# Stakeholder Debate in Policy Implementation: An Evaluation Of Bangladesh Leather Processing Industry Relocation Policy\*

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Abstract: This paper focuses on stakeholder debate and conflict during policy implementation. In doing so it analyzes the reason behind the implementation snag of Bangladesh leather processing industry relocation policy, which is extreme stakeholder negotiation. Relevant stakeholders have been identified and their influence over the policy measure has been formulated. Underlying interactions among the stakeholders has been conceptually depicted to retrieve an image of the extreme stakeholder dispute behind this policy failure. Finally, based on the empirical evidence this policy measure has been evaluated in light of the effective participation of the concerned stakeholders.

Keywords: Stakeholder Conflict, Stakeholder Debate, Stakeholder Negotiation, Policy Implementation, Tannery Relocation, Leather Processing Industry.

## Introduction

"Environmental problems are typically complex, uncertain, multi-scale and affect multiple actors and agencies. This demands transparent decision-making that is flexible to changing circumstances, and embraces a diversity of knowledge and values. To achieve this, stakeholder participation is increasingly being sought and embedded into environmental decision making processes, from local to international scales" (Reed, 2008). Additionally "stakeholder participation needs to be underpinned by a philosophy... [that] participants have the power to really influence the decision... If a decision has already been made or cannot really be influenced by stakeholders then participation is not appropriate"

On the other hand, Goodland (2004) states, "effective participation means agreement on precautions, mitigation and compensation[and] 'meaningful participation' if properly implemented, can achieve free, prior informed consent (FPIC); [whereas] FPIC might be achieved by guaranteeing benefits to the impacted communities through insurance, performance bonds, or escrowed trust funds". Furthermore, Goodland (1995) claims that "environmental sustainability of a project concerning city development should include the decision made by the social community involved as major stake holders".

The above two calls for 'effective participation' of stakeholder during environmental decision making form the backdrop of this study, which aims to evaluate the 'Bangladesh Leather Procession Industry Relocation Policy', from a specific angle of "stakeholder debate" during policy formulation and implementation.

Bangladesh government undertook this policy option to relocate its noxious tannery industry from city center to outskirts dated back in 2003 (Rabbani, 2009) to ensure environmental compliance under increasing pressure from local and international communities (Bhowmik, 2012) and to comply with in country broader strategies (MoEF, GoB 1995, 2010, 2013). Its 2013 now and the new target of implementation is within June, 2013 (Saha, 2013) due to extreme debate and negotiation between different stakeholders over the course of time (Al-Muti and Ahmad, 2013). Specifically *imposing* the decision (introduced earlier by Reed, 2008) by government during policy design on the 'impacted'

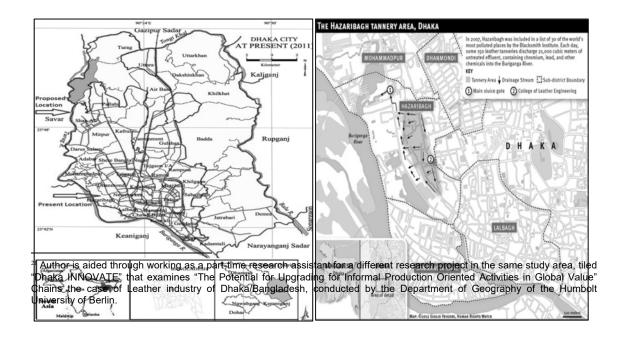
social communities' (prior stated by Goodland, 1995) which is the tannery owners in this case study, without considering its detrimental consequences during implementation stage.

This essay will shed light on the prior mentioned dispute in course of the finding reasons for this prolonged implementation snag. Literatures on stakeholder debate for this specific case study are scarce and there's still much more to explore. But it is a worthwhile topic containing the potential of high research impact. Authors partially relied upon several studies concentrated to judge the sustainability of this policy but more on cautious assimilation of grey literatures and media reports<sup>21</sup>.

