

# The Education of Children from Fisher Communities: Lessons from Indonesia, India and Brazil

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## The Education of Children from Fisher Communities: Lessons from Indonesia, India and Brazil

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### 1. Introduction

The need for 'quality schooling for all' is a goal almost all countries and international organizations have accepted. However, many developing and poorer countries struggle to reach this goal. The difficulties are mainly with respect to specific social groups in different parts of the world. The Scheduled Castes (SCs) and Scheduled Tribes (STs) are two such groups in India. In general, it is the poor and marginalized who face severe educational challenges but there are also a few occupational groups which face these (in addition to social distinction or marginalization). There is a need for more focused and additional efforts to ensure that children from these groups also opt for and benefit from a good quality of education.

The people who are involved in marine fishery for generations are one such group that encounters various constraints in the completion of school education. We highlight some of these based on case-studies carried out by us and others in different parts of the world and outline briefly a possible

strategy to ensure that children from the marine fishery communities also get the benefits of schooling.

## **2. The Transition of traditional occupations**

Consider the historical evolution of agriculture. First, there was the commercialization of agriculture with the use of more capital and the consequent displacement of labour. This has happened in the developed or industrialized world and led to the replacement of many smaller farms into a few large ones. Even in the developing countries, where small peasantry continues to persist, one observes a movement of people away from agriculture as an occupation. This is evident from the percentage of people involved in agriculture versus that in industrial/service sectors. The previous generations of those who currently work in industrial and service jobs were mostly involved in agriculture. It is schooling that enabled the transition. This was not problematic since these people, for genuine reasons, wanted to move out of agriculture, and the acquisition of a general education facilitated this transition. Moreover, the transition was considered part of social and economic (upward) mobility. This has been the case with most people involved in different kinds of artisanal occupations too. The commercialization and capitalization of their production processes, and the commensurate decline in the use of labour encouraged the younger generations to acquire education and take up industrial or service sector jobs in the formal and informal sectors. Marine fishery as a traditional occupation has certain fundamental differences when compared to other occupations such as farming or artisanal trades. We discuss some of these in the following section.

## **3. Marine fishery as an occupation**

Though marine fishery (like agriculture) has also absorbed more capital, become mechanized and selectively large-scale, such a transformation is either slow or fraught with

challenges. Even in the developed European countries, the share of the workforce engaged in big fishing vessels is now small and most of them operate in smaller ones which have only two to three workers per unit<sup>1</sup>. The rapid increase in fishing capacity and the overfishing because of it, resulted in large-scale fishing becoming uneconomical and led to a gradual return to the smaller scale of operations. Hence, there is a continued persistence of labour-intensive, small-scale fishery.

The one reason for people to move out of agriculture is the declining reward (in relative terms) from the occupation. The lower income-elasticity of farm products (especially food-grains) may reduce the relative prices of these products over time. In other words, the relative return from agriculture would decline in comparison with that from industrial/service sectors. Though there could be a decline in the return from fishery too as an occupation, the income elasticity of it is higher compared to farm products. The demand for fish has increased substantially as a result of income growth. Fish is also now considered as healthier food compared to (red) meat, which has had a strong influence on its demand. On the other hand, the decline in the income per vessel can be attributed to the decline in the catch (due to technical and ecological factors) and increase in the cost of other inputs, like fuel. However, this non-viability due to the reduced catch is more crucial for larger or highly mechanized vessels. So in effect, small-scale fishery is likely to persist and the employment in this occupation may not decline drastically. Even if sections of people move out of this occupation (as they acquire a certain level of prosperity), others (from the poorer sections or migrants) may take their place. However, this brings to the fore the problems of skill development and education of fishers and their children. We discuss these in the following section.

