

## Research Article

### Fisheries Sector and Development of Maldives: Can Vocational and Technical Education Help?

[Gazi Mahabubul Alam](#), [Aishath Farhath](#), [Abdul Jalil Othman](#) and [Abul Quasem Al-Amin](#)

#### ABSTRACT

Global experience confirms that 'family business concept' was the domain in the establishment of fisheries sector. Apprenticeship of family inheritance was only the training provision available for the fishermen earlier. While fishermen used to receive a little amount of training through family apprenticeship, light of education to become a qualified citizen for modern world was unreachable to them. Things have incredibly or marginally been changed in a few countries where public policy took necessary parameters in order to institutionalize this sector aligning with the long term developmental vision and mission of the state. However, most of the countries still follow the orthodox model since professionals working with this sector are less capable to put forward their voices in the elite podium where public policy of a country is designed and constitutionalized. Maldives is country where more than 80% of the population are directly and indirectly or by hobby are involved with the fisheries sector providing a major local contribution towards Gross Domestic Product (GDP). Despite this contribution, the sector experiences significant amount of shortfalls. The purpose of this study is to map and identify those shortfalls in order to offer an elucidation.

#### How to cite this article:

Gazi Mahabubul Alam, Aishath Farhath, Abdul Jalil Othman and Abul Quasem Al-Amin, 2013. Fisheries Sector and Development of Maldives: Can Vocational and Technical Education Help?. *Asian Journal of Animal and Veterinary Advances*, 8: 82-90.

DOI: [10.3923/ajava.2013.82.90](https://doi.org/10.3923/ajava.2013.82.90)

URL: <https://scialert.net/abstract/?doi=ajava.2013.82.90>

#### INTRODUCTION

Global pattern indicates that heavy industries always provide more income to the employees and to the countries in general compared to livestock, fisheries and agriculture sectors. Consequently, developed countries always concentrate on heavy and technology based industries ([ADB, 2007](#)). This either allows or forces the **developing countries** to work with

the sectors that are left by the industrialised countries. Realising this realities and facts, many **developing countries** are mainly involved in agriculture, livestock and small manufacturing industries. This helps the countries to have some kind of employment for their people with a very indispensable income to sustain ([ADB, 2012](#)). Some of the **developing countries** are also trying to explore the avenues of tourism using their nature beauty. However, life remains in hardship in developing countries with continuous indentation since global competition in living standards; increasing need to access the products manufactured by industrialised countries and some other factors of globalisation help the industrialised countries to be placed in better position ([Alam, 2009](#)). While in **developing countries**, social elites can try to cope up their life with modern days, majority people who involved with the slower industries are just breathing to die ([Alam et al., 2012](#)).

Maldives is a country where huge economic disparities exist amongst social elites and common people ([Adam, 2006](#)). The country's economy is mainly depended on fisheries sector with a good supplementary from tourism sector. However, a bulk amount of income from tourism sector does not stay in the country since the ownership of the sector is mainly controlled by foreign counterparts ([Alam et al., 2012](#)). Even though, fisheries sector contributes a greater income and huge employment, the marginal fishermen are not benefited because most of these incomes are used by the social elites and business personnel through a diplomatic share to the income ([Alam et al., 2012](#)). Apparently data show that social elites and business personnel also significantly contribute towards GDP . This is theoretically true but virtually they are just only dominant shareholders of the income as sleeping partners ([Alam et al., 2012](#)). So it is mainly the income from fisheries and tourism sectors that are shared amongst employees, politicians, civil servants and social elites. It is also proven that the productivity of these fishermen would be increased if they would have received better training ([Birdsall, 1993](#); [Alam et al., 2012](#)). However, education and training would definitely help them to understand their rights, their participation in the society and with the work place ([Castely, 2005](#)). Moreover, this will help them to understand how to balance between income and expenditure in order to have a better life in the society and to provide a better prospect for next generation ([Chen, 2010](#)). This short communication research letter will explore either the Vocational and Technical Education (VET) would help the sector to grow more institutionally with a better assurance of the rights of fishermen and their participation in social and modern life.

