

# **Law Enforcement Strategies to Pollution and Damage Citarum River's Through the Principle Unity of Command : Indonesian Armed Forced Deployed to Clean Citarum River**

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## **Abstract**

As Indonesia's most strategic river, the Citarum is the source of water for the Jatiluhur Reservoir, which is Indonesia's largest reservoir at 3 billion cubic meters of storage capacity. The reservoir not only supplies clean water for Bandung but also provides 80 percent of the water supply for the capital. It also irrigates 400,000 hectares of rice fields and is a source of energy for three hydroelectric power stations serving three cities. Over the past twenty years, the Indonesian government and international development agencies have ranked the Citarum River among the most polluted rivers in the world. Pollution, flooding, sedimentation, deforestation and over-pumping of ground water, combined with inadequate policy enforcement and poor coordination between government agencies are compromising Indonesian livelihoods. In 2007, the Asian Development Bank (ADB) loaned Indonesia \$500 million to implement "Integrated Water Resources Management" (IWRM) as a "best practices" management intervention to solve the "crisis" by "making decisions at the lowest appropriate level."

## **Introduction**

The Citarum River has its source in Mount Wayang and its mouth in the Java Sea in Java. It flows for 190 miles from the Bandung Regency to the Karawang Regency in West Java. The residents of West Java rely on the river for activities such as agriculture, fishing, water supply for homes and industries, and electricity generation.

However, efforts to clean up the river will be a waste if the government does not immediately take action against rogue businessmen who create dumping holes containing industrial wastewater that pollute the river. The authorities should go straight to the source to seal-off dumping holes and explicitly remove business permits for those who remain ignorant of the rules.

From February, 2018, total of 7.100 joint personnel led by the Indonesian Armed Forced were divided into 22 sectors along this 300 km river to clear garbage from the river and to bring plant life back to the critical lands surrounding the Citarum. Citarum reforestation is

critical – 2,500 hectares of sector 1 upstream land and 80,000 hectares of land adjacent to the river have been heavily affected by the rapid industrialization in the region since the 1980s.

**Environment:** In future years, a reduction in untreated wastewater release and dumping of fecal and septage sludge into rivers will lead to a slower rate of sedimentation in the Citarum River. Less sediment means that less regular dredging is needed. Sediment from erosion flowing into Saguling is estimated at 1.3 million cubic meters per year (6 Ci's Project).

## Discussion

Environment pollution is a wide-reaching problem and it is likely to influence the health of human populations is great. This paper provides the insight view about the affects of environment pollution in the perspective of air pollution, water and land/ soil waste pollution on human by diseases and problems, animals and trees/ plants. Study finds that these kinds of pollutions are not only seriously affecting the human by diseases and problems but also the animals and trees/ plants. According to author, still time left in the hands of global institutions, governments and local bodies to use the advance resources to balance the environment for living and initiates the breathed intellectuals to live friendly with environment. As effective reply to contamination is largely base on human appraisal of the problem from every age group and contamination control program evolves as a nationwide fixed cost-sharing effort relying upon voluntary participation.

Environmental pollution is tangled with the unsustainable anthropogenic activities, resulting in substantial public health problems. Population from infectious diseases to diseases such as cancer, birth defects, and asthma, many of which may be associated with environmental exposures. The water we drink are essential ingredients for our wellbeing and a healthy life. Unfortunately polluted water and air are common throughout the world. The WHO states that one sixth of the world's population, approximately 1.1 billion people do not have access to safe water and 2.4 billion lack basic sanitation.<sup>77</sup>

Polluted water consists of Industrial discharged effluents, sewage water, rain water pollution and polluted by agriculture or households cause damage to human health or the environment. This water pollution affects the health and quality of soils and vegetation . Some water pollution effects are recognized immediately, whereas others don't show up for months or years. Estimation indicates that more than fifty countries of the world with an area of twenty million hectares area are treated with polluted or partially treated polluted water. In fact, the effects of water pollution are said to be the leading cause of death for humans across the globe, moreover, water pollution affects our oceans, lakes, rivers, and drinking water, making it a widespread and global concern (Scipeeps, 2009). A drinking