# Bangladesh Leather Processing Industry Relocation Policy Background

Dhaka the capital of Bangladesh has emerged along the river bank of *Buriganga* and so also its industries following the basic rules of urban growth water availability and transportation facilities (Hossain, 2008; Banglapedia, 2012). First tannery in Bangladesh established dated back to 1940 (Hossain, 2012) which have now reached at 243 among which 95 percent are located in *Hazaribagh* (Figure-1 A)(Paul et al., 2013). This 50 acre (approx.) leather processing industry is surrounded by some of the prestigious residential areas of Dhaka (*Dhanmondi, Rayerbazar, Lalbag*). This sector contributed 3 percent of the country's export during the financial year 2010-2011 (*Ibid.*)

In contrast, from the beginning to date no environmental protection measure (i.e. Effluent Treatment Plant) has been taken for this high risk industry (Human Rights Watch, 2012). Liquid effluent and solid waste eventually find its way to Dhaka's main river *Buriganga* (Biswas and Hamada, 2013) through sewers and its adjacent areas (Figure-1 B). Numerous studies have been undertaken to assess the pollution level and health risk of this area (Asaduzzaman et al., 2006; Karim et al., 2013; Sunny et al., 2012; Hoque and Clarke, 2013). All echoing the same notion of disastrous impact on surface and ground water and health of exposed population. Recently this area has been ranked within *world's top ten worst place for toxic threat* (Blacksmith Institute and Green Cross Switzerland, 2013)



(A) (B)

Figure-1: (A) Present and Proposed Location of Bangladesh Leather Processing Industry
Source: Banglapedia (2012)

(B) Project Network of Bangladesh Leather Processing Industry

# (B) Drainage Network of Bangladesh Leather Processing Industry

Source: Human Rights Watch (2012)

# Description

In response to the criticisms from local community, scientific group and international and local environmental watchdogs, government began to think about the relocation of this industry from city center towards outskirts since the 1991 (Table-1).

Which was further pushed by a high court ruling in 2001 (Human Rights Watch, 2013, p.32). Followed by a formal announcement of relocation in 2002 and a *writ petition* in the Supreme Court by Bangladesh Environmental Lawyer's Association (BELA) in 2003 (ELAW, 2012). Under these circumstances, Bangladesh Small and Cottage Industries Corporation (BSCIC) under the Ministry of Industries signed a trilateral agreement with Bangladesh Finished Leather, Leather Goods and Footwear Exporters Association (BFLLFEA) and Bangladesh Tanneries Association (BTA) on 23<sup>rd</sup> October, 2003 (Rabbani, 2009). According to that, tannery industry is supposed to be relocated to *Savar* (outskirt of Dhaka and more upstream) for ensuring planned development through establishment of Common Effluent Treatment Plant (CETP) within a "Tannery Industry Town". Near about 400 acres of land acquired for this purpose among which 200 acre is for future expansion (Sheltech, 2009 cited in Bhowmik, 2013). Total 205 plots have been developed over 200 acres of land and distributed among 155 tanneries (Paul et al., 2013). Whereas government has a plan to redevelop the present location as a residential and recreational area (Bhowmik and Islam, 2009).

Table 1: Timeline of Bangladesh Leather Processing Industry Relocation Policy

Year	Event		
Pre-liberation			
1940	Establishment of first tannery		
1965	30 tanneries most of which were owned by the West Pakistani businessmen		
Post-liberat	ion		
1972	- All tanneries were nationalized under the nationalization decree		
	- Government formed Bangladesh Tanneries Corporation (BTC)		
1973-1981	Due to management crisis all tanneries were brought under Bangladesh Chemical		
	Industries Corporation (BCIC) and three among them three under Bangladesh		
	Freedom Fighters Welfare Trust		
1982	Failing to make profit, government transferred the ownership to private body		
1986	Government ordered 903 polluting factories (including the Hazaribagh tanneries) to		
	adopt measures to control their pollution within three years		
1991	The question of relocation began to be discussed among policy makers		
1993	It was decided that tanneries will shift to Savar and 17.30 acres land were acquired		
1998	An inter-ministerial meeting was held on August regarding the relocation		
2001	High Court of Bangladesh ordered polluting factories (including the Hazaribagh		
	tanneries) to adopt adequate measures to control pollution within one year		
2002	Relocation policy announced by that time prime minister of Bangladesh Nationalist		
	Party (BNP)		