## **GLOBAL CIRCUMSTANCE AND RESEARCH ISSUE**

Fisheries, livestock and agriculture sectors always provide slower economic growth compared to industrializing and manufacturing sectors ([DNP, 2011](#)). Consequently, developed countries are more attentive in establishing and fostering the sectors that can offer faster economic gain ([Alam, 2009](#)). This situation forces the developing and underdeveloped countries to work in an area that is unattended by the developed countries ([Alam et al., 2009](#)). Slow income generation of the sectors related to livestock and agriculture is a man-made concept rather a natural one ([Inception Report, 2007](#)). In a diplomatic way, developed countries have been able to give an idea to the globe that skills, training and education needed for the sectors related to livestock and agriculture are less worthy compared to the sectors related to technology, manufacturing and other industries ([Kaplan and Celik, 2008](#)). However, the pragmatic truth is that the fulfilment of the demand of the basic and fundamental needs of human always depends on the products that are produced through the sectors related to agriculture and livestock. It is thus a fair assumption that globally, customers are willing to pay more for the fashionable items compared to the basic and fundamental goods and rights ([Middlehurst and Woodfield, 2004](#)). On the other hand, argument can be made saying that within the global demand and supply theory, products procured by the sectors related to livestock and agriculture are more readily available than the products manufactured through other industries. If this is the fact; while there would be a crisis of products procured by the sectors related to livestock and agriculture, customer would pay more for these products by sacrificing and lowering the budgets for the products manufactured through other industries. However, making crisis in order to receive a global proper value and wages for the products produced by the sectors related to livestock and agriculture is not humanitarially accepted attitude ([Rabby et al., 2011a](#); [Alam et al., 2012](#)). A few scholars advocate that increasing the global price for the products produced by sectors related to livestock and agriculture would bring an inclusive disaster worldwide. However, the fact is not innocently true because providing right values to those products will provide economic empowerment to the producing countries which may help to reduce the economic disparities exist amongst countries based on industrialised economy and agro and livestock economy.

While international communities accepts the holistic view for marketing and demand and supply concept for the products produced by the sectors related to livestock and agriculture, the products manufactured by the manufacturing and technology based industries enjoy the concept of market driven theory. Making purported up-gradation and new stylish products

along with ingeniously marketing strategy, sectors related to industrialising and manufacturing earn adequate amount providing a larger economic growth to the country.

In exchange of a price of millions of products produced through hard labour and expending a notably amount of time by the sector related to livestock and agriculture, a small piece of product manufactured by heavy and technology based industry with investing small amount of time can always not be purchased. This is how in the global competition, a weaker country becomes the weakest or heavily weaker day by day ([Alam et al., 2012](#); [Rabby et al., 2011b](#)).

The economy of a developing country also follows the global pattern where heavy industries and other sectors enjoy more economic liberty but the sectors related to livestock and agriculture pass hardship sacrificing their blood ([Nargis and Hossain, 2006](#)). While developed countries explore the avenues to discover a way to have competitive low-priced labour countries to supply their daily needs, countries also ensure a balance income amongst different professionals ([Scoones, 1998](#)). It is thus no wonder to see that in spite of a proper balancing taxation system in place of a developed country, the earning of a plumber and medical professional are almost the same. It is now time to find a way to provide a global and local benefit for those who are involved with the sectors related to livestock and agriculture ([Alam et al., 2009](#)). Unless and until, this is fulfilled, the works for global development undertaken the UN and other voluntary bodies are just a shouting with bubble but not the real pragmatic.

## **RESEARCH DESIGN**

This is short communication research paper which aims at generating a discourse through the analysis of secondary data and intellectual debates. In order of obtain information, a number of official web sites of Maldives government, scholarly sites hosted by different organisation and blog sites are browsed. Moreover, in order to understand economic development, a number of works of conducted UN bodies (i.e., UNDP, UNICEF and UNESCO) are used. Moreover, data received through a fieldwork of two weeks also supplements. Many of the arguments are also made through the analysis of the data received through the fieldwork.