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<sup>77</sup> European Public Health Alliance, 2009.

water contained a fluoride content ranging from 5.26 to 26.32 milligrams per liter and this is too high as compared to the World Health Organization's standard of 0.6 to 1.7 milligram per liter.<sup>78</sup>

Water is the most vital element among the natural resources, and is critical for the survival of all living organisms including human, food production, and economic development. Today there are many cities worldwide facing an acute shortage of water and nearly 40 percent of the world's food supply is grown under irrigation and a wide variety of industrial processes depends on water. The environment, economic growth, and developments are all highly influenced by water-its regional and seasonal availability, and the quality of surface and groundwater. The quality of water is affected by human activities and is declining due to the rise of urbanization, population growth, industrial production, climate change and other factors. The resulting water pollution is a serious threat to the well-being of both the Earth and its population.<sup>79</sup>

Especially in Asia: At present the adoption of environmental auditing in any economic sector is voluntary but future legislation could well make it mandatory and still time available to use technology and information for environmental health decision. Policy makers in developing countries need to design programs, set standards, and take action to mitigate adverse health effects of air pollution. Healthy people mean human resources are the main object of any successful business or country. These societal beneficial efforts need to carefully adapt available knowledge from other settings, keeping in mind the differences in pollutant mixtures, concentration levels, exposure patterns, and various underlying population characteristics.

In comparison with legislation in neighboring countries, the Indonesian requirements are not very stringent. For example, the BOD requirements in the Philippines (No. 35, Series of 1990), Malaysia (PU(A) 398/2000), Viet Nam (TCVN 67722000), and the People's Republic of China (GB18918-2002) are 30-80 mg/L, 20-50 mg/L, 30-40 mg/L (levels 1-3), and 10-40 mg/L, respectively. In addition, most of these refer to maximum coliform values in the effluent, whereas no such standard is present in the Indonesian guidelines.

However, untreated municipal wastewater is likely to account for only a small proportion of total sediment, compared with other land-based sources such as run-off from agricultural land and due to deforestation. Water quality in most locations in the upper Citarum River basin is poor, and pollution levels far exceed the maximum allowable levels. Water quality has been deteriorating in the past 20 years and is likely to continue to do so if no

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<sup>78</sup> Ashraf, M. A., Maah, M. J., Yusoff, I. & Mehmood, K. (2010). Effects of Polluted Water Irrigation on Environment and Health of People in Jamber, District Kasur, Pakistan, *International Journal of Basic & Applied Sciences*, 10(3), pp. 37-57

<sup>79</sup> Joshua Nizel Halder and M. Nazrul Islam, *Polusi Air Dan Dampaknya Terhadap Kesehatan Manusia, Lingkungan Dan Issus Manusia* (Cetak): 2373-8324 ISSN (Online): 2373-8332 DOI: 10.15764 / EH.2015.01005 Volume 2, Nomor 1, Januari 2015.

considerable effort is made to reverse it. Furthermore, there is a clear deterioration in water quality on all parameters going from upstream areas to downstream areas. Domestic-municipal activities produce at least two-thirds of pollution, followed by industrial and agricultural-irrigation activities.

Improving the water quality in the upper Citarum River basin (and with that of downstream areas as well) to levels in line with the standard values class II (BMA) is possible but requires interventions in both domestic-municipal and industrial sectors. Focusing on one of these segments alone will most probably not result in reaching the desired quality improvements. Corresponding costs for domestic-municipal and industrial wastewater interventions are approximately Rp14 trillion and Rp 1.6 trillion, respectively, over a period of 20 years. Further, an approximate investment of Rp 0.8 trillion for municipal solid waste infrastructure is expected.

