further tending to push the project in the direction the Planning Commission originally had wanted it to take. The exploratory efforts served to locate valuable fishing grounds at a greater distance from the shore than the traditional craft normally ventured, and where the mechanized boats could utilize their superiority in speed and reach.

From the time the schooners arrived in Cochin in January of 1955 until the beach landing project was officially shelved in 1960 the INP moved along three different tracks, beach-landing in the villages by Ashtamudi; exploratory fishing and the development of port based fisheries from Ashtamudi Lake with small craft combined with efforts to persuade the Indians to build a proper port for smaller craft there; and, finally and based in Cochin, exploratory fishing, marine research and the training of personnel for all aspects of the fisheries industry. Exploratory fishing with small craft from Ashtamudi had been conducted

³⁷ Pharo 1986 I, pp. 261-298.

almost from the beginning for the purpose both of locating new resources and fishing grounds and for the purpose of training the villagers in the use of mechanized boats and the employment of different gear. Soon the fishermen also transferred their boats to the lake rather than trying to operate from the beach. Until 1957 beach fisheries functioned as smokescreen behind which port fisheries were pursued. In that year the two village approaches were formally divided into two programs, and the project started building larger boats, from 25 feet upwards with stronger engines, in order to properly exploit the wider range of possibilities that would be within reach from an actual fishing harbor.³⁸

Yet there was no straight and easy way to the breakthrough in the early 1960s, even though on several occasions from 1955 to 1958 project experts proclaimed that finally the mechanized boats were on the point proving their superiority over the canoes in terms of larger catches, a longer season and higher profits. At such times demand for boats rose temporarily, for the 22 feet as well as the 25 feet with more horsepower. Yet demand remained sluggish and by 1959 only a very small number of the mechanized boats were engaged in regular fisheries operations. The academically trained fisheries experts that were brought to India, from Gerhard Meidell Gerhardsen and the Director and Deputy Director of the Directorate of Fisheries, who served as INP fisheries officers and directors, to a large number of first rate Norwegian fisheries experts, all basically despaired of succeeding.³⁹ Their conclusions strengthened the process that eventually led to project headquarters and the main activities being concentrated in the twin cities of Cochin-Ernakulam. In the twin cities an infrastructure that could support a modern industrially and research oriented project was coming into place.

Yet at precisely the time when the INP was giving up on the villages, the early indications of a breakthrough are discernible, certainly in retrospect and possibly to some of the project workers at the time. Neither the Board in Oslo nor the high level advisers who by this time had largely returned to Norway, were aware of this turn of events. There were probably two main reasons for this. On the one hand there was the issue of a time lag, which was partly due to the fact that it took some time for the project administration to fully digest what was taking place, and partly that communications between the Project area and Oslo were slow. On the other hand all the fisheries experts brought down from 1956 onwards were concerned that the task of the project was, as Meidell Gerhardsen put it in 1958: “to do something that could contribute to create some sort of activity that could raise the standard of living for fishermen in Kerala and in India in general”, rather than merely raise the standard of living in the project area. The local fisheries population in his opinion clearly had misunderstood the goals of the INP, but Meidell Gerhardsen and his successors were adamant that it should be brought back to its initial

³⁸ Ibid; and also pp. 350-383.

³⁹ The Norwegian Director of Fisheries, Klaus Sunnanå, served as fisheries leader 1959-60, while a seasoned diplomat, ambassador Ernst Krogh-Hansen, served as Project Director. Sunnanå's deputy Trygve Aas, served as both project director and fisheries leader 1958-59. The pressure to succeed was immense.

overarching goal, to support Indian fisheries in general and as he put it, the efforts made must have a “multiplier effect.”⁴⁰

When the Project was launched the Board as well as Lund were on the one hand convinced that the mechanized boats would quickly prove to be superior to the canoes, and that demand would follow automatically. However, they were also of the opinion that in the beginning they could not expect the fishermen to purchase the boats at cost price either directly from the Project or alternatively through the local fishermen cooperatives. The price of the mechanized boats was almost double that of the canoes, and variable cost would of course also be considerable higher. During the initial phase the boats had to be subsidized.

The Project provided several incentives in order to encourage the purchase of boats. Boats were sold at 50 per cent of cost price, nets were subsidized at 80 per cent, and the fishermen taken on as trainees to learn the art of mechanized fishing were paid a stipend during the training period. With the project providing such benefits it is not to be wondered that boats were in demand even if they were not convincingly superior to the canoes. In addition to the incentives provided, the fishermen managed to milch the project in several ways. Most of them simply did not make the required down payments on the boats, a feat accomplished in several ways. Payment for boat and fuel was to be taken out of the fishermen’s catch, as a percentage of the total. The easy way to increase income was simply to doctor the sales reports. Later stratagems became more elaborate, and a favorite means of cheating seems to have been to transfer a considerable part of the catch on to some of the traditional canoes before returning to shore. Frequently the fishermen also sold the catch to the private fish traders rather than through the cooperative, which was responsible for the payments scheme.⁴¹

It was an uphill battle for the project both to collect proper statistics of the catches and to enforce payments for fuel and repayments for the subsidized nets and boats. The reluctance of the fishermen to actually join the experiment on the INP’s terms and report catches properly as well as make the required payments, is also demonstrated by their attitude towards attempts at stabilizing prices. In order to avoid the extreme market fluctuations the INP developed a scheme whereby they would buy the catches of the mechanized boats at prices set in advance, basing the price offered on longer term trends. The fishermen exploited this system as they had exploited the other incentive systems that the project had developed. When the prices that the middlemen offered dipped below those of the INP, the catch would be offered to the project. When prices on the beach were higher, the INP would be short changed. As the system developed, fishermen would generally sell the better priced quality fish to the middlemen and the lower priced shoaling fish to the project. Thus in the period when the INP struggled to establish whether or not

⁴⁰ G. M. Gerhardsen, “Report on my work with the India Project 1957-1958”, 01.07.58, pp. 6-8, IFA, B Reports.

⁴¹ Pharo 1968 I, pp. 260-297.

the mechanized boats would be viable competitors to the canoes, the behavior of the fishermen in fact made it impossible to ascertain whether that in fact would be the case. The project management and the experts were perfectly aware that they were being taken for a ride, as Lund communicated to the Board in May of 1957:

Just had a talk with Asbjørn who says it is quite incredible how we are being cheated by the fishermen. Francis is setting up a house worth Rs 15000. There is possibly one honest man among our boat-owners, Xavier. He has a mother-in-law who forces him to pay the installments and has made payments of Rs 900 this year.⁴²

Yet they could do nothing to rectify the situation. The INP was dependent on fisherman cooperation, and the staff was painfully conscious of the fact that they must produce results both for the fishermen to continue working the boats and for the project to maintain its support in Norway. The aid recipients on their side seem to have been equally aware of their strong bargaining position. In their communications with the project they consistently emphasized that the project must bring benefits to them. While the donors and the recipients in some sense agreed on goals, i.e. larger catches, a better distribution system and higher incomes, their perspectives and approaches were fundamentally incompatible in two respects. The INP was running an experiment for the benefit of the fisherman population of India in general, an experiment geared to eventually produce results on a grand scale. The project needed reliable statistical and other information to see if their new technologies and methods would actually serve to improve the lot of the fisherman.

The recipient fishermen had not asked to participate in this experiment. There was in fact no preexisting demand for mechanized boats in the area, or for the other innovations brought in by the INP. The push for modernization came from the outside to recipients who certainly appreciated the gifts they were brought, but who were not inclined to take any of the risks that pursuing technological innovation would entail. Thus they exploited their position of strength provided by the Norwegians' need to succeed. They went for short term profit regardless of the fact that for the INP this was dysfunctional. Clearly they could not bear the risk, and as clearly there was no reason for them not to reap short term profit from gifts that had not even been asked for.⁴³

The range of recipients who looked to the INP as a milching cow did not only include actual fishermen. The cooperatives that participated in the selection of trainees and engaged in the sale of fish were run by middlemen and other bigwigs as much as or more than by actual fishermen. Thus it is not unlikely that the stipends for training were awarded not only to bona fide fishermen. A number of the mechanized boats were immediately leased to others, nets were sold, and boats used for purposes with at

⁴² D. H. Lund's diaries, vol. V, 30.05.57.