Qualitative methods were used that allowed interviewees to express their views in a free and personal way, giving as much prominence as possible to their thematic associations.

Semi-structured interviews by qualitative approach were held with:

- Key personnel at the Ministry of Education in Maldives
- Personnel having work experiences with the regulatory bodies of fisheries sector
- Key personnel at the schools located in different Islands
- Teachers at the schools located in different Islands
- Social elites with reputations as educators, politics and social workers
- Fishermen
- Family members of fishermen
- Students

Other data was observation and document review. The study will also concentrate on the use of data collected from document review and observation.

## **HISTORICAL TREND IN FISHING IN MALDIVES**

Fishing in Maldives is as old as starting point of living of inhabitants in the Islands of Maldives. With the starting of living, people were involved in fishing as this was merely a food item to be consumed in an Island life ([UNDP, 2009](#)). Latter, fish was the main supply of food with a little nutritious supplement from other sources. With the initial stage, people did not use any kind of tools, weapons and boats for the purpose of fishing. Walking towards the seashore, people caught the fishes which they used for their daily needs of food. Assumption and public discussion assert that during the British colonisation, local people of Islands are forced to be involved in fishing by the ruling elites for the commercial benefits. Fishermen involved in fishing took life risk for fishing for negligence amount of wages to be paid ([World Bank, 2002](#)). That was the time; fisheries sector in Maldives was opened as a sector for commercial benefit through export. However, local people and fishermen were not benefited financially except to add some additional items to their daily meals. With the help of “State Import and Export Process” undertaken by British chastisement while local Maldivians were able to have a very little amount of vegetables and rice alongside main meal of fish, British governors and administrators lived mainly in Gan<sup>1</sup> enjoy a life that ensures a contemporary global modern life in Maldives. It is thus no wonder to see Gan as an ancient development area.

British colonial development was the initial stage of the development of fishing and this informal industry in Maldives although it did not benefit the local Maldivian hugely except giving them some skills, knowledge and knowing the potential of it. The ideas of capitalism

and cultivating the business of catalyst have always been the part of the fisheries sector of Maldives. Fisheries sector of Maldives is yet to be exempted from this influence.

Rearing of fish and cultivation of fish are not the part of business of fisheries sector in Maldives. Fishes are 'god gifted' assets to Maldives. So fishing, fish preservation, making fish products and marketing of them are the core activities of fisheries sector in Maldives.

## **CURRENT SITUATION IN FISHING IN MALDIVES**

Initially fishing was limited to seashore walking; latter small boats were used for reef- fishing with some basic fishing tools. With a gradual expansion of the sector and its introduction and expansion towards latest technology and equipment, fishing in deep sea has become a finger tips to Maldivian fishermen. Due to lack of facilities, earlier fishermen were unable to travel to deep sea and spend days in the sea for fishing. Things have changed dramatically.

Fisheries sector is technologically well equipped especially fishing vessel. However, to hunt fishes, fishermen in Maldives still love to follow their traditional methods as they see these are more successful and purposeful than globally accepted methods. However, local methods of fishing are also not free from a number of errors, constraints and faults.

The main problems and constraints with the Maldivian fisheries sector are not technical or technological. The problems and constraints are mainly handling with the social disparity and making economic balancing. However, there are still significant rooms for the development in area technical or technological of fisheries sector. Before making an effort to understand and to offer the resolution, the following section maps the problems and constraints experiencing within the sector.

## **PROBLEMS AND CONSTRAINTS EXPERIENCING WITHIN THE SECTOR**

**Informal employment and Social recognition:** In order to join with employment of fisheries sector, no formal education and training are required. So this profession is not socially valued much. Majority portion of the professionals involved with this sector may be technically sound to undertake the job but suffer with an identity crisis. This kind of identity crisis always hinders them to be a responsible citizen for the society.