#### **4. Schooling of children from fishing communities**

Traditionally, fishing communities all over the world were marginalized. They were not part of the mainstream or the elites who were the first to receive the benefits of education. Poverty and other kinds of vulnerabilities have worked against the schooling of children from fishing communities. Even when efforts were being made to spread schooling to all sections of the populations in different countries of the world, the fishing population lags behind in utilizing these opportunities. There is a perception, and rightly so, that if boys do not acquire the capacity to participate in marine fishery at an early age, they would never be able to do so. So these boys start helping their parents from an early age. This naturally comes in way of their attending school. Some important skills required in small-scale fishery, like navigating the boat in rough seas, hoisting sails, casting the net and working with small engines, are best imbibed by a process of 'learning by doing' under the tutorship of the older fishermen. Girls were also involved in marketing or processing fish or compelled to spend a greater part of their time taking care of household chores while their mothers participate in these fishery-related activities. These factors have led to the educational under-achievement of children from fishing communities.

Given that these communities are involved in this occupation for generations, there could be certain cultural traits that enable them to excel in this occupation and, at the same time, these may probably work against their transition to other occupations easily. The combined effect of the under-achievements in education and the specificities of fishery-related skills result in a certain stickiness to, or slow mobility out of this profession. The growth in demand for fish can strengthen this. There are indications of such stickiness even in the developed world, even though one can see newer workers (like migrants) entering this profession whereas a

small section of people from the traditional fisher families moves out.

It is in this context that we undertake a preliminary assessment of the educational situation of children from fishing families in different parts of the developing world. The University Practice Connect initiative of the Azim Premji University has already published two documents on this topic – one on an experiment to provide appropriate education to fishers who have dropped out of school in Belem in Brazil and another that has looked at the present-day challenges faced by fishery schools in Kerala (India). We draw generalizable lessons from these two experiences and also from other published studies on the education of children from fisher communities from other parts of the developing world (including Uganda, Africa). In addition, a short-period field-work was conducted in a few fishing villages in the Manado area of Indonesia (in November 2018), which also informs this note. Manado is in the northern part of Sulawesi Island, which is geographically close to the southern part of the Philippines.



## 5. The Experience in Manado: Some observations

There is some merit in looking at the experience of Indonesia compared to other parts of the developing world, including

India, Africa and Latin America because though Indonesia is a developing country, it has improved the access to schooling for most of its population. There have been efforts in this direction from the 1960s onwards, which have ensured that almost all children in the country complete primary education. This is not the case in India or most parts of Africa. Even in Latin American countries like Brazil, fishers in areas such as Amazonia are part of marginalized groups and hence, their access to or their use of schooling was fraught with hurdles until very recently. Fishers in Indonesia do not seem to be a marginalized social group in the country. This is a characteristic of the island nations. Fishers are well-integrated into the mainstream society through Islam or Christianity (depending on the dominant religion in the locality)<sup>2</sup>. Hence, it would be interesting to look at the challenges faced in the schooling of children from fishing communities in Indonesia, as they may have some commonalities with the situation in other parts of the developing world.

### **5.1 Fishing operations**

Marine fishery in this part of Indonesia is small-scale in nature, using small boats and a variety of gear. Each of these boats is owned and operated by one or more workers. The fish catch (primarily tuna) is sold mainly in the local market because to sell in the national market, fish would have to be transported by sea and given that fish is available on most of the other major islands of Indonesia, this is not necessary. The export of fish to neighbouring countries from this area is also minimal or non-existent.

Fishers who we interviewed noted an adequate demand for their catch in the local market. Fish is an important part of the local diet and with the growth of income, the demand has increased. Hence, fishers do not perceive any relative decline in income from their occupation. Though there is immigration into different Indonesian islands from other parts (especially, Java), fishing in this locality is not dependent

on migrant workers. This would mean that families who have been fishing in this area for generations continue to be active in this occupation. There is also not that much migration from this region. Hence, there are indications of a labour stickiness in the marine fishery of this region. With the family size or fertility rate coming down, families do not have the option of sending some children for education and others for fishing<sup>3</sup>. As noted earlier, the fishing population is not socially distinct from the mainstream community. Even if there were such distinctions in the past, the conversion to Christianity first (due to the influence of colonial traders) and later to Islam (due to the influence of national governments) have blurred any such distinctions which existed in the past.

## **5.2 Schooling of children from fishing families**

We visited and interacted with the teachers in three schools in one fishing village. Most of the teachers acknowledge the unique challenges faced by children from fishing communities. However, they did not report dropping out of children even in the secondary grades due to their participation in fishing activities. This seems to be the case in other islands of Indonesia too<sup>4</sup> and could be the result of the policies and programs that are in place in Indonesia for the last three to four decades to ensure basic schooling for all. These include the availability of schools with reasonable facilities in all habitations including the fishing villages and also the support provided to parents for the education of their children.