2003 (Oct, 23 <sup>rd</sup> )	<ul> <li>Government and tannery owners signed an agreement</li> <li>Government (BNP) pledged to provide financial assistance where tanneries would finance 60 percent of the costs and the rest by government</li> <li>"Tannery Industry Town-Savar, Dhaka" Project was initiated to be completed by December, 2005</li> </ul>		
2005	The project was revised to be completed within May, 2009		
2006	<ul> <li>Government allocated 205 plots on 199.40 acres of land among 155 industries and proposed Tk 2.5 bn as compensation as it was estimated that the owners would incur a loss of Tk 11 bn</li> <li>No firm participated in the first tender for CETP</li> <li>Second tender for CETP, only one firm responded</li> </ul>		
2007	<ul> <li>Two firms responded to the third bid call, among them WBDC, JV a Bangladesh-Singapore joint venture, got the job</li> <li>Executive Committee of the National Economic Council (ECNEC) passed the</li> </ul>		
	first revised proposal of relocation		
2008	<ul> <li>Cabinet purchase committee cancelled the deal on allegations that the WBDC-JV had submitted false documents about its experience</li> <li>WBDC-JV then went for a legal battle on cancellation of awarding the deal to it; government stuck to go for a fresh tender until it was over</li> <li>A 14-member committee headed by the joint secretary of the Ministry of Industries was held on September and resolved that all the tanneries shall shift</li> </ul>		
	within February, 2010		
2009	<ul> <li>The government in that time (Bangladesh Awami League) said it would not bear the cost of CETP, the owners will have to pay for it</li> <li>High Court ruled government to ensure relocation by February, 2010, "failing of which [they] shall be shut down"</li> </ul>		
2010	- The relocation plan revised for the third time to be achieved by December, 2012		
	- The tender of CETP was floated for the fourth time		
2012	Chinese joint venture JLEPCL-DCL was awarded the contract of CETP		
	<ul> <li>European Union (chief buyer of Bangladeshi leather exports) threatened to boycott the country's products as of 2014 if the CETP is not completed</li> <li>ECNEC passed the second revised proposal</li> </ul>		
2013	<ul> <li>Government targeted to complete the project by June, 2016</li> <li>It will now bear 80 percent of the core project cost, the rest will be beard by the tannery owners by installments (15 years)</li> <li>The relocation of the tanneries, however, still remains uncertain as the factory</li> </ul>		
Source: Phon	owners are yet to sign the memoranda of understanding (MoU) with the government, due to their discontent about the allotment costs		

**Source:** Bhowmik and Islam, 2009; Bhowmik, 2012, 2013; Sarker and Siddique, 2013; ELAW, 2012; Al-Muti and Ahmad, 2013; IEDS, 2008; Saha, 2013; Human Rights Watch, 2012 and authors own rearrangement

# Ruling Government Party:

Bangladesh Nationalist Party (BNP) Bangladesh Awami League (BAL) Non-elected Caretaker Government



Though its 2013 now this relocation is yet to occur. This relocation plan has been revised several times targeting December, 2005 then December, 2006; May, 2009; February, 2010; August, 2010; April, 2011; June, 2012; December, 2012 and now June, 2016<sup>22</sup> (Human Rights Watch, 2012, p.32; Saha, 2013; Sarker and Siddique, 2013). Timeline of events of this protracted relocation policy has been illustrated chronologically in Table 1. Different disputes and their consequences rose during this time period have been also mentioned to explore the reason behind this prolonged policy implementation.

<sup>&</sup>lt;sup>22</sup> End of February, 2016 has recently been agreed as the final date - Editor

## **Evaluation**

The main factor played behind this lengthy policy implementation procedure is extreme *stakeholder debate and negotiation* considering various economic and socio-political issues (Al-Muti and Ahmad, 2013; Bhowmik, 2012) among the actors which are depicted in Table-2. Influence of the different actors over this policy measure and the inherent interaction between them is portrayed through a conceptual diagram (Figure-2). The subject policy will be evaluated in the coming section from different perspectives of stakeholder debate.