Another picture is that since fisheries sector provides a better income, many people with education having a full time job with the public sector work with the fisheries sector in parallel as capitalist to accelerate their income. This kind of part time involvement not only

creates problem to the place where they work full time, but also creates huge cumbersome in the fisheries sector as their cunning attitude always deprives the rights of uneducated fishermen.

**Capitalist:** This is an informal sector running without a control from the government. In order to run as such sector, huge investment is required. Uneducated fishermen neither have that much of fund to be invested nor have the adequate knowledge to manage the fund. With this scope, opportunist capitalists are running the business paying a very hand to mouth wage to the fishermen.

**Wages and obligation:** Since no formal education, training and skills are needed to join with the labour forces. Many join with the sector without understanding the reality of social and decent citizenship. Most of the fishermen are trained by themselves after engaging with the jobs. So an informal workplace learning and apprenticeship have been helping them to learn how to implement the job but this does not necessarily provide understanding on health and safety issues, labour rights, work environment and other necessary issues required for work, daily and social life ([MOPND, 2006a](#)).

Employment of this sector is purely informal. There is no obligation to sign a contract. No minimum wages are determined. Moreover, within the current scope, there is no way of evaluating novice, semi-skilled, skilled and professional fishermen. So no salary packages are determined focusing on knowledge and skills parameter.

Since there is no formal contract made, thus both the employers and employees create unstable situations to take the advantages when they can. It is observed that after earning an amount needed to survive for few days, many fishermen stop going to job. This kind of unemployed staying home also creates significant problem in family and conjugal life resulting multiple marriage or illegal affaires.

**Climate change and impacts on environment:** Most of the people involved with the sector are not well aware of **climate change** and its impact on environment. A number of stages and activities carried out by this sector have direct impact on **climate change**. Well aware and educated working force may help to reduce the problems of **climate change** and its impact on environment. Ignorance would bring huge danger and would cost a lot in future ([Al-Amin et al., 2012](#)).

**Lack of knowledge on technical issues:** Most of the work force lack knowledge in a number of technical areas such as fish production cycle, right fishing season, right fishing areas, right fishes to catch and maintenance of fishing vessel and sea life. Without having as such knowledge, harvesting the crops of god-gifted asset will make the nation hopeless while nothing would be left to harvest in future.

## **VET FOR FURTHER DEVELOPMENT AND SOLVING THE CONSTRAINTS**

Discussion made in the earlier section confirms that many of them are human-made social problems which are controlled and guided by the culture and tradition. Changing the culture and tradition is not a simple task. However, no better tools than awareness are found to bring changes in culture and social constraints. It is well evident that education makes the community well aware about the self-ownership, self-rightness. However, evidence also confirms that education as commodity may also provide an understanding on self-ownership, awareness on self-rights and other issues needed for social survival without assuring a knowledge driven and thirstiness individual but supplying a cunning one to the community ([MOE, 2007](#)). Surely, a community needs its massive people to be educated and trained for implementing the assigned task properly in order to construct the society ([MOE, 2007](#)). Moreover, they also need to understand the meaning of self-ownership, awareness on self-rights and other issues needed for social survival without harming others and the society as a whole ([MOE, 2010](#)). Of course, only a little portion of the population of a society needs to be highly and exclusively knowledge driven. However, in any cost, society does want to have a cunning individual ([Chauhan, 2008](#)).

Many developed countries introduced VET for the professionals. This helps them in a number of ways:

- Accessing and determining the skills level of a professional
- Determining the salary packages in the alignment of skills level
- Making both ethically and contractually obliged to the profession
- Understanding the man power demand and supply trend
- Future direction of manpower
- Guidance and regulatory control to protect misuse

## **STRATEGIC PLAN AND POLICY**

Arguments may convince that providing this kind of training may increase the productivity of an individual fisherman which would ultimately provide a higher sharing towards GDP of this



sector ([MOPND, 2006b](#)). This also may help to reduce gap of income amongst different professionals. However, as the way forward to direct policy makers, a few issues need to be revisited with a rigorous consultation before making policy and regulatory framework ([MOPND, 2006a](#)). The issues are:

- Does Maldives need some specialized schools exclusively for this kind of training?
- What could be the course and curricula and how will they be designed?
- How will this programme be incorporated into the existing system?
- How to encourage the students to be attentive in such programme?
- Where to find the qualified competent instructors?
- What will be the mode and module of theory and practical sessions?
- What will be the commencing grade for this training?