⁴³ Pharo 1986 I, pp. 261-297.

best tenuous links to fishing operations. Thus the decline of fisheries operations by the mechanized boats towards the end of the 1950s may be attributed to the wide range of exploitative opportunities introduced by the INP. The demand for boats during the first five years was built on subsidies and exploitation not on any proven capacity to bring higher incomes. As the project was moving towards stricter repayment schedules the fishermen seem to have agreed that the risk and cost of mechanized fishing outweighed the possible gains.

By this time, however, the many possibilities for exploiting the project, together with the incentives that the project intentionally offered, actually had succeeded in providing the framework that made success feasible in the longer run. A small number of fishermen kept at it, the training courses were being conducted and exploratory fishing operations were continued from Ashtamudi Lake. The benefits from the continued activities were two-fold, apart from the speculative gain. On the one hand the fishermen gradually developed greater expertise in steering the mechanized boats through the surf at the Ashtamudi outlet. At the same time the interaction between the fishermen and the project with regard to the construction of somewhat larger boats with more powerful engines further improved the ability of the mechanized boats to extend the season backwards and forwards into the monsoon. Larger boats and learning by doing led to the development of a proven advantage in seaworthiness on the part of the mechanized boats over the canoes.⁴⁴

Shrimp for Exports

Exploratory fishing and the minimal fisherman participation over time led to the development of night time driftnet fishing for larger quality fish that fetched much better prices than did the shoaling fish. These species were not as vulnerable to market fluctuations since the supply was more stable. The mechanized boats could then engage in new fisheries where they were not in competition with the canoes. They enjoyed an overwhelming advantage to the extent that the traditional canoes in fact could hardly participate. A gradual breakthrough took place from 1959 to 1962, which led to a fairly rapid increase in demand for the new 25 foot boat at cost price and with far more stringent payment conditions than had previously been the case. This part of the transformation of Kerala fisheries was without doubt mainly due to the efforts of the INP in cooperation and conflict with the local fishermen. It is not possible to see any other comparable modernization effort at the same time. On the other hand it is not possible to reach any hard and fast conclusion as to whether this breakthrough would actually have caused a major wave of mechanization. There are two reasons for this, the most important one being that hard on the heels of the driftnet fishing success followed the success of shrimp trawling from the project area which led to a far more dramatic increase in the demand for mechanized boats that could be used for trawling as well as for

⁴⁴ Pharo 1986 I, pp. 188-202.

other purposes. Profit margins in shrimp trawling were far greater than in driftnet fishing. Secondly, shrimp were exported to the world market – the United States to start out with and then to Japan and Australia – and demand was extremely strong. The fish traders did not have to develop a domestic market for new products, they could make do with processing the shrimp and shipping it to already existing markets. To achieve a major market expansion with regard to quality fish they would have needed to develop a domestic marketing scheme with insulated vans, and storage facilities for iced and frozen fish and retailers concerned with long term market development rather than short term profit. The experiments of the INP demonstrated that developing a modern domestic market would not be easily achieved in a non-urban setting.⁴⁵ It is far more difficult to apportion blame or praise for setting off the shrimp bonanza than is the case for driftnet fishing. As we have seen shrimp already constituted a major part of the total marine catch both in India and on the Malabar coast. From about the time when the INP started work, entrepreneurs in Cochin and a fisheries expert working for the FAO were conducting exploratory fishing for shrimp. Two exporting companies in Cochin and Calicut respectively had set up small freezing plants and small quantities of shrimp were exported. International business interests were also interested in developing shrimp fisheries and locating the shrimp grounds that they knew must exist. However, neither the internationals nor local entrepreneurs were very successful. On the one hand the juvenile shrimp caught in inshore waters and the paddy fields did not fetch a very good price, and secondly the hygienic standards at the freezing plants were distinctly inferior. Exports to the United States were occasionally refused for that reason.⁴⁶

Three sets of problems had to be solved to develop shrimp exports. Two of them were relatively simple. The matter of hygienic standards represented a question of training and supervision of workers. As the INP was to demonstrate that could easily be achieved. Secondly there was the problem of locating the shrimp grounds. That was also quite easily achieved by INP trials and by an Icelandic FAO expert at much the same time in 1955-56. The tricky part, as in the case of mechanization generally, was getting the fishermen interested in catching shrimp on a sustained basis. The problem was two-fold. Firstly, shrimp, as has been discussed above, was a low quality product consumed locally or exported as fertilizer. Thus the fishermen primarily went for shrimp when no other species were available. Secondly the entrepreneurs getting into the business of exporting frozen shrimp were clearly intent on exploiting the differential between the low price for shrimp locally and the high price within reach on the world market. Thus rather than paying the fishermen a wage based on a share of the actual value of the catch – as in Norwegian fisheries – they paid them a low fixed wage based on shrimp as a low price product. Thus, whenever other species were available the fishermen went for them rather than shrimp. The main impediment appears to

⁴⁵ Pharo 1986 I, pp. 298-327.

⁴⁶ Pharo 1986 I, pp. 179-187.

have been the desire of the local entrepreneurs for short term profit and their inability to see the likely economic gains to themselves by offering stronger incentives to the fishermen.

The importance of the INP lies neither in discovering the shrimp beds, though the project did most of that job, nor in introducing higher hygienic standards in processing, but in introducing incentives for the fishermen working the exploratory boats that operated from Cochin and in maintaining the operations from Ashtamudi while shrimp beds were being located. Thus the introduction of trawling with medium sized boats from Cochin came more quickly than would otherwise have been the case. Even more important was the introduction of the 25 feet and then the 28 feet trawlers at Ashtamudi and the concomitant pressure to build a proper port for medium size fishing boats. This coincided with a change of Indian fisheries administrator in New Delhi and more generally changing Indian approaches to the development of the primary sectors. There was a greater meeting of minds as between the new Indian fisheries officials in New Delhi and the academic and fisheries administration expertise brought to the project from 1957 onwards.⁴⁷

Port: Phase II

The idea of developing a port at Ashtamudi had first been broached in March of 1953, before fishing operations had started properly. Two factors account for these first tentative proposals, on the one hand the experts had time on their hands while waiting for boats to arrive, on the other hand even Lund who was strongly committed to beach fisheries was of the opinion that without “a harbor and a secure outlet from the lake the chances for success are modest at best”.⁴⁸ The pressure to succeed was enormous and the project management as well as the experts were all convinced, based on the Norwegian experience with mechanized fishing, that only port based fisheries could lead to significantly larger catches and higher incomes. They felt the importance of their tasks very keenly, as one of the experts summed up their hopes in an early 1954 report: “The eyes of the world are on us.”⁴⁹

The perceived need to succeed and the apparent failure of beach landing as well as the limited success of the 22 feet boats from Ashtamudi, kept the port plans alive among the Norwegians. Divided counsel on the Indian side as to the desirability of port fisheries served to sustain a glimmer of hope.⁵⁰ The Second Supplemental Agreement from 1956 envisaged investigating the feasibility of dredging and protecting the outlet with breakwaters. Tests were made at the Central Water & Power Research Station at Poona, and in 1957 a Danish harbor expert was hired for further investigations.⁵¹ By 1958 the conclusions

⁴⁷ Pharo 1986 I, pp. 298-315.

⁴⁸ D. H. Lund to India Foundation, 14.12.53, IFA, B 3/52-56, F 50/52-53.

⁴⁹ S. Vågen, 01.02.54, survey, Project Archive in India (PAI), B 5/58-59, F 108/57-58, general reports.

⁵⁰ Pharo 1986 I, pp. 157-159.