Economic loss and benefit (i.e. compensation, project cost bearing etc.) played a vital role behind this extreme negotiation between the three key stakeholders - BSCIC, BTA and BFLLFEA (Bhowmik and Islam, 2009). In the agreement of 2003 government approved to bear 40 percent of the total cost (TK175.75 crore) whereas tanners had to bear the rest (Lanteigne, 2010). This imposed decision gave rise to the issue of extreme negotiation regarding compensation, CETP cost bearing and other financial aids (Bhowmik, 2013, p.110). In the last so called consensus (Jibon, 2013) the new target of relocation was set for June, 2016 resulting project cost spiralled to near about 100 percent (TK1078.71 crore) in comparison to the starting point (Saha, 2013). Now government is willing to bear 80 percent of the liability but the deal is still to be agreed by the tanners because of the new debate about increase in the per square feet allotment cost (TK197 to 376.15) of project raised due to inflation, time value of money and price increase of construction materials and technologies.

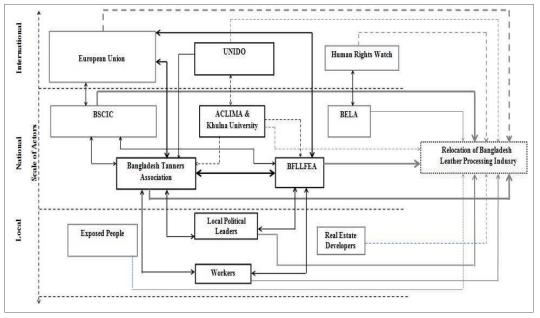


Figure-2: Conceptual Diagram of the Actors and Stakeholders of the Policy

**Source:** Bhowmik and Islam, 2009; Bhowmik, 2012, 2013; Al-Muti and Ahmad, 2013; Sarker and Siddique, 2013; ELAW, 2012; Bryson, 2004 & authors own representation

# Notes:

Area of the Rectangle Represents the Operational Scale or Number of the Actors

- Ash Color (Rectangle) Characterizes Negative Consent towards the Policy Tool and Black Color (Rectangle) Symbolize the Opposite
- Width of the Arrow (Ash) Denotes Influence upon the Policy Measure (i.e. thick arrow = higher influence)
- Arrows in Black Represents the Relationship Between the Actors: Direction Represents the Orientation and Width Symbolizes the Significance

Table 2: Type of Actors and their Interests in the Policy

Issue/Policy: Bangladesh Leather Processing Industry Relocation			
Actors/Stakeholders	Category & Scale	Aspect of Involvement	Goal/Interest
European Union	Principal Buyer (International)	Implementation	Threatened to boycott for early implementation of the policy to ensure a neat image worldwide of their supply chain
Human Rights Watch	Overseer (International)	Implementation	Protect the basic right of the exposed community through awareness building
United Nations Industrial Development Organization (UNIDO)	Development Partner (International)	Implementation	Provided an on-site solution and against the relocation because of further risk of pollution via relocation in the upstream (Savar)
Bangladesh Small and Cottage Industries Corporation (BSCIC)	Government Regulatory Authority (National)	Formulation & Implementation	Relocation initiative under local and national pressure and to ensure environmental compliance
Bangladesh Environmental Lawyers Association (BELA)	Overseer (National)	Formulation	Immediate relocation to protect the local environment specially the adjacent <i>Buriganga</i> river
Asociación Cluster de Industrias de MedioAmbiente de Euskadi (ACLIMA) & Khulna University	Consultancy & Academic (International & National)	Formulation	Analyzed the present pollution scenario and proposed an extensive and resource consumptive remediation plan for redevelopment in present location; against the relocation in terms of research findings
Bangladesh Tanners Association (BTA)	Principal Actor (National)	Formulation & Implementation	Core opposition for relocation; negotiating for years regarding compensation and other aids
Bangladesh Finished Leather, Leather Goods & Footwear Exporters' Association (BFLLFEA)	Co-Principal Actor (National)	Formulation & Implementation	Co-core opposition for relocation; negotiating for years regarding compensation and other aids
Workers	Most Effected Group (Local)	Effect	Tannery as the principal livelihood; physically victim for the delay in policy implementation; will be also effected economically during and after relocation
Exposed People	Effected	Effect	Wants early relocation to get