Answering all these questions may need a wider consultation and discussion with an in-depth analysis of a huge amount of government documents in connection with economic, public and education policies. As and when necessary, government should initiate micro researches with an engagement of competent researchers from various fields (i.e., economics, education, public policy) before drawing policy and regulatory measures. However, with regard to the first issue, we argue that given the geographical pattern of Maldives, this training needs to be a part of the secondary school provision in order to ensure that all the pre-mature graduates of different regions are covered.

## **CONCLUSION**

It is not surprise to see a plumber in a developed country earns more than a doctor does. Plumber is a profession which was even neglected earlier in many developed countries. Continuous negligence, low level of income and lack of social reputation, people was demotivated to be a plumber in many developed countries developing a huge shortage of competent plumbers. Realising the fact, government introduced VET for the negated professions with a decent policy guideline and control for implementation. The hat to be a VET graduates solves the problems in many ways. However, introducing VET without a decent policy framework in place and without making an atmosphere to implement will not offer any solution. It rather may bring more danger as providing VET always costs more money than traditional education. However, if with a decent policy and proper implementation, fishermen in Maldives can be given a hat of VET graduation; it would be no surprise to see that fishermen enjoy same social life as the politicians do which may make the sector sustain longer providing a sustainable development to Maldives.

## ACKNOWLEDGMENTS

We express our sincere gratitude to the honourable Minister of Education Dr. Asim Ahmed and State Minister of Education, Mr. Imad Solih Ministry of Education, Republic of Maldives for their kind supports to this research.

<sup>1</sup>A place is the Southern part of Maldives

## REFERENCES

- 1:** Adam, M.S., 2006. Country Review: Maldives. In: Review of the State of World Marine Capture Fisheries Management: Indian Ocean, De Young, C. (Ed.). FAO., Rome, Italy, pp: 383-391
- 2:** ADB, 2007. Social protection index for committed poverty reduction, volume 16: Maldives country report-final version. Asian Development Bank (ADB), pp: 1-64.  
<http://www2.adb.org/documents/reports/consultant/39261-reg/39261-01-reg-tacr-16.pdf>.
- 3:** ADB, 2012. Maldives: Employment skills training project. Project No. 33217, Asian Development Bank.
- 4:** Alam, G.M., A. Farhath, A.J. Othman, T.G. Rabby and P.K. Mishra, 2012. Role of fisheries sector on sustainable development of maldives: How can education help? Asian J. Anim. Vet. Adv., 7: 1198-1204.  
[CrossRef](#) | [Direct Link](#) |
- 5:** Alam, G.M., 2009. The role of science and technology education at network age population for sustainable development of Bangladesh through human resource advancement. Sci. Res. Essays, 4: 1260-1270.  
[Direct Link](#) |
- 6:** Alam, G.M., K.E. Hoque, M.T.B. Khalifa, S.B. Siraj and M.F.B.A. Ghani, 2009. The role of agriculture education and training on agriculture economics and national development of Bangladesh. Afr. J. Agric. Res., 4: 1334-1350.  
[Direct Link](#) |
- 7:** Al-Amin, A.Q., G.M. Alam and C.H. Hasanc, 2012. Analysis of offshore economic benefit and growth through the proper uses of the utility and scope of fisheries and livestock (animal and veterinary): A guideline to the MOFL in Bangladesh. J. Anim. Vete. Adv., 11: 866-872.  
[CrossRef](#) | [Direct Link](#) |
- 8:** Birdsall, N., 1993. Social development is economic development. Policy Research, The World Bank, Working Paper No WPS 1123.