⁵¹ Sandven 1959, p. 147; Pharo 1986 I, pp. 157-160.

indicated that there was no cheap and easy way of making Ashtamudi into a fishing port. The India Foundation would not have the funds to take it on, and the fate of the village project appeared to be sealed. By the early 1960s all project activities would be transferred to Cochin. The project would continue to build and distribute the 25 feet boats, but with no great hope that they would represent the road to a breakthrough. The project management and the Board would merely fulfill its perceived obligations by completing the boat building program, distributing the boats to fishermen and finishing the project infrastructure program.⁵²

As the village project in late 1959 seemed to be moving inexorably towards its demise, Kristian Gleditsch, the new chairman of the Board of the India Foundation, and at the time heading a delegation traveling in India, sent an urgent telegram to Oslo: “The additional report on the port case not to be distributed stop novel points come up stop inform by telegraph regarding if and when Svendsen has received the Poona report.”⁵³ The Indian context was changing significantly. Change was partly driven by India’s increasingly precarious foreign exchange situation. Increasing the exports of marine products was seen as a possible part of the solution, and the authorities in New Delhi were keen to promote export oriented fisheries with larger boats and an industrial infrastructure, if necessary with the aid of foreign capital.⁵⁴ The emphasis on larger inputs mirrors simultaneous developments within Indian agriculture. The economist Lawrence Veit has pointed to the impact of a report from the Ford Foundation:

What was new in India’s effort to spur agricultural development after 1959 was the major augmentation in the research effort and the effort to demonstrate that the massing of various inputs, as described by the Ford Foundation team and elsewhere, would deliver the necessary output.⁵⁵

Secondly as the Second Five Year Plan was approaching its end there were significant unspent funds for port development. Some of them were to be utilized in Kerala, and as plans were developed for smaller fishing ports, central as well as state authorities pointed to the path breaking efforts of the INP at Ashtamudi Lake. This was the context for Gleditsch’s request that the report not be distributed and that the project engineer Åge Hjelm-Hansen and Sunnanå subject Svendsen’s report to a critical scrutiny.⁵⁶ On the basis of the more extensive trials pursued at Poona after Svendsen had completed his work, Sunnanå

⁵² Pharo 1986 I, pp. 285 ff.

⁵³ K. Gleditsch to P. Sandven, 06.11.59, IFA, B 6/59, F 111; Sverdrup died in 1957, and after a somewhat confusing interregnum Gleditsch was selected to head the Foundation. As most of the other leading lights of the Foundation he belonged to the political left, he was a top level civil servant with considerable international experience, also from intelligence work during World War II. He was instrumental in getting Krogh-Hansen to take over as project director.

⁵⁴ R. Bruu, K. Gleditsch, K. Sunnanå, report from Board delegation to India, October-December 1958, dated January 1959, ANMFA 26.7/12 XVII; H. Olav to NMFA, 31.12.59; Pharo 1986 I, pp. 373-374.

⁵⁵ L. A. Veit, *India’s Second Revolution*, New York 1975, p. 230.

⁵⁶ Sunnanå had been made a member of the Board before he went to India as fisheries officer. He was to succeed Gleditsch as chair in 1965 and served for two years.

and Hjelm-Hansen concluded that the port project was feasible at one tenth of the cost estimates of Svendsen. The new trials had demonstrated that the breakwaters could both be had at a lower cost than initially estimated and that the cost of dredging would also be significantly lower. Gleditsch then pointed out that the much desired port project was “definitely within the realm of the possible.”⁵⁷

Two breakwaters would be constructed and dredging would be resumed. The port plans would then justify completing the infrastructure development on shore, and would have the added benefits of serving other business interests in the area, producers of cashew nuts and various products of coco nut fibers as well as rare earth exporters. The decision to build a port was taken before the breakthrough in mechanized fishing and justified the construction and introduction of trawlers up to 28 feet and even larger, which were crucial for the rapid expansion of shrimp trawling by the mid 1960s. The INP was to contribute “financial support to a harbor project of importance for the Project area. The Norwegian India Foundation will consider that question on the basis of plans and proposals which may be submitted”.⁵⁸ It was considered particularly important that the Government of India was proceeding to construct fisheries harbors for smaller craft and that the efforts of the INP could be utilized not just in the project area.

By way of several detours the INP then had managed to accomplish its mission of serving as a pilot project. By sustained exploratory fishing new resources had been discovered and by a long drawn out process of experiments with boats and gear the fishermen had acquired the skills and the equipment required to exploit these resources. The project had accomplished its mission in a manner significantly different from that envisaged in the original agreement. (We should not be surprised at this, the advantages of ignorance, hiding hand) The Norwegians through the INP, with some support from New Delhi and Trivandrum had borne the better part of the cost of introducing and adapting the new technology, and by means of its subsidies and the ability of the villagers to milch it, had made participation in the process virtually risk free for them. The entrepreneurial risk had been taken on by the aid donor.

It is to be doubted that the breakthrough would have taken place at Ashtamudi Lake but for the INP wittingly and unwittingly reducing risk. There was no demand for mechanized boats in the area when the project was launched, and the fishermen as well as the villagers at large accordingly were fully prepared to enjoy the benefits of the new technology and health services that rained down on them without their asking for it. It is an omnipresent theme in project reports that the project until about 1960 was valued primarily for the immediate benefits it brought, not for the potential for economic development through own efforts. The villagers, of course, were fully aware that the Norwegians in particular needed success in order to justify their presence. For a long time the main indicator of success was local

⁵⁷ K. Gleditsch to P. Sandven, 06.11.59, IFA, B 6/59, F 111.

⁵⁸ E. Krogh-Hansen to India Foundation, 23.11.59, with attachments, IFA, B 6/59, F 111.

willingness to purchase boats whether on individual basis or through the cooperatives. Thus they were in an extremely strong position to force the INP and Kerala fisheries officials to accept boat sales directly to the fishermen rather than through the cooperatives. The INP could not wind up its fisheries activities without having gotten rid of its boats.⁵⁹

While the villagers could not have had any inkling of why they were to be beneficiaries of such gifts, the Norwegians were equally ignorant of the problems facing them in their efforts to achieve a technological breakthrough. The principle of the hiding hand worked well for both parties to the process, strongly supported by incentives provided by the INP and appropriated by the villagers.

Markets and middlemen

As complex as was the process of boat development and adaptation, it was simple as compared to the problems the INP faced with regard to on the one hand the preservation, processing and marketing of the catch, and on the other market control, debt and credit relationships and the project goal of replacing the middleman by cooperative control of fish distribution.

When the project was launched it was estimated that fresh fish was distributed within an area of 10 to 20 miles of the shore. Fish was transported by car, bicycle or head basket and ice was neither produced nor used in the project area. The fresh fish traders had to leave the landing areas early in the day, as the catch deteriorated very quickly. It happened in fact not infrequently that it was not fit for human consumption by the time it reached the shore. Fishermen who arrived after the traders had left received a significantly lower price for their catch which was then salted, sun dried or in periods with very large catches, used for manure. As a rule only around half the catch was sold in fresh condition, and even that part, as a Norwegian sales expert explained, “smells bad and looks awful”.⁶⁰ Thus the introduction of ice, refrigeration and freezing technologies was vital to improve the quality of the product and to enlarge the area that could be reached by the traders. The High Ranges of Kerala, an area of plantations, were thought particularly suitable potential for market expansion, and the INP started experimental sales during the winter of 1956-57. Sales experiments were conducted with both fresh and frozen fish by the end of the 1950s, and with both the small fish such as sardines and the larger quality fish. The private sector fish traders after watching INP experiments did start to use ice, and by 1960 demand for the INP ice production had taken off to the extent that the plant ran three shifts daily. Yet there was by the early 1960s little indication that the local fish traders would engage in large scale sales in the High Ranges. Sub-contractors employed by the INP were characteristically concerned with short term profit and frequently

⁵⁹ “A review of the Indo-Norwegian Project” for 10th meeting of the Standing Committee, 09.11.-10.11.59, IFA, B 1/59, F 000.2; K. Sunnanå and T. Aas, “General Considerations concerning Fisheries Conditions in Kerala”, 11.03.59, mimeograph 19/59, ANMFA, 26.7/12, XVIII; Pharo 1986 I, pp- 374-376.