Though dropping out of children from school is not an issue, irregular attendance is a common problem among boys from the fishing communities. This was mentioned by the teachers in all the schools that we visited in Manado. Many parents encourage their sons to take part in fishing on certain days. Boys may accompany their fathers or older relatives to the sea during holidays. Such participation in work during school days or

even during holidays can affect their learning habits and performance in schools, which is true with respect to Manado.

There was an attempt to introduce fishing as a subject in vocational secondary schools. In a school that we visited, they had dropped the subject after a few years because of a lack of strong interest/demand on the part of children from the fishing communities. These students may not see it as a school subject that adds value to their actual work in the sea. The teachers in schools may also not have practical experience in fishing, which is understandable since they have pursued higher education which requires a withdrawal from the occupation. Moreover, the fishery syllabus is oriented to modern industrial fishing. The artisanal or small-scale fishing that is prevalent in the area can be carried out without any modern scientific or technical knowledge. Small-scale fishery is based on local ecological knowledge and technologies appropriate for the local eco-system. Hence, parents and older relatives are the best teachers for youngsters who want to take up this occupation.

We have seen this trend in other places too. The attempts to introduce fishing as an additional subject in (junior) secondary schools in Kerala (India) have not been effective in creating trained fishermen. This is also true when fishing was taught to adults who had dropped out of school from fishing communities in Belem (Brazil). There is, thus, a mismatch between the practical and local, specific needs of small-scale fishery on the one hand, and the qualifications of teachers, and the possible content of fishery as a subject in formal schools, on the other.

Many boys take up fishing as an occupation after formally completing secondary school education in these villages of Manado. The percentage of girls going for one or other kind of higher education is significantly higher than that of boys. Fishermen in Manado acknowledge that the intellectual/educational achievements of their womenfolk are



higher compared to their own. To a question of whether these girls are reluctant to marry less educated boys from the area, the answer was negative<sup>5</sup>. This may be so since the Indonesian society is generally comfortable with women engaged in activities that require education marrying men who are not as educated or engaged in jobs requiring education. We have seen women working in the service sector who are married to men who are small farmers or unemployed (again demonstrating the lower educational achievements of the latter) in parts of Indonesia. Social issues such as the excessive consumption of alcohol, which are not uncommon in such communities in other developing countries, are prevalent among men in these fishing villages too. One fisherman has noted that they consider alcohol as the 'fuel' or energy for their work.<sup>6</sup>

In addition with this situation in Manado, we look at the challenges encountered by the education of children from fishing communities in other developing countries and the developed world, to draw some general lessons on schooling for these communities. This is attempted in the following section.

## **6. The Situation in other parts of the developing world**

The current situation of the schools which were set-up to educate the children from fishing families in Kerala (south-western state of India) is described here. These residential schools started from the 1960s onwards had two objectives. First, to provide a conducive environment for the schooling of these children as their home environment was not adequately enabling or supportive. Secondly, the idea was to introduce 'fishery' as a subject in these schools so as to create 'educated fishermen'. These schools were reasonably successful regarding the first objective. This is because, in the early decades, a set of children from fisher communities could excel through higher education after passing out of these schools and as the size of the fisher families was big, they could

spare a few children for education without affecting their livelihood in the fishery. The children who take up fishing as an occupation, start participating in this activity early (at eight to nine years of age) so they either drop out or have little interest in schooling. However, the goal of teaching 'fishery' as a subject in junior and higher secondary schools is yet to be realized. As noted earlier, the lack of direct experience of the teachers who come from non-fisher communities and the 'theoretical' nature of teaching are the major constraints in this regard.