The river has many fish species such as walking catfish, suckermouth catfish, common carp, minnows, cichlids, betok, and impun paris. The poor-quality water in the river has supported the rapid spread of wild water plants, mudskipper fish, and plankton. Continuous pollution has led to the decrease of fish populations in the river. Most people living in Citarum's banks have no choice but to use its waters for bathing, cleaning, and washing. The residents always complain of skin irritations, respiratory problems, stomachache, and diarrhea among other problems. A section of the residents does not drink or cook with water due to high levels of pollution. The toxins dumped in the water have affected marine life and led to a decrease in the species found in the river which has in turn affected fishing.

Efforts to clean up the river were implemented starting November 2011 at an estimated cost of \$4 billion spent over 15 years. The cleanup is taking place at a distance of 112 miles through three cities. The program aims at cleaning up 10.5 million cubic meters of waste in the first three years.

Most people who live on the banks of Citarum have no choice but to use the water for bathing, washing, and washing. Occupants always rest on the skin, breathing problems, abdominal pain, and diarrhea among other problems. Some residents do not drink or cook with water because of the high level of pollution. Toxins released in the air have affected marine life and caused a decline in species found in rivers which at the time affected fishing.

Nowadays there is a tendency in many countries to protect the environment by incorporating general principles of environment into a state or a regional constitution.

The right to live and get a good and healthy environment This provision contains the definition of each country entitled and entitled to constitutional guarantees (constitutional guarantees) to live and obtain a good and healthy environment to grow and develop.

In article 12 (1) ICESCR : “The States Parties to the present Covenant recognize the right of everyone to the enjoyment of the highest attainable standard of physical and mental health”.

The inclusion of environmental norms into basic documents has become the main trend. An example is the Charter of Fundamental Rights of the European Union which contains. A high level of environmental protection and the improvement of the quality of the environment must be integrated into the principles of the Union and ensured in accordance with the principle of sustainable development<sup>80</sup>

In various parts of the world an idea called the ecocracy emerged. The first global ecocracy embryo was present at the Brundtland Report. According to Henryk Skolimowski, the conception of the economy is more in the form of recognition of the forces of nature and life in them, understanding of environmental limitations, elements of cooperation with nature, and most importantly creating a sustainable ecological system with respect for the earth and not exploitatively.<sup>81</sup>

According to Andi Hamza, enforcement of environmental law in Indonesia is very difficult, covering preventive and repressive aspects, especially those that have government involvement to actively increase community legal awareness. Furthermore, it is said that the enforcement of environmental law is very complicated, because environmental law stands above the meeting point of various legal fields, such as administrative, civil, and criminal matters, sometimes even touching tax law.<sup>82</sup>

When countries in various parts of the world have incorporated environmental provisions into their constitution for a long time, Indonesia has only created an umbrella law on environmental protection in 1982. However, after the amendment to the 1945 Constitution, environmental norms have begun to be constitutionalized. Indeed, Indonesia should not only have an "umbrella" law related to environmental issues, but also the norms that are included in the body of the Constitution so that it can be used as the basis of all basic laws, policies and actions on a pro-environment framework.

Reaching the Indonesian Ecocracy Through Building the Politics of Environmental Law. As previously explained, Indonesia is not enough now achieve the ideals of a state of law (nomocracy) based on the value of Godhead (theocracy) and democratic values, but also must reach a sovereign state in the environment (ecocracy). Caring in the sense through its legal instruments has been regulated regarding sustainability or environmental sustainability for the future.

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<sup>80</sup> EUR-Lex, “*Charter of Fundamental Rights of the European Union*”, (<http://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A12012P%2FTXT>), accessed 30 Februari 2019

<sup>81</sup> P2P Philosophical Foundation, “The Eco-Philosophy of Henryk Skolimowski”, dalam Michel Bauwens, *Foundation for Peer to Peer, Alternatives Newsletter Issue 67*, 2005.

<sup>82</sup> Andi Hamzah, *Penegakan Hukum Lingkungan*, Jakarta: Sinar Grafika, 2005, h. 49-50.