⁶⁰ L. Fjell, “Report on Work with Fish Sales” 03.03.58, IFA, B 7/58, F 179.

defaulted, wrote invalid checks or simply disappeared with the sales profits. The need for control with sales agents was clearly recognized by those preparing the bye-laws for the fishermen's sales organization: "The Marketing Officer shall make frequent visits to these markets and see that no mal practices are resorted to by the agents in the sale of fish."⁶¹

India's fishermen were in general highly dependent upon middlemen and moneylenders, whose ability to exploit them derived from the fishermen's need for loans for the purchase of boats and nets as well as for their need for credit for daily consumption needs when the shoaling fish failed to appear as well as during the monsoon when they could not make it out to sea. In addition the fishermen, as other low income groups in India, were dependent on credit to cover the expenses for major ceremonial occasions such as marriage and funerals. The result of indebtedness was frequently that fishermen were bound to sell their catch at less than market price. Many of the fishermen were neither single owners of boats nor shared ownership with others, but were hired hands. The fishermen position resembled that of artisanal fishermen in other pre-industrial societies, but was probably aggravated by on the one hand the extreme seasonal variations due to the monsoon and the concentration on shoaling fish, and on the other hand the very low ritual status accorded to fishermen in Hindu society.⁶²

The obstacles to mechanization that had to be overcome were thus not only due to natural conditions and the known resource base but they were also of a socio-economic nature. As for the fishermen they had neither the experience nor the mental horizon to spearhead innovation, and given their permanent position of indebtedness they were neither inclined to take on greater risk nor did they choose the option of engaging in long term savings projects that would be necessary to succeed with the mechanized boats. For most of them the option simply did not exist. As we have seen they preferred the short term gains that the INP intentionally and inadvertently offered. In the short term neither did the fish traders and money lenders appear interested in the new technology brought by the project. They basically joined the fishermen in the short term exploitation of the INP. As the middlemen also had a strong position in the cooperatives that participated in choosing the trainees, in all likelihood some of the early boat owners were middlemen rather than actual fishermen.⁶³ We may assume that they were as concerned as the fishermen with the shortcomings of the 22 foot boat as were the fishermen. It is a reasonable assumption that neither fishermen nor fish traders saw any obvious gains that would justify taking greater risk.

On the other hand the major middlemen had a much wider business horizon. They were informed about the attempts to develop shrimp trawling from Cochin and the beginning construction of ice plants.

⁶¹ "Formation of Sales Organisation", undated memorandum probably from 1957, PAI, B 2, F unmarked/file 117; Sandven 1959, pp 66-72.

⁶² Klausen 1969, pp. 54-118; see also P. R. G. Mathur, *The Mappila Fisher Folk of Kerala*, Trivandrum 1978.

⁶³ Pharo 1986 I, pp. 328-344.

Some of them were also engaged in the trade in Burma pulp with Southeast Asia. Thus in spite of the shortcomings of the first mechanized boats we might have expected a greater interest in the new technology both as regards boats and infrastructure development. Thus we need to look further. It seems likely that their reluctance to embrace modernization was not merely due to calculations of risk and uncertain gain, but was also grounded in the existing economic structures. They rather than the fishermen were the main beneficiaries of the existing system both in terms of income, social status and societal control. Furthermore, in order to expand the sale of fresh and eventually frozen fish on the domestic market and to reach consumers that were beyond the reach of the traditional distribution system, the major fish traders would have to establish a fairly costly system of refrigerated vans and sales shops dependent on a stable supply of electricity. The cost, the infrastructure problems, and the possibility that the subcontractors would prove unreliable, as the project discovered to its dismay during its trials, must have presented themselves as serious obstacles. Furthermore, improving the system for handling, storing and distributing the catch could conceivably weaken the hold of the fish traders over the fishermen. The changes on shore were likely to lead to higher and more stable prices during a longer fishing season. The fish traders may not have seen such a development as being to their advantage, unless profit margins would be significantly higher. Until the shrimp breakthrough they clearly were not. The Norwegian project experts explained the fact that the shrimp trawling experiments from Cochin in the mid 1950s made very little headway by referring to the low wages being offered to the fishermen. They were given no incentives to pursue trials vigorously, as the fish traders clearly preferred to maintain the prevailing dependency structure in the industry.⁶⁴

The First Supplemental Agreement outlining the tasks of the INP stated clearly that it should endeavor to replace private sector fish traders with cooperative control of first hand sales and distribution. This goal of transforming economic and power relations within the villages and more broadly on the Kerala coast, naturally contributed to a somewhat uneasy relationship between the project and the traders. The cooperatives in its relationship with the INP basically functioned as a means for milching the project. The middlemen who also to a considerable degree controlled the existing cooperatives, pocketed the better of the profit from the catch delivered to the project when it paid a higher rate than market rate. The fishermen only received a minor part of the price difference.

In spite of all the evidence indicating the likelihood of failure, and notwithstanding the pessimism expressed by project directors and fisheries leaders in the late 1950s, by early 1960 the INP made a major effort to wrest control of first hand sales and distribution from the traders. The experiment was based on the Norwegian model where fishermen's organizations have been awarded a legal monopoly of first hand sales by the state. This precondition was lacking in India. A sales organization was still established with

⁶⁴ Pharo 1986 I, pp. 298-335.

preferential access to the project ice-making, refrigeration and storage areas and freezing facilities. Armed with this privileged position and with tactical support and advice from the INP, the Sales Organization in late 1962 went on the offensive. The fishermen running the mechanized boats were offered significantly higher prices for their catches than the going rate on the beach. Predictably the Sales Organisation received more than it could sell. Once the local market and the sales stalls in more distant areas had taken all they could sell, storage capacity quickly proved inadequate given the quantities delivered and large quantities fish rotted and had to be dug into the ground.⁶⁵

The collapse of the Sales Organisation's efforts to gain a major position in first hand sales and distribution was partly the result of poor planning with regard to the adjustment of the price offered to fishermen. When the market was flooded with large catches of shark as well as the higher quality seerfish, tuna, kalava and pomfret, the Organisation had not planned for a reserve position to escape from such a predicament. The collapse was also helped nicely along by the major fish traders. When catches initially were fairly modest, they pushed the beach price higher than the set price of the Sales Organisation, with dramatically increased catches they stopped buying. Once the Sales Organisation had to start relieving the pressure on its storage capacity, the traders bought at 25 per cent of the first hand price offered to the fishermen. At the same time the support efforts of the INP were being sabotaged. The drivers of the delivery vans suddenly started complaining about long work hours, the vans broke down in inaccessible places, and in the freezing plant working conditions were more chaotic than at any time before or after.⁶⁶

We may assume that the traders would have made some sort of effort to undermine the Sales Organisation under any circumstances. They knew they were faced with a threat to their dominant position in the villages, even if the Norwegian project leadership stated that it was the goal of the Sales Organisation to "provide better conditions for cooperation between all fisheries interests in the area".⁶⁷ The statement was true as far as the introduction and utilization of new technology was concerned. The fish traders were slowly taking up the use of ice and were also given access to the freezing facilities. On the other hand the INP systematically worked to strengthen the fishermen vis-à-vis the traders. The fishermen perceived that they were on the offensive and that the Sales Organisation really represented a serious attack on the old order. The battle over the fate of the organization clearly contained elements of bitter class conflict.⁶⁸ The leader of the cabal of fish traders, Vincent Ferns (then Fernandez) together with his brother Ambrose, had an additional urgent reason for making sure the Organisation would fail. To fully grasp the process we have to backtrack a little. With the breakthrough in shrimp trawling in 1962 the INP started freezing and exporting shrimp to the United States. The project then invited both the Sales

⁶⁵ Pharo 1986 II, pp. 56-88.

⁶⁶ Pharo 1986 II, pp. 76-88.

⁶⁷ J. Hareide, *Sidelengs i sanden*, Oslo 1965, pp. 154-155.

⁶⁸ *Ibid.*

Organisation and local entrepreneurs, the most prominent being the Ferns brothers with Oceanic Products, to use the project facilities for freezing shrimp for export to the United States. Success was instantaneous. Just as in the introduction of mechanized boats the INP had succeeded in introducing new technology and demonstrating how to use it properly. They also took on the initial risk of showing the way to new markets. The project both demonstrated the new technology and handled the risk of innovation.

For the Ferns brothers and Oceanic Products and the other fish traders that entered the freezing and exporting business then, the potential success of the Sales Organisation under Norwegian tutelage posed both the threat of their exclusion from the project facilities in the short run, and the threat of a potential serious competitor for raw materials in the longer. Thus they had a strong economic incentive to finish off the Sales Organisation, and they largely succeeded in doing so. The Sales Organisation was reduced to a small scale player in the shrimp export business, kept alive by INP support and subsequently by inheriting the shore facilities set up by the project. It did not manage to maintain the inland sales of fresh and frozen fish started by the INP. The sales routes that the INP had established with great effort, were allowed to lapse. In the short run the private traders did not venture into inland sales and distribution. We may assume that they shied away from such long term and somewhat uncertain investments since shrimp trawling, processing and exporting in the short run could absorb available capital and labor. Furthermore, as noted above, for frozen shrimp a huge market existed, there was no need to develop it, and the traders quickly found out that once they had established adequate routines for quality control, risks were negligible.