	Group (Local)		rid of the severe health threat
Local Political Leaders	Associate of Principal Actors (Local)	Implementation	Against the relocation; works for the interest of government as well as tannery owners
Real Estate Developers	Fortune Hunter (Local)	Effect	Hidden actor of the scenario; wants early relocation for the sake of profit making through re-development

**Source:** Bhowmik and Islam, 2009; Bhowmik, 2012, 2013; Al-Muti and Ahmad, 2013; Sarker and Siddique, 2013; ELAW, 2012; Saha, 2013; Reuters, 2012; IEDS, 2008; Motlagh, 2013 and authors own elaboration

Tanners from the beginning were negotiating about the compensation package as well as running business in the current location, considering further risk of pollution in Savar, cost-effectiveness of providing CETP in Hazaribagh, production loss during relocation and other 'pull factors' of the current location (i.e. transportation, utilities etc.). Their willingness to pay for ensuring compliance in current location, cost-benefit analysis of the project for two scenarios (Hazaribagh and Savar) and sustainability from the perspective of urban planning has been well documented by Bhowmik (2012, 2013).

Politically biased perspective hampered this relocation in various ways. When the first agreement was reached about relocation (2003) the ruling government party was Bangladesh Nationalist Party (BNP), who agreed to bear the cost of CETP (Table-1). During 2003-2009 the bargaining from tanners was about increased amount of cost bearing by the government itself (from its predetermined 40% share). But during 2009 when Bangladesh Awami League (BAL) came to the power they refuse to bear the substantial cost of CETP (Table-1) and the bargaining started again from the beginning resulted in nothing but delay. This has been termed as the usual biasness and unethical practice of Bangladeshi politics by Al-Muti and Ahmad (2013). On the other hand tanners are divided among themselves according to political beliefs and place of origin within the country. Al-Muti and Ahmad (2013) states, "significant portion of the leather entrepreneurs bear allegiance to the opposition party, and thus apparently had an interest in delaying the relocation project beyond the 2014 national election in order to prevent the ruling political actors from being able to claim it as a success during its tenure".

Lobbying strongly by tanners due to their favorable economic, social and political position affected the implementation of the policy further. Due to their financial position they got strong linkages within government and negotiated with top level of the country throughout these years without suffering any penalties from its inception till date (Leather International, 2013). Human Rights Watch (2012) in its study elaborated how tanners continuously extended the time of relocation along with the government in the face of several ruling from High Court between these time periods (2003-date). This has been possible with strong lobbying actors or representatives on behalf of the tanners within government. One of the example is the 'lawyer' "who represented the tannery associations in one petition to the High Court in February 2010 for an extension was 'a member of the government'. He is also the nephew of in that time Prime Minister", representing strong conflict of interests (lbid., p.12).

Regulatory chill and glacier pace of the government bureaucracy has been observed for the tanneries which has been extrapolated during the study of Human Rights Watch (2012) and others. According to a Department of Environment official "there is a *de facto* policy not to monitor or enforce environmental laws because the Ministry of Industries is preparing a site in Savar for relocation of the tanneries. In the words of one official who requested anonymity, *since the plan to shift, the Department of Environment has been inactive*" (*Ibid.*, p.33).