**9:** Castely, R., 2005. Republic of the Maldives human resource needs study. Final Report, March 2005. <http://www.tvet.gov.mv/downloads/Research/HR%20Needs%20study.pdf>.

**10:** Chauhan, C.P.S., 2008. Higher education: Current status and future possibilities in Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka. *Anal. Rep. Int. Edu.*, 2: 29-48.  
[Direct Link](#) |

**11:** Chen, E., 2010. What is GST? TAYORI, JAGAM Newsletter, Selangor, Malaysia.

**12:** DNP., 2011. Department of national planning: Republic of Maldives. Ministry of Finance and Treasury.

**13:** Inception Report, 2007. Employment needs assessment study for social services sector. Inception Report, Social Services Sector, Clique Associate Trainers and Consultants Pvt. Ltd., pp: 1-12.

**14:** Kaplan, M. and T. Celik, 2008. The impact of tourism on economic performance: The case of Turkey. *The Int. J. Applied Econ. Finance*, 2: 13-18.  
[CrossRef](#) | [Direct Link](#) |

**15:** Middlehurst, R. and S. Woodfield, 2004. Summary report: The role of transnational, private, and for-profit provision in meeting global demand for tertiary education: Mapping, regulation and impact. Report Commissioned by the Commonwealth of Learning and UNESCO.

**16:** MOE, 2007. School statistics 2007. Ministry of Education, Republics of Maldives. <http://www.moe.gov.mv/>.

**17:** MOE, 2010. School statistics 2010. Ministry of Education, Republics of Maldives. <http://www.moe.gov.mv/>.

**18:** MOPND, 2006. Statistical year book of Maldives 2006. Ministry of Planning and National Development (MOPND). <http://www.planning.gov.mv/publications/yrb2006/intro.htm>.

**19:** MOPND, 2006. Population and housing census of Maldives 2006. Ministry of Planning and National Development (MOPND), Maldives.  
<http://www.planning.gov.mv/publications/Population%20and%20Housing%20Census%202006/home.htm>.

**20:** Nargis, N. and M. Hossain, 2006. Income dynamics and pathways out of rural poverty in Bangladesh, 1988-2004. *Agric. Econ.*, 35: 425-435.  
[CrossRef](#) | [Direct Link](#) |

**21:** Rabby, G.T., G.M. Alam, L.J. Fredericks, S. Nair and N. Azam *et al.*, 2011. What offers solution to

the poverty reduction of the Haor people in Bangladesh? Seasonal migration or a new inshore economic livelihood policy? Afr. J. Bus. Manage., 5: 9979-9991.

[Direct Link](#) |

**22:** Rabby, T.G., G.M. Alam, P.K. Mishra, K.E. Hoque and S. Nair, 2011. Different economic and policy perspectives in micro population for sustainable development: A study of the haor livelihood in Bangladesh. Afr. J. Bus. Manage., 5: 2475-2492.

[Direct Link](#) |

**23:** Scoones, I., 1998. Sustainable rural Livelihoods: A framework for analysis. IDS Working Paper 72, Institute of Development Studies, University of Sussex.

**24:** UNDP, 2009. Konne Kameyyes Vedhaane-Anything is possible: A comprehensive audience analysis for HIV risk in the maldives with recommendations for communication.

[http://www.undp.org.mv/v2/publication\\_files/4b3b2505d0afe.pdf](http://www.undp.org.mv/v2/publication_files/4b3b2505d0afe.pdf).

**25:** World Bank, 2002. Project performance assessment report-Maldives: Education and training project (credit 1981) and second education and training project (credit 2701). Report No. 25117: Document of The World Bank.

[http://Inweb90.worldbank.org/oed/oeddoelib.nsf/DocUNIDViewForJavaSearch/A2B5EB7F276345B385256C860071A654/\\$file/Maldives\\_PPAR.pdf](http://Inweb90.worldbank.org/oed/oeddoelib.nsf/DocUNIDViewForJavaSearch/A2B5EB7F276345B385256C860071A654/$file/Maldives_PPAR.pdf).