The opportunities for making huge profits from shrimp exports attracted local capital as well as capital from outside the fisheries industry. Mechanization was rapid, a number of boat-building yards were set up. Ice factories and freezing plants proliferated on the Kerala coast and elsewhere. Employment opportunities increased vastly in the processing plants, especially providing new and better paid jobs for women. The demand for mechanized boats also provided the basis for starting indigenous production of engines for the growing fleet. Thus while the breakthrough in shrimp trawling and exports for a while sidelined the development of a domestic market for higher quality fish products, it provided the impetus for a broadly based development of the fisheries industry also on shore.⁶⁹

By providing new technology in terms of boats and infrastructure, by its experimental activities, subsidies and its role as a milching cow the INP played a crucial role in the transformation of Indian fisheries. Both fish traders and fishermen profited from the INP taking on the entrepreneurial function and carrying the risk. The growing interest and support on the part of the central and state governments both as regards fishing harbors and the development of a modern infrastructure were certainly also factors of major importance. Finally India's balance of payments problems and the devaluation of the rupee by one

⁶⁹ Pharo 1986 II, pp. 56-58.

third in 1967 made a major contribution. In the aftermath a veritable explosion of interest took place, a process known as the shrimp rush. By the 1970s some 2000 boats were operating out of the fisheries port in Ashtamudi, some 30 years later up to 6000 boats had Ashtamudi as a base at peak season. There were several other large scale fisheries ports on the Kerala coast, and fishermen would be moving up and down the coast in pursuit of their catch.⁷⁰

Entrepreneurs and Epigones

Such a rapid expansion also had unintended and undesirable consequences. Over-exploitation of the natural resources has been a recurring problem, as has environmental degradation due to unregulated trawler activities. Conflicts, at times violent, have erupted between the traditional fishermen and those running the new mechanized boats. The rapid growth of the mechanized fleet resulted in declining profit margins for the fishermen, and fish traders sold off their fleets and transferred the risk to fishermen. Various regulatory measures have been introduced since the 1980s, resulting in increased catches again from the 1990s. The most important measure was a ban on mechanized fishing during the monsoon, in order to create better fishing conditions for traditional fishermen.

To a degree the ban on mechanized fishing was a sham. By the 1990s traditional craft were fitted with outboard engines. Traditional craft also increased in size. Some new types measured as much as 60 feet and were fitted with up to three outboard engines. They had large crews and employed modern gear such as nylon nets and purse seines. They also did off-shore fishing, carried ice and could be gone for several days at a time. These larger traditional boats operated out of the fishing harbors, while the smaller ones used both beach and harbor. Technological changes that the INP considered impossible in the 1950s turned out to be feasible after all. New and smaller beach-landing craft fitted with outboard engines were introduced, being of approximately the same size as the 22 feet boat, but much more light weight so that they could easily be launched and landed by a small crew. Even some of the small rafts consisting of two logs were fitted with outboard engines. Some of the traditional canoe type boats were cut off in the rear in order to be used as trawlers, powered by outboard engines fitted on the sides. Thus the traditional sector, by exploiting regulations in their favor, was brought into the modernization process, contributing to the heavy pressure on the resources.⁷¹

The Norwegians had launched their aid initiative with a view to aiding the poor. One of the prime movers of the initiative, the prominent Labor politician, president of the Storting and member of the Norwegian Nobel Committee, Gustav Natvig-Pedersen, questioned the delegation when it returned from

⁷⁰ Information collected during field work in 2000.

⁷¹ Ibid.

India in late 1952 as to the degree of poverty in the project area and assumed that the area “was not among the best socially speaking”.⁷² The fishermen certainly fitted the bill in terms of need. What the planners had not taken into consideration was the crucial problem of how to persuade the fishermen to accept the boats in a way that ensured them higher profit margins and that would also ensure their independence of the middlemen. Given the structure of the fisheries industry, it is likely that only the exceptions would have been able to succeed under any circumstances. The problem was aggravated by the fact that the INP supplied boats for which there was no initial demand.

The less needy middlemen were much more adept at taking advantage of the unsolicited fisheries project. Once they saw the remarkable profit opportunities in the shrimp trade, they became the main agents of change. The INP thus in the end came to depend upon and aid those whom they had come to depose as the dominant socio-economic group in the villages.

The technological transformation in the longer run took place on a much broader scale than the Norwegians had envisioned when they were preparing to leave the project area. The opportunities for making a profit brought local and outside capital to the industry on a scale and at a rate that was not envisaged by anyone at the outset, even the grandiose plans of 1952 pale besides the growth process that actually took place. On the other hand, the goals pertaining to the redistribution of wealth and changes in the socio-economic power relations within the project area and the fisheries industry more broadly were probably never within reach. As a group the fish traders and other middlemen reaped the main profit from the booming export trade and later growth in domestic sales and distribution. The cooperatives were not suitable vehicles to stem this process given middleman opposition and the lack of legal protection. The project area Sales Organization represents an exception, but only partially succeed by virtue of INP material and technical support. Once local politicians entered the industry as exporters and boat owners the chances that change would primarily benefit the fishermen were even slighter. For a while the ownership of boats became even more concentrated, and fishermen in the modern mechanized sector to a considerable degree remained wage earners. In the traditional sector concentration of ownership was probably less pronounced. This, however, is not to say that fishermen and villagers more broadly did not benefit. Wage levels were improved, employment was far more stable throughout the year, and employment opportunities in the processing industry as well as in the land-based infrastructure increased dramatically, with possibly the most marked advantages accruing to women employed in processing and also as small scale fish traders.

By the time the fisheries project located at Ashtamudi was being wrapped up, the Norwegians in the INP had recognized that they could neither wield the influence nor have the insight to successfully intervene in local socio-economic and political relationships. When Johan Hareide, then Project Director,

⁷² Minutes 7th Board meeting, 28.11.52, IFA, B 6/52-56, F 170-52-54.

in 1962 invited the traders in to utilize the project freezing facilities, that represented the symbolic statement that economic transformation also required aligning with those who had the capital and mental horizon to promote change on a broader scale. With the conclusion of the Third Supplemental Agreement in 1961 the Board of the India Foundation, by then merged into the recently established Norwegian Agency for Aid and Development (NORAD), concentrated on activities that would put the INP at one remove from processes of social, economic and political change. Further village level work was not modeled on the Ashtamudi experiment. Three new stations were established at fishing harbors to be, in Karwar in present day Karnataka, in Cannanore in northern Kerala, and at Mandapam in the southernmost part of present day Tamil Nadu. The INP was to supply the necessary expertise to introduce mechanized fishing and new processing and distribution systems. But the Norwegians were basically to serve as advisors in a technical capacity, and not to meddle in local affairs beyond that. These stations were set up in the somewhat belated recognition that the development of mechanized fishing from small scale harbors actually was feasible, and that the Ashtamudi approach in that respect had served a pilot project function.⁷³

The main activities of the INP were transferred to the twin cities of Cochin and Ernakulam, expanding vastly the efforts that had been started in the mid 1950s with exploratory trawling with the 36 feet M-boats and the beginnings of exploratory fishing and marine research with three schooners brought from Norway in early 1955. Both the project management and the Board of the Foundation during subsequent years decided that the INP could make the most impact by engaging in marine research and explorations, thus mapping India's resources and setting up a firm scientific base for expanding its fisheries. The fleet of exploratory vessels was expanded considerably, and in 1961 the research vessel *Varuna*, which had been designed and financed by the Foundation, arrived in the project area. The project area was developed into a combined research, experimental and training compound where new marine products were developed, sales experiment were continued in a modest way, and technicians of all categories trained, including engineers, skippers and processing experts. Thus the project came to play a crucial role not just in expanding the store of scientific knowledge but also in providing the necessary qualified manpower for the rapidly growing fleet and land based infrastructure. The new approach was one of trickle down rather than the direct intervention through a pilot project. The Norwegians both at home and in India by the late 1950s had concluded that such an approach would have much more significant multiplier effect. In fact both approaches made significant contributions to Indian fisheries development, even if the pilot project did not succeed in the way intended.⁷⁴

The tasks to be taken on in the third agreement could not be completed by 1966, and a final one prolonged project activities until 1972, when NORAD terminated the INP much against the desires of the

⁷³ Pharo 1986 II, pp. 183-199.