Disregard of alternatives and imposing decision under the pressure of powerful (i.e. European Union) while decision making is another aspect for this implementation delay and stakeholder debate. ACLIMA (2007) along with Khulna University, Bangladesh conducted an extensive research on the pollution of Hazaribagh and recommended to install CETP within it other than relocation. Because the recovery of present land after relocation for any further use will be extremely resource and time consumptive (cited in Bhowmik, 2013). Absence of which can impose serious health risk. Align with that research findings, earlier UNIDO proposed (Hasnain et al. 1999) an initiative to install CETP in Hazaribagh, but government opposed it with the help of local political leaders (Bhowmik, 2012; Human Rights Watch, 2012). Motivation behind governments' stern attitude towards relocation can be explored if the study of Paul et al. (2013) and the objectives of the project (Bhowmik,2012, p.4)is critically analyzed, which is simple revenue earning for governments side and profit making for EU. When the tanneries will move towards new location, they can expand their existing production scale (Paul et al. 2013) which in turn will result more cost-effective supply for EU and more revenue for government. It will make more profit for the tanners also but they are concerned about their huge investment in Hazaribagh and production loss during transition period, which cannot be neglected in a resource constraint country like Bangladesh.

Failure of top-down approach, in other countries during tannery relocation due to owner's strong unwillingness should be also taken into consideration while judging this policy. Three case studies has been summarized by Bhowmik (2013), which have been adopted here and presented below (Table 3). Critical analysis and insights from them has not been performed by the author due to the scope of this study. Only the summary has been presented here showing how stakeholder's unwillingness and debate in those cases resulted in failure of the respective policy measure.

Table 3: A Comparative Overview of the Tannery Relocation Projects that have Failed

Country	India	Egypt	Mexico
City	Tamil Nadu	Cairo	Leon
Number of Tanneries	577	320	675
The River Polluted	Palar	Nile	Gomez
Causes of Failure of Relocation Projects	Appeals from social communities including tannery owners	Unwillingness of the tannery owners to assist the government in ownership and	No progress because of the unwillingness of the tannery owners

		transfer issues	
Reference	Kennedy (1999)	Bartone and Benavides (1997)	Blackman (2000)
		1	

Source: Adopted and Reproduced from Bhowmik (2013, p.115)

# Conclusion

Bangladesh Leather Processing Industry Relocation Policy is an imposed decision on relevant stakeholders (especially on tannery owners). It failed completely to address Goodland's (2004) suggestion for taking consent from the community affected before undertaking any project for the sake of its success and Reed's (2008) proposition to ensure that stakeholder can affect the decision making. Government had taken the decision to ensure environmental decision which is also crucial but selected the policy options without considering other alternatives and proper research about further risk and sustainability. Recent agreement about the relocation within June, 2016 is questionable by the concerned people of this industry (Human Rights Watch, 2012) due to new debate about the increased allotment cost and failure of similar attempt in other countries.

## References

ACLIMA. (2007). Site Remediation and Management Guidelines for Hazaribagh. Associación Cluster de Industrias de Medio Ambiente de Euskadi. Retrieved from

http://www.aclima.net/aclima/Web.nsf/vwPaginasPlanasWEB/9EA57521011F2A8EC1257457002DDFEA?Opend ocument

Al-Muti, S. A., & Ahmad, N. (2013, November 13). Relocation a Boon for Bangladeshi Leather Sector. Retrieved December 6, 2013, from http://asiafoundation.org/in-asia/2013/11/13/relocation-a-boon-for-bangladeshi-leather-sector/

Asaduzzaman, A. T. M., Nury, S. N., Hoque, S., & Sultana, S. (2004). Water and Soil Contamination from Tannery Waste: Potential Impact on Public Health in Hazaribagh and Surroundings, Dhaka, Bangladesh. In *The Ground Beneath Our Feet: A Factor in Urban Planning* (Vol. 14, pp. 415–443). New York, USA: United Nations, Economic and Social Commission for Asia and the Pacific.

Banglapedia. (2012). Dhaka. In *National Encyclopedia of Bangladesh* (2nd ed.). Dhaka, Bangladesh: Asiatic Society of Bangladesh. Retrieved from http://www.banglapedia.org/HT/D 0171.htm

Bartone, C. R., & Benavides, L. (1997). Local Management of Hazardous Wastes from Small-Scale and Cottage Industries. *Waste Management & Research*, *15*(1), 3–21. http://doi.org/10.1177/0734242X9701500102

Bhowmik, A. K. (2012). Environmental Sustainability vs. Political Decision: A Review of the Bangladesh Leather Processing Industry Relocation Plan (p. 26). Presented at the 2nd World Sustainability Forum, Basel, Switzerland: MDPI.