UU No. 39/2009 is the gateway to Indonesia's "ecocracy" country because of is a clear environmental protection and management legal system, firm, and comprehensive in order to ensure legal certainty as a basis for protection and management of natural resources and other development activities. Indonesia's environment must be protected and managed properly based on principles state responsibility, sustainability principle, and justice principle. In addition, managementthe environment must be able to provide economic, social and cultural benefits based on the principle of prudence, environmental democracy, decentralization, and recognition and appreciation of local wisdom and environmental wisdom. Existence this recognition is a form of responsive law as stated by Philippe Nonet and Philip Selznick.<sup>83</sup>

In order to achieve the "Indonesian ecocracy state" is not only borne by legal rules only, namely the rule of law that is proliferative with the term green legislation, but must also be supported by a proliferation of legal frameworks as well, which in Indonesia are called constitutions, so that the term green constitution emerges later coupled with a proliferating state budget called green budgeting.

In the Indonesian context, green constitution and ecocracy are reflected in ideas about power and human rights and the concept of economic democracy as it is confirmed by the 1945 Constitution of the Republic of Indonesia (NRI Constitution) 1945). Article 28H Paragraph (1) and Article 33 Paragraph (4) of the 1945 Constitution provide a constitutional basis for green constitution. Thus, the norm environmental protection in Indonesia actually has a foothold stronger. However, there are still not many public and community policy makers broad in the country who know and understand about this important matter. That's why a program is needed to disseminate knowledge about green the constitution and the ecocracy.<sup>84</sup>

While Article 33 paragraph (4) of the 1945 Constitution of NRI reads: "National economy organized based on economic democracy with the principle of togetherness, efficiency, fair, sustainable, environmentally sound, independent, and by taking care balance of progress and unity of the national economy "There are two concepts that are related to the idea of ecosystems, namely that the national economy is based on intended economic democracy must contain sustainable and insightful principlesenvironment. Obviously in the constitution as an instrument of the Indonesian political law umbrella recognized nature has its own sovereignty. Therefore, besides the people as humans which is considered sovereign, nature is also sovereign.

Before we flush it back into the river, but activist groups claim that minimum enforcement, coupled with widespread false reporting and bribery, mean facilities continue to dump a

<sup>83</sup> Philippe Nonet dan Philip Selznick, *Hukum Responsif*, terjemahan Raisul Muttaqien, Cet. ke-2, Nusamedia, Bandung, 2008, hlm. 84.

<sup>84</sup> Jimly Assidiqi, *Green Constitution: Nuansa Hijau Dalam Undang-Undang Dasar Negara Republik Indonesia Tahun 1945*, PT. Grafindo, Jakarta, 2009.

cocktail of toxic and hazardous chemicals into the Citarum and adjoining canals. In 2013, an investigation by environmental action group Greenpeace found hazardous chemicals including cadmium, lead and cobalt in waste water entering the Citarum.

Decades of neglect and mismanagement have, activists insist, turned the waterway into a toxic swamp, and the once pristine Citarum has earned its epithet as the dirtiest river in the world, bestowed by the World Bank a decade ago. Throughout 2018, the military operation as part of the Citarum rehabilitation program was funded by the Citarum River Basin Area Center under the Public Works and Housing Ministry.

Military personnel have been assigned to carry out various tasks, including clearing up garbage and waste from the river, educating residents on waste disposal as well as taking care of the seedling nursery.

The government said it had allocated Rp 640 billion for the program this year and appointed West Java Governor Ridwan Kamil as the head of the Citarum task force. Indonesia troops deployed to clean one of world's dirtiest rivers. Thousands of soldiers are being deployed in an ambitious project to make the water of the Citarum in Indonesia drinkable in the next seven years. The issue means, no matter how much the troops clean, the trash keeps on coming. Importantly, the military has discovered that the river is the only place locals can put their rubbish as there is no adequate waste disposal. Army involvement is a crucial indication that the clean up of Citarum is an issue the Government is taking seriously.