⁷⁴ Pharo 1986 II, pp. 214-221.

Indians and against the advice of the project staff. Project facilities were taken over by the Indian side and continued as the Integrated Fisheries Project, which for a number of years was supported by a UNDP project manned by Norwegian marine scientists and largely funded by Norway.

The Administration of the INP

Development aid as cooperation between sovereign states was a novel form of international relations. It obviously differed from the relationship between colony and imperial state, and also from the relationship between the United States and the Western European states within the framework of the Marshall Plan. The Marshall Plan certainly involved interference by the United States in the internal affairs of other sovereign states, but it took place within a multilateral context in the Organisation for European Economic Cooperation and with a few exceptions did not involve the intimate engagement in recipient internal affairs that was attendant upon development aid projects that in reality had to be run by the donors. In the case of Norway's aid projects it must be added the fact that this recently independent country had no colonial experience to draw on. The ignorance that followed from that may to some degree have been a blessing in disguise as the Norwegians could be seen as significantly different from the old colonial masters and carried little of their arrogance. Yet it also represented a potential problem as they came without any experience in handling problems of cooperation and conflict within a completely different cultural and political setting.

While the First Supplementary Agreement outlined the goals to be achieved and the means to be employed, the question of how to administer the project for all practical purposes was left unmentioned. During the preparatory discussions the Board had concluded that whatever project was selected it must be one that generated strong Indian interest in order to ensure rapid progress. During the New Delhi negotiations the Norwegian delegation was very concerned that the project proposal would indeed appeal to Indian authorities. Well in advance of the delegation's departure for India the Board had also been warned by American aid administrators that unless their project had high priority on the Indian side, work might easily come to a standstill.⁷⁵

In addition to making sure that the project would be high on the list of Indian priorities the Board in the summer of 1952 decided that the Norwegian project director who was to be the intermediary between Indians and Norwegians in the field and between the Board and Indian authorities must be a person "able to gain the trust of the Indians and having the patience to deal with all issues in a spirit of understanding. The Board is lucky to have in its midst such a person, namely Diderich Lund, and that he is

⁷⁵ R. Hancke, report 06.06.52, IFA, B 15/52-56, F Archive 52-53, see also *Hjelp til selvhjelp* I, pp. 74-87.

willing to take on this very demanding task.”⁷⁶ Furthermore when Deputy Chair of the Board Karl Evang visited the project area in the spring of 1953 and together with Lund had conversations with the Travancore-Cochin Prime Minister and his chief administrators, he volunteered Norwegian payments to cover local costs in order to make quicker progress. The Norwegians understood, Evang said, that “there might be Indian budgetary problems”. The main thing for Norway was to get started and to be assured that the Indians “took a serious interest in our work”.⁷⁷

The Norwegians initially accepted that they came to India as technical advisers and that the administrative authority and ultimate responsibility for project progress must rest with the state fisheries authorities and in the end the state government. They were clearly convinced that a flexible director and Norwegian willingness to make advance payments to help the recipients when their funds were inadequate, would provide sufficient oil in the machinery. Neither the Board nor Lund had any inkling of the maze of bureaucratic complications that the project would face from the first day. Lund’s and Evang’s innocence in this respect is most clearly demonstrated when they declined the proposal by Tarlok Singh, the influential secretary of the Planning Commission, to hire a Project Officer to make sure the process would function smoothly, and who could also remain as chief project administrator once the Norwegians left.⁷⁸ With the advantage of hindsight it may be added that Tarlok Singh’s advice while sound and ultimately adhered to, hardly proved sufficient to give the INP a smooth ride. The structural problems in aid projects may be modified by the cooperative arrangements, but they cannot be eliminated.

Lund arrived in Kerala without either New Delhi or Trivandrum having designated an administrative counterpart for Lund. He started out by using a district fisheries officer to help him find his way in the state bureaucracy. After some months the state Director of Fisheries was appointed Project Officer, which he remained until 1963 when the main project moved to Cochin-Ernakulam and the three new substations were added.

Indians and Norwegians shared the overarching goal of mechanizing the coastal Indian fisheries. They agreed in principle that ultimate administrative and financial responsibility rested with the Indian side, initially with Trivandrum and after 1963 with New Delhi. This overarching agreement, however, did not preclude significant disagreement over project procedures and at times the Norwegian side within the INP also questioned the overarching agreement on ultimate Indian responsibility. The two sides were in fact engaged in a constant tug of war over virtually every aspect of INP activities. Essentially the internal project struggles concerned the need of the Norwegian side to organize project activities with a view to the

⁷⁶ H.U. Sverdrup, memo 05.09.52, IFA, B Div. 1952-59. F 1952.

⁷⁷ K. Evang to India Foundation 10.03.53, IFA, B 13/52-56, F 250/52-53; see also *ibid.*, F 251/52-53, D.H. Lund to India Foundation, 14.03.53

⁷⁸ K. Evang to India Foundation, 10.03.53 and 24.03.53, IFA B13/52-56, F 250-53; D. Lund’s Diaries, vol. 1, 26.-27.02.53. Copy in author’s archive.

speediest possible successful completion of the mechanization process. The Indians on their side were certainly also for various reasons concerned with achieving results as quickly as possible, but they were even more concerned that the project adhered to the bureaucratic procedures of the Indian state and local administrations. In addition to the Indo-Norwegian conflicts there were frequent clashes between the Norwegians, primarily between the technical experts on the one hand and the Board on the other. They clashed partly over the means to be employed to make the Indians move more quickly, partly over whether ultimate responsibility should in fact rest with the Indians. The Project Director at times sided with the technical experts at times with the Board. Essentially the parties disagreed over the question of how to reduce the administrative uncertainties that were inherent in such a joint project.

In concrete terms disagreements and clashes concerned particularly the issue of Indian administrative and financial sanction of project construction work, boat building activities, procurements, sales experiments, repairs of vehicles, and hiring of Indian workers. The Indians also insisted on controlling local spending of Norwegian funds. In addition the Indian central and state authorities insisted that the Norwegian experts brought to the INP must be approved and the number limited as much as possible. The Indian bureaucratic system was inherited from the Raj and primarily concerned with law and order, tax collection, and financial control and stability.⁷⁹ The system of controls that the Norwegians ran headlong into was constructed to prevent fraud and misuse of state funds rather than to promote economic development.

In many cases the Indian preoccupation with control measures led to absurdities that were seriously detrimental to the INP's activities. In one case a large amount of rotting fish was deep frozen to ensure proof that project expenditures were not fraudulent. When fish was transported to the sales agents the frozen blocks of fish were taken out and counted so often that the quality of the products was significantly reduced. The need to put out to tender repair of vehicles down to Rs 100 as well as the procurement of boxes for fish transportation would have caused serious delays if the INP management had adhered to such regulations.⁸⁰

Other conflicts resulted from perfectly legitimate Indian concerns, that were still inimical to project progress and caused grave concern on the Norwegian side. During the negotiations the Norwegians and Indians had agreed that the local costs, primarily wages for Indian laborers and building materials, should be paid out of Indian funds. The Norwegians assumed that Indian willingness to pay was a sign of

⁷⁹ H.C. Rieger, "Bureacracy and the Implementation of Economic Plans in India" in C. N. Bhalerao (ed.), *Administration, Politics and Development in India*, Bombay 1972, p. 139; interviews with M. Devidas. Menon, 29.10.75 and 18.11.75; and Gopinatha Pillai, 06.11.75, all in author's archive.

⁸⁰ Discussion of administrative issues is based on Pharo 1986 I, pp. 203-260, 384-505 and Pharo 1986 II, pp. 250-309, see also H. Pharo, "Conflict and Cooperation in the Indo-Norwegian Fisheries Project 1952-1972", pp. 319-351, in C. Dewy (ed.) *The State and the Market: Studies in Economic and Social History of the Third World*, New Delhi 1987.

their interest in completing the project. The reasoning was probably sound and proved correct once the INP had made its breakthrough. Before that time, however, Indian funding proved systematically inadequate. The Norwegians then volunteered to pay for local costs as well in order to make progress, and when such offers were declined went ahead with payments anyway. The result was a significant deterioration of the cooperative climate and strict orders from Trivandrum that such procedures would not be tolerated. Similar conflicts resulted when the Norwegians, being dissatisfied with the quality of Indian labor, tried to hire laborers on their own and at a higher wage. The State administration was adamant that it would not accept such infringements of Indian sovereignty. In addition, of course, these Norwegian interventions caused considerable labor unrest, aggravating the unrest that resulted from inadequate Indian funding and the resulting arrears in wage payments.