There are studies on the status of education of students from the fishing communities in Brazil (more specifically from the Amazonian regions like Belem). Vieira et al (2013)<sup>7</sup> could see the connection between fishery as an occupation and the school-life of people from these communities. It is noted that participation in fishing for children starts at 10 (+/- 3.3) years as they accompany relatives as practical mentors. In a typical fishing village, around half of the respondents of the study have participated in fishery activities between four and six days per week, dedicating four to eight hours a day to the work because of which they are irregular in school. Hence, most children from these communities took an extra two years to reach grade VIII in school at the time of this research. The study also elucidates that (p.7) 'the skill of the young fishers and their abilities to use different types of fishing equipment is not related directly to their age, but the socio-environmental conditions of the group and the area in which they work'. The other study in Belem that looked at an attempt to teach fishing as a vocational subject to grown-up children from the fisher communities who have dropped out of mainstream schooling, noted a lack of connection between what is taught in the vocational school and the livelihood of these people.

The studies in Africa too, note a similar picture. Westaway et al (2009)<sup>8</sup> analyze the experience of formal schooling in three Ugandan fishing villages. They see low educational attainment

among children from fishing communities with only very few completing primary school. The offer of paid work, peer influence and the burden of household work are important reasons for the non-completion of primary education. In fact, in this area, the government has taken certain pro-active steps to see that children attend schools rather than take up paid work. Child labour has been made illegal and fish landing sites are patrolled to check for child labour. However, the legislation allows 'using' children below 14 years after school-hours and during weekends.

## **7. The situation in developed countries**

A report prepared for the European Commission<sup>9</sup>, though its focus is on the employment in fisheries, gives information on the education of workers. Parts of the data on the employment situation is also relevant to our discussion here. The number of fishermen in developed countries is decreasing at a rate of around 4%. This can be due to a number of factors as noted in the report (p. 69): 'The economic situation of the fishing fleets and falling incomes, decommissioning of vessels and decreasing employment opportunities, declining status of the profession and the separation from social life on shore, which is not an attractive prospect when other job opportunities are available'. About one-third of the workers are women and they are mostly in the fish-processing industry. Foreign workers are not more than 10% if we take different EU states. Nearly half of the total workers are engaged in coastal fisheries. This percentage is higher (nearly 70%) in relatively less in the affluent southern countries of Europe. The report also notes (p. 67) that 'the nature of fishing sector is relatively traditional, with few larger companies owning more than 1-2 vessels.' And that, 'only a relatively small number of fishermen work on large vessels with crews of over 20 men'. Nearly 30% of the fishermen are vessel owners, which again indicates the small-scale or owner-cum-worker character of fishery even in the developed world. For the medium size and

smaller vessels, nearly 60% of the workers are 'deckhands' and they 'carry-out mostly unskilled work, for which physical health and ability to work under harsh conditions at sea' are important. For these people too, it is the early exposure to fishing and not a higher level of education that matters for their work. However, most of the European states have certification courses and vocational schools catering to the various categories of workers who are employed in fisheries. These are offered to those who have completed a requisite number of years of general education. Acquiring required skills is considered mandatory for getting a license to carry out fishing and this would determine the demand for such education.

### **7.1 Lessons from the developed world for poorer countries**

The lessons from the experience of the European countries are useful. First, there is a continuation of people in the occupation of fishery which may require certain abilities but not necessarily formal education. Even in the developed world, most people involved in fishing are not in the capital- and knowledge-intensive industry. Small-scale fishery continues to be attractive in the developed world, even as it faces challenges due to other factors. Though sections of people from traditional fishing communities may move out of fishery<sup>10</sup>, others may get into this occupation in developed countries. However, these countries could assure that the participation in this occupation has not prevented youngsters from acquiring basic schooling and could regulate it so that entry to this activity requires the acquisition of certain skills through certification/vocational courses. Such entry-regulation or licensing helps to ensure that children from fisher families complete basic school education.

However, developing countries may be facing certain additional challenges in this regard. The overall economic backwardness and the absence of viable social security for households may necessitate the income from child labour for many families.

While the developed countries could ensure a certain level of welfare even to those who have not completed formal school education, because of the continuation of fishing communities in this activity for generations, the enforcement of a licensing (after ensuring the acquisition of basic education or skills) would be difficult in the developing world. These create additional barriers in the education of children from fishing communities.