Bhowmik, A. K. (2013). Industries' Location as Jeopardy for Sustainable Urban Development in Asia: A Review of the Bangladesh Leather Processing Industry Relocation Plan. *Environment and Urbanization Asia*, *4*(1), 93–119. http://doi.org/10.1177/0975425313477749

Bhowmik, A. K., & Islam, M. S. (2009). *Relocation of Hazaribagh Tannery: Myth or Reality?* (Bachelor Thesis). Department of Urban & Regional Planning, Bangladesh University of Engineering & Technology, Dhaka.

Biswas, B., & Hamada, T. (2013). Relation Between Hazaribagh Tannery Industry Development and Buriganga River Pollution in Bangladesh. *International Journal of Environment*, 2(2), 117–127.

Blackman, A. (2000). Making Small Beautiful - Lessons from Mexican Leather Tanneries and Brick Kilns. *Small Enterprise Development*, 11(2), 4–14. http://doi.org/10.3362/0957-1329.2000.016

Blacksmith Institute, & Green Cross Switzerland. (2013). *The World's Worst Polluted Places - Top Ten Toxic Threats in 2013: Cleanup, Progress, and Ongoing Challenges* (p. 35). New York: Blacksmith Institute & Green Cross Switzerland. Retrieved from http://www.worstpolluted.org/docs/TopTenThreats2013.pdf

ELAW. (2012). Bangladesh - BELA v. Government of Bangladesh and Others (WP of 2003) (Tannery Case) (Original Petition). Retrieved December 5, 2013, from http://www.elaw.org/node/2561

Goodland, R. (1995). The Concept of Environmental Sustainability. *Annual Review of Ecology and Systematics*, 26, 1–24.

Goodland, R. (2004). Free, Prior and Informed Consent and the World Bank Group. Sustainable Development Law & Policy, 4, 66–75.

Hasnain, S. A., Jawahar, S., & Porst, J. (1999). Assistance in Pollution Control in the Tanning Industry in South-East Asia (US/RAS/92/120). United Nations Industrial Development Organization. Retrieved from http://www.unido.org/fileadmin/import/43186 FINAL EVAL REPORT 19991007 USRAS92120.pdf

Hoque, A., & Clarke, A. (2013). Greening of Industries in Bangladesh: Pollution Prevention Practices. *Journal of Cleaner Production*, *51*, 47–56. http://doi.org/10.1016/j.jclepro.2012.09.008

Hossain, B. (2012). Tannery. In *National Encyclopedia of Bangladesh* (2nd ed.). Dhaka, Bangladesh: Asiatic Society of Bangladesh. Retrieved from http://www.banglapedia.org/HT/T 0055.htm

Hossain, S. (2008). Rapid Urban Growth and Poverty in Dhaka City. Bangladesh E-Journal of Sociology, 5(1), 1–24

Human Rights Watch. (2012). *Toxic Tanneries: The Health Repercussions of Bangladesh's Hazaribagh Leather*. United States of America: Human Rights Watch.

Human Rights Watch. (2013, March 4). Italy: Leather Buyers Beware. Retrieved October 10, 2013, from http://www.trust.org/item/?map=italy-leather-buyers-beware

IEDS. (2008). Tannery Shifting Stalled and Stuck in Court. Retrieved December 5, 2013, from http://www.iedsbd.org/tannery.html

Jibon, S. I. (2013, August 13). Tannery Relocation Project - Cost to be Doubled - Delay in Implementation, Govt. Move to Benefit Tannery Owners Blamed [Online Newspaper]. Retrieved October 10, 2013, from http://newagebd.com/detail.php?date=2013-08-13&nid=60729#.UlagRVOGPSQ