The problems of cooperation within the project at this level were partly due to the procedural norms and regulation of the Indian bureaucracies, partly to inadequate Indian funding and partly to a lack of qualified Indian personnel at the wages paid by the state. They were certainly also due to a lack of understanding on the part of the Norwegian technical experts that such problems were probably inevitable within development projects. They simply would not accept such kinds of limitations. After all they had come to help the Indians and could not let Indian backwardness stand in the way of their helping hands. They were in a hurry both to help the Indians and to show the home front that aid mattered and that engineering progress was possible. The Indians were concerned with procedure the Norwegians with rapid change. The Indian conceptions of correct procedure clearly would bring the project to a standstill, the Norwegian preference for bending and bypassing rules would equally bring the project to an early demise. The two conflicting approaches were incompatible in their pure forms and if rigidly adhered to would terminate the project without the goals having been reached.

The issues of conflict within the INP that were due to different conceptions of procedure. The different goal orientations of the actors involved were made even more intractable by the different economic and political contexts in India and Norway. At the all India level the INP was but one of many aid projects, and while important it did not represent a major input into the modernization of India. At the state level the problem was rather the opposite. The Norwegian side of the INP made larger investments in two fairly insignificant villages to the benefit of low caste fisherfolk than was at the disposal of the entire Community Development Program of the state. As long as the INP could show no significant progress the project constituted a problem rather than a boon. The Government of Travancore-Cochin could ill afford such preferential treatment of politically insignificant groups who also milched the project. The Norwegians at home and in India were in general – parts of the Board and some of the Directors excepted – impervious to such political considerations. Theirs was a one-dimensional approach without concern for the problems they might cause the recipients. Their concern was rather the domestic Norwegian audience.

Both parties required an early success. The Indians because they could ill afford to be seen to favor the fishing villages at such a rate, the Norwegians because helping the poor was the driving force behind popular support. Their shared concern for quick results, however, did not prompt them to join hands in solving procedural or substantive issues. The Norwegians preferred to keep pushing the Indians to grant them independent status on Indian territory, and the Indians would rather have the Norwegians leave so that they could use the Norwegian funding at their own discretion. The pressure appears to have been felt far more by the state government in Travancore-Cochin than by the Norwegians. Within a year the state government would rather take the bounty and run rather than wait for a possible breakthrough. How then did the cooperating partners get out of deadlock, how did individual and groups of actors handle the immense strain of cooperation and conflict, and to what extent did project progress facilitate cooperation within the INP?

The patterns of initiative and reaction are remarkably consistent throughout the entire 19 years, both on the Norwegian and Indian side. They were, however, more clearly and forcefully expressed during the first ten years when the fate of the mechanization project hung in the balance. The Norwegian technical experts, and on occasion the directors and more rarely the Board, reacted to what they considered willful Indian obstructionism by demanding the removal of non-cooperative Indian bureaucrats, including the Director of Fisheries in the 1950s and the Indian Project Director in the 1960s. On a few occasions, though not after the late 1950s, they also demanded that the INP be given complete independence from Indian interference, in effect that the project be a foreign actor on Indian soil. The latter demand was never seriously, if at all, considered by the Board. On the other hand the Board on a few occasions supported the demand for the removal of both high and middle ranking Indian officials, including the Director of Fisheries as Project Officer in the 1950s and the Indian Project Director in the mid 1960s. It is highly unlikely that the Indian side ever seriously considered removing Gopinatha Pillai as Project Officer, it would have been tantamount to firing him as Fisheries Director. Such a Norwegian interference in Indian affairs appears to have been unthinkable as it had ramifications beyond project affairs. On the other hand and pursuant to Norwegian threats the Indian Project Director was replaced in the mid 1960s, but that was a matter of the Indians replacing an individual rather than accepting Norwegian demands for structural changes.

As mentioned the Board at the start maintained on principle that ultimate authority within the INP must rest with the Indians, and Diderich Lund was picked to be director precisely because the other members of the Board were convinced that he would have the sufficient understanding of the recipients to do that. Lund in fact understood the dilemmas of the recipients better than the Board. He understood the problems the Director of Fisheries encountered when Lund's staff demanded different procedures and quicker decision-making processes. He had a clear understanding of the issues of sovereignty and personal

dignity that were involved. He also perfectly understood the impatience of his Norwegian staff, but thought they were unduly impatient. Lund was the perfect inside dealer and procrastinator. He had immediate access to the Board in Oslo and to the top administrators and the state government in Trivandrum. He manoeuvred as best he could, but was in the end removed because he could not deliver sufficient Indian compliance with Norwegian staff demands, and at some point the Board had come to think that what mattered was not understanding the Indians but pushing them around.

Lund and the Board during the first few years of the INP believed that cooperation on almost Norwegian terms could be achieved by cuddling up to the Indians and finding out what their needs be and meeting them. Even Lund on occasion decided that the only way to move forward rapidly was to break the rules and show what then could be achieved, as in the building of the first breakwater in the 1950s, but his main strategy was to bypass the obstacles and move to the political and top administrative level in Trivandrum and New Delhi. Most of his successors as well as the Board took the same road. They tried to bypass the obstacles by moving to a different level. It worked at times, even if the lower rung administrators paid little attention to what was decided. They were trained to know where their loyalties must be, and they certainly were not going to risk their careers by toeing to Norwegian demands. They also assumed that the Norwegians were transients. However, the bypassing technique often enough helped the project move along for the Board and the Director the accept the usefulness of the escape route and for them to think that the Indians were amenable to reason.

While the Norwegians developed their various strategies to increase Norwegian control over the INP in order to speed up construction work and facilitate fisheries and marketing experiments, Gopinatha Pillai developed his own strategies to handle the intruders into his administration. As Project Officer he was responsible for all administrative and financial decisions. In response to Norwegian bullying he on the one hand tended to stay away from the project for extended periods, thus holding up work. On the other hand he worked consistently to tighten his own control over project activities. By 1955 the long simmering conflicts broke out in the open. The Norwegian technical experts, as Lund phrased it late in the year, demanded Gopinatha's "head on a platter".⁸¹ Sverdrup had long maintained that while the Norwegians should not accept all the weaknesses of the "local administration in terms of "incompetence, considerations of prestige, corruption, bureaucracy, delays or what have you" they must accept that underdeveloped countries were in fact "characterized by such administrative features".⁸² However, strongly influenced by the technical experts he concluded by the summer of 1955 that Gopinatha Pillai had to go because he was a

⁸¹ D.H. Lund to K. Lykke, 10.11.55, Archive of the Norwegian Embassy in New Delhi (ANEND), Series 52.16/2, VIII.

⁸² H. U. Sverdrup, memorandum, "Administrasjonen i India av Indiafondets prosjekt", 12.11.54, IFA, B 20/52-56, F 3.

minor bureaucrat who is too incompetent to participate actively in the direction of project activities, and therefore, as the only way of making an impact, has started sabotaging all sensible proposals. This type of bureaucrat, I believe, is not uncommon in the Orient, and well known from the UN's technical assistance work.⁸³

The deadlock that ensued from the offensive strategies of both the Board and Gopinatha Pillai caused the problems of the INP to be brought to cabinet level discussions between Norway and India, and the Board was given the task of setting up governing structure that was to last until the INP was brought to a close in 1972. The problem of divided authority was formally solved by the establishment of a Standing Committee of nine members as the ultimate source of authority. The INP was represented by the Norwegian Director and the heads of the three sections. The Chairman of the Committee was to be a Joint Secretary in the Ministry of Agriculture, in addition the Committee included the central government Fisheries Advisers and representatives of the Kerala administration. The Board had constructed the Committee very carefully in order to bring New Delhi into the running of the INP as Central Government representatives had generally proven to be more cooperative than the locals. The Kerala members represented the various government agencies whose sanctions were needed to run the project on a daily basis. Thus the Board assumed that the interminable delays could be avoided as the responsible agencies would accept project plans and budgets as approved by the Standing Committee. In addition an Indian Assistant Project Officer was added to the INP staff to serve as facilitator for the Director in his contacts with the State administration. In reality plans and budgets were worked out in cooperation between the Norwegian INP staff and the board and then somewhat modified in the Standing Committee, where representatives of the Board also met. The Director of Fisheries remained Project Officer until 1963 when the Standing Committee was reorganized to include representatives of the other two participating states. At that time the Assistant Project Officer was promoted to Chief Fisheries Officer and finally to Indian Project Director.