## **8. Are there other occupations like marine fishery?**

Are there other occupations like fishery which work against the formal schooling of children? There are livelihood activities like peasant agriculture and domestic work which prevent children from completing schooling, but these lose their economic attractiveness as part of the economic development of a society, and people may discourage their children from participating in such occupations as a result of income growth. This may happen even without the enforcement of a legal ban on child-labour. So, rephrasing the question: Are there other occupations like fishery which continue to be economically attractive or viable as part of economic development, but which work against the completion of schooling of children? The preparation to participate in certain sports and athletics may have to start at an early age and this may not enable the acquisition of proficiency in all subjects taught as part of the formal school education. For example, gymnastics may require intense training from an early age. In such cases, one can devise schooling where the achievements in sports can also be part of the competencies considered integral to schooling. The learning of the art form, Kathakali of Kerala requires special training from an early age and it warrants a different kind of schooling that combines formal education and this training<sup>11</sup>. However, in all these cases, 'special' schooling can only be provided to those children who demonstrate an aptitude for such activity. Such a

selection may not be feasible in the case of children from fishing communities. This may be a consideration while thinking about the appropriate nature of schooling for the children from these communities.

## **9. Schooling for the children of fishing communities – Debates**

These debates could be normative or those based on a perspective of rights but here too, there can be multiple views. The International Labour Organization (ILO) and others have taken a position against child labour. There may be arguments for the provision of common schooling for all children (disregarding their social background). This may be needed to avoid a situation where the life choices of children belonging to any group are restricted due to the nature of schooling given to them. There could be a normative argument to provide an appropriate education to the children of social groups, such as the fishers, with the intention of protecting their culture (including the traditional practices related to their livelihoods<sup>12</sup>.)

Though these normative positions are important while considering the underlying concerns, practical needs and reality may determine the actual situation. Several constraints come in the way of effecting desirable changes. Child labour may be used in certain situations irrespective of whether there is a legal ban or not. In the case of India, the use of children's work by parents in family occupations or at home (in household work) would not come under the provisions of the child-labour prohibition act. There can be legal or constitutional provisions for mandatory schooling (like the Right to Education in India), but it is not easy for many countries to enforce these properly<sup>13</sup>. Even if these are enforced, it may only help enrollment in schools. It cannot ensure attendance and enhancement of learning achievements.

All these practical (as against normative) considerations play a role in determining the policies and programs for the provision of schooling to the children from the fisher communities. Given the stickiness (less mobility out of this occupation) even in the developed world, there may be a need for providing schooling which does not force them to get out of fishery. We outline briefly one such model in the following section.

## **10. Appropriate education for children of fishing communities**

It may be desirable to facilitate the completion of secondary schooling by allowing participation in fishery after school hours or during weekends. Alternatively, school timings may have to be adjusted with the timings of fishing to allow both activities. This may lead to a certain degree of irregular attendance which in turn may have a negative impact on the learning achievements, especially when these are measured using the conventional approach based on standardized tests in school subjects. However, there could be a reform of this measurement to evaluate the competency acquired in the occupation of fishery, as part of a holistic assessment of learning outcomes. Scientific aspects of oceans, climate and marine fishery can be included as a subject in the school education<sup>14</sup>. Topics such as engine maintenance, use of GPS, principles of sailing, signalling systems, scuba diving, navigation map reading, etc can be included. The proven competency in fishery-related activities can be recognized for admission to higher vocational/technical education in related fields. This may enable the higher education of a sub-set of children from fisher communities who want to pursue fishing. Others who, for whatever reason, do not want to participate in fishery during the period of schooling have the option of completing general schooling and can then pursue higher education in other areas. Hence, the adoption of this model would not narrow down the educational choices of these

children. On the other hand, it will support those who want to continue with the occupation of their parents.

However, the implementation of such a model would require the availability of reasonable quality schools closer to the habitations of the fishing communities and the socio-economic conditions of these children have to be conducive for their learning. In the absence of these two enabling conditions, either the children may not go to school or they have to be put into residential schools. The residential school option would prevent their exposure to the vocation of their parents. In the final analysis, it all comes down to the need for significant changes in the overall human development of fishing communities in the developing countries. The physical marginalisation and the lack of rights to land for housing are the major stumbling blocks in the improvement of the HDI and associated conditions needed for promoting education.

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