Many interrelationships exist outside the straight line of command which require working with, and reporting to many persons for purposes of orderly and effective performance...the administrator in government has many bosses and he can neglect one of them. From one he may receive policy orders; from another, personnel; from a third, budget; from a fourth, supplies and equipments.<sup>85</sup>

“The principle of unity of command is perhaps more defensible if narrowed down to the following: In case two authoritative commands conflict, there should be a single determinate person whom the subordinate is expected to obey, and the sanctions of authority should be applied against the subordinate only to enforce his obedience to that one person.

The principle of Unity of Command is a core tenet of military operations. Unity of Command increases accountability, prevents freelancing, improves the flow of information, helps with the coordination of operational efforts, and enhances operational safety.

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<sup>85</sup> S. B. M. Marume1, R.R. Jubenkanda2, 1BA, Hons BA, MA, MAdmin, MSoc Sc, PhD 2BSc, MSc. Econ, MSc, DPhil (Candidate) Zimbabwe Open University, International Journal of Business and Management Invention ISSN (Online): 2319 – 8028, ISSN (Print): 2319 – 801X www.ijbmi.org , Volume 5 Issue 6, June. 2016 , PP— 14-18

In Perpres No 15 Tahun 2015, Penta Helix Model is a design of integration between five sectors which are coordinated with each other.<sup>86</sup>

## **Government**

The government has a right to create policy and regulation towards the other four sectors in order to create an orderly industrial activities in Indonesia. The role of government towards education and research centers must be executed well by investing in research activity in order to get a new scientific idea which could be applied to create pro-environment policy. The government should also build infrastructure that supports the development of industry and economic activities of the society.

## **Institution**

The institution the writers are mentioning is an institution that gets the right to solve industrial environmental problems, and is independent from the government. This institution would be in charge of valuating the real price of production through a pro-environment economic valuation concept, including externalities that are created by the production activity.

## **Industry**

Penta Helix Model puts the industry at the center of the other four sectors integration. Other sectors apart from industry would encourage the industry to grow, evolve, and be sustainable.

Industry is the main focus. This is a concept that embodies the revitalization of industry for sustainable development.

## **Educational Institution and Research Center**

Educational Institution and Research Center According to Dale & Newman, education is very important to exposing students to develop understanding as they struggle to use their knowledge in novel ways and a skill they will need in their further involvement with sustainable development issues. Moreover, higher education can play a more decisive role in promotion of sustainable development through academic research and university education. Because, the fundamental characteristics of higher education that underline its potential influence on sustainable development can be underlined as follows.<sup>87</sup>

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<sup>86</sup> Aziz, Iwan J. (2010). *Pembangunan Berkelanjutan: Peran dan Kontribusi Emil Salim*. Jakarta: KPG

<sup>87</sup> Niu, D., Jiang, D., & Li, F. (2010). Higher Education for Sustainable Development in China. *International Journal of Sustainability in Higher Education*, 153-162.



Society Two large points that the Penta Helix Model would do towards the society.

(1) Research and educational institute would make society into effective labor, which labor that became effective labor would create a larger output. Other than that, individuals with education would have an investment paradigm that would improve the economy in the future.

(2) Making the society as smart consumers. Education would give understanding or worldview that would make the society has a preference towards goods there are environmentally friendly, so then the smart consumer's decisions would directly support environmentally friendly industries and rejects environmentally unfriendly industries.

## **Conclusion**

It appears that polluted environment is global an issue and world community would bear worst results more as they already faced. As effective response to pollution is largely based on human appraisal of the problem and pollution damage control program evolves as a nationwide fixed cost-sharing effort relying upon voluntary participation, education, research, and advocacy, are lacking in the region as preventive strategy for pollution. Law enforcement strategies to tackle pollution and damage problems Citarum requires strategies at all levels. In terms of legal substance, legal structure structure and legal culture. The rules of the rules below must be adjusted to the rules above.

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