As it turned out the problem of divided authority remained also within the new structure. There were several reasons for this. In the first place once New Delhi was given a stronger formal position the representatives of the Central Government became much more concerned with sovereign Indian control over the INP. Secondly the APO reported to the Project Officer, thus was subject to extreme cross pressures from the Norwegians and the Director of Fisheries respectively. Thirdly the problem of sanctions remained as the decisions still had to be sanctioned by the responsible agencies in Trivandrum before they could be implemented.⁸⁴

⁸³ P. Vennemoe, memorandum, 02.06.55, ANMFA, 26.7/12, XI.

⁸⁴ See also Pharo 1987.

Thus before settling into a relatively stable mode the INP went through another crisis period under Lund's successor as Norwegian Director, Gerhard Meidell Gerhardsen.⁸⁵ He found that the continued delays and, as he saw it, actively obstructionist policies of the Kerala authorities required the INP to be run as an agency completely independent of the State authorities. This was unacceptable to both New Delhi and the new chair of the Board, Kristian Gleditsch, who took over in 1958. Both Gleditsch and his successors as well as the majority of the Board then reverted to Sverdup's position before the creation of the Standing Committee. The Norwegians had to accept that ultimate authority rested with the sovereign recipient government. Thus they were back at base one and had to look for cooperative Indian counterparts, warts and all. Gleditsch in his confrontations with both Meidell Gerhardsen and his successors very clearly expressed this approach. He agreed with the critics who were up in arms against Krishan Chand, the Chairman of the Standing Committee, that by Norwegian standards he might appear somewhat corrupt, at times appallingly lazy and cynical to a degree. Yet, Gleditsch maintained, he could also be extremely efficient, and that of all the Indian officials he been in contact with, Krishan Chand had been the most frank. Gleditsch concluded with by an allusion to Henrik Ibsen's play Peer Gynt: "They don't come any better these days. If Krishan Chand did not exist, we would have to invent him." Gleditsch took great pains to explain that one could not expect to change the world by insisting all along on Norwegian standards.⁸⁶

The search for cooperative Indians remained a key feature of Norwegian INP politics. The first APO proved a disaster. He was unable to balance between the competing demands of Gopinatha Pillai and the more aggressive Norwegian leadership that followed after Lund's dismissal, and was promptly removed on Norwegian demand. His successor did an adequate job, probably partly because the high powered Norwegian team that followed Meidell Gerhardsen to a considerable degree had the ear of the state government and the key administrators both in New Delhi and Trivandrum. In addition by the late 1950s INP fortunes improved with the development of shrimp trawling and driftnet fishing for quality fish. As a consequence Gopinatha Pillai also for that reason looked more favorably at the project and tried to smooth its path through the bureaucratic tangles. He was also particularly interested in developing shrimp trawling and exports.

The third APO, later Chief Fisheries Project Officer and Indian Director from 1967 onwards, M. Devidas Menin, proved a resounding success. He was to the Norwegians exactly what they needed, knowing intimately the intricacies of both the state and central bureaucracies and possessing the interest in fisheries development and independence of mind to point out to the Norwegians which shortcuts could be safely taken, when they had to retreat and when they could present the state and local governments with

⁸⁵ Lund was terminated as Director partly as a concession to the technical staff partly because the Board found him far too inclined to cooperate on Indian terms.

⁸⁶ K. Gleditsch to L. Onsager, 17.7.61, IFA, B 5/61, F K. Gleditsch.

established facts. For the further growth of the INP under the three last supplementary agreements the combination of Devidas Menon within the Project and a cooperative chairman of the Standing Committee was in all probability as important as the fact that a breakthrough took place by Ashtamudi Lake and that the INP was spearheading marine research, exploratory fishing and the training of personnel for the larger and more complex fishing fleet being built.

When Gopinatha Pillai moved to New Delhi as Fisheries adviser in 1961 his successor, A.I. George was not moved by the INP's success to ease bureaucratic demands. His tenure rather represented a throwback to the early years in terms of conflict between the fisheries administration and the Project. He demanded adherence to rules and regulations of the State Fisheries administration as well as those of other state agencies. In his opinion success based on special privileges was worthless. It is likely that but for Devidas Menon's efforts new deadlocks would have developed.⁸⁷ A new crisis in fact ensued after A.I. George was appointed Indian Project Director and activities after a few years came to a virtual standstill. The Indian and Norwegian directors sat in adjoining offices and communicated by letter. The deadlock that had developed coincided with the negotiations over the Fourth Supplemental Agreement and the Norwegians made it perfectly clear that there would be no agreement unless A.I. George was removed. As the last Chairman of the Board put it while explaining the Norwegian position to him: "I do not know whether you have taken over as Director of Fisheries in Kerala."⁸⁸ A.I. George's exit paved the way for Devidas Menon's return to the INP as Project Director.

As was the case some ten years earlier the Indians retreated when the future of the Project hung in the balance. We may ask why such dramatic means were required to engineer adjustment in the governing structure or the replacement of obviously inadequate Indian administrators. Clearly this was not due to a lack of understanding that rigid bureaucracies and inflexible bureaucrats were not suited to promote economic development. The Minister of Agriculture, C.D. Deshmukh expressed himself forcefully in this regard at an all-India fisheries conference in Madras in 1956. He encouraged the states to consider their fisheries departments as "development departments rather than as revenue departments".⁸⁹ He was perfectly aware that projects that were run according to the Indian administration book would be unwieldy as entrepreneurs. Still the INP was for long periods subjected to such extremely adverse administrative conditions. We may assume that with regard to international development projects the primary explanations is to be found in the need to safeguard national sovereignty. When the INP was launched critics in the Lok Sabha were in fact concerned with national sovereignty and national honor. Secondly aid

⁸⁷ The large number of letters by A.I. George in INP archives indicate that he had at best only limited interest in economic or technological innovation. This was confirmed when I interviewed him, 12.11.75.

⁸⁸ R. Bruu to A.I. George, 01.06.66, AINP, B 2/66, F 008.5; for an extended analysis, *Hjelp til selvhjelp*, II, pp. 290-307.

⁸⁹ Ministry of Food and Agriculture, *All-India Fisheries Conference Madras 1956*, New Delhi 1957, p. 27.

projects cannot but be a nuisance given the fact that the expatriate experts have come to solve specific problems and tend to regard the recipients rule book as obstacles to their achieving their goals. The recipient administrators have to keep a number of other considerations in mind at the same time, not the least their own future career which could easily be harmed rather than helped by a strong identification with a foreign run affair. Devidas Menon's role may illustrate this mechanism. He was passed over for promotion in the Kerala fisheries administration until he became Project Director. His willingness to bend rules and give the Norwegians sound advice may also be explained by the likelihood that his career prospects could better be advanced through the INP and the Norwegians.

The Norwegians, in their own opinion, both in the Second and the subsequent supplementary agreements actually achieved a substantially greater degree of independence from normal bureaucratic practice than most other aid projects in India. They still had to maneuver in a fairly narrow space of divided authority and between Indian demands for control and Norwegian demands for flexibility. Their ability to appeal over the heads of their Indian counterparts to the top political and administrative level in New Delhi and Trivandrum enabled them in the long run to achieve the necessary degree of flexibility, but at considerable cost to both themselves and the Indians. When the project was wrapped up and the structure of the Indian run successor project was constructed, the committee setting it up concluded that a development project run by Indians only would need far greater freedom of action than would be the case for an organization integrated in the Indian bureaucracy. With the INP a greater degree of bureaucratic uncertainty was possible precisely because the foreigners could pull other levers than those available to an ordinary Indian bureaucrat. Devidas Menon was essential for the relatively smooth running of the INP during its final phase, but to perform his services he was at the same time dependent upon the ability of the Norwegians to take forceful action.