Karim, M. R., Manshoven, S., Islam, M. R., Gascon, J. A., Ibarra, M., Diels, L., & Rahman, M. M. (2013). Assessment of an Urban Contaminated Site from Tannery Industries in Dhaka City, Bangladesh. *Journal of Hazardous, Toxic, and Radioactive Waste*, 17(1), 52–61. http://doi.org/10.1061/(ASCE)HZ.2153-5515.0000139

Kennedy, L. (1999). Cooperating for Survival: Tannery Pollution and Joint Action in the Palar Valley (India). *World Development*, 27(9), 1673–1691. http://doi.org/10.1016/S0305-750X(99)00080-7

Lanteigne, D. (2010, December 5). Colours of Water: Bangladesh's Leather Tanneries. Retrieved December 5, 2013, from http://ourworld.unu.edu/en/colours-of-water-bangladesh%E2%80%99s-leather-tanneries

Leather International. (2013, February 9). When Will It End? Reviewing the Dhaka Tannery Impasse. *Leather International*. UK. Retrieved from http://www.leathermag.com/features/featurewhen-will-it-end-reviewing-the-dhakar-tannery-impasse/

MoEF. (1995). *National Environment Management Action Plan (NEMAP) - 1995*. Dhaka, Bangladesh: Ministry of Environment and Forests, Government of the People's Republic of Bangladesh.

MoEF. (2013). Bangladesh National Environmental Policy 2013 (Draft). Dhaka, Bangladesh: Ministry of Environment, Government of the Peoples Republic of Bangladesh.

MoEF, GoB. (2010). Pollution Abatement Strategies for Rivers and Wetlands in and Around Dhaka City (Parliamentary Standing Committee Report on Ministry of Environment & Forests). Dhaka: UNDP. Retrieved from http://ext.bd.undp.org/CCED/bgdp/BGDP%20Materials/Review%20Documents/Pollution%20abatement%20strat egies%20for%20river%20and%20wetland.pdf

Motlagh, J. (2013, March 9). Hell for Leather: Bangladesh's Toxic Tanneries Ravage Lives and Environment. *Time*. Retrieved from http://world.time.com/2013/09/03/hell-for-leather-bangladeshs-toxic-tanneries-ravage-lives-and-environment/

Paul, H. L., Antunes, A. P. M., Covington, A. D., Evans, P., & Phillips, P. S. (2013). Bangladeshi Leather Industry: An Overview of Recent Sustainable Developments. *Journal of the Society of Leather Technologists and Chemists*, 97(1), 25–32.

Rabbani, M. G. (2009). Environmental Risks in Dhaka: Present Initiatives and the Future Improvements. In R. Shaw, H. Srinivas, & A. Sharma (Eds.), *Community, Environment and Disaster Risk Management* (Vol. 1, pp. 319–338). Emerald Group Publishing Limited. Retrieved from http://www.emeraldinsight.com/10.1108/S2040-7262(2009)0000001020

Reed, M. S. (2008). Stakeholder Participation for Environmental Management: A Literature Review. *Biological Conservation*, 141(10), 2417–2431. http://doi.org/10.1016/j.biocon.2008.07.014

Saha, S. (2013, August 19). Tannery Relocation by 2016 [Online Newspaper]. Retrieved October 10, 2013, from http://www.thedailystar.net/beta2/news/tannery-relocation-by-2016-barua-says/

Sarker, P. K., & Siddique, A. B. (2013, June 5). Hazardous Hazaribagh. *Dhaka Tribune*. Dhaka. Retrieved from http://www.dhakatribune.com/environment/2013/jun/05/hazardous-hazaribagh

Sheltech. (2009). Preparation of Detailed Area Plan (DAP) for Location-1, 2, 20 of Dhaka Metropolitan Development Plan (DMDP) of RAJUK (Capital Development Authority, Dhaka). Dhaka, Bangladesh: Sheltech Consultants Pvt. Ltd.

Sunny, F. A., Karimanzira, T., & Huang, Z. (2012). Environment Security: An Empirical Study of Industrialization and the Impact on Environment in the Dhaka Division, Bangladesh. *Environment, Development and Sustainability*, 14(6), 885–900. http://doi.org/10.1007/s10668-012-9357-5