

# Back belts



**ASSIGN  
BUSTER**

## Critical Review of WHO Policy; Use of DDT to combat malaria

Correspondence concerning this assignment should be addressed to : Author

@ dotmail. com Overview Answering to the question, “ Should the WHO

continue to approve the use of DDT to combat malaria? “, I would affirm.

Having worked for WHO (as far as this assignment is concerned), I have

thoroughly reviewed WHO, policy statement on the issue, relevant

researches, relevant database for toxicology and I am convinced that use of

DDT should continue, not only because of its efficacy or cost effectiveness,

but primarily because of its life saving role under constraints. In spite of

knowing that radiation has definite and pronounced, long-term, serious after

effects, why after all it’s use is approved to continue, even in the most

advanced countries? Obviously, because it is a life saving technique.

Similarly to use or not to use DDT is not a matter of option for the

underdeveloped countries; it is rather a matter of survival for them. Since

there is no replacer available at this point in time, we can not afford to wait

(Ban DDT) till tomorrow. When someone is drowning, it is no time to tell him

or her, how to swim. Background DDT, “ dichlorodiphenyltrichloroethane, a

white crystalline powder along with many other synonyms (Safety Data)”,

had been effectively used in preventive control of Malaria, a disease spread

by the vector mosquito. It saved thousands of lives but contrarily it polluted

the environment right from the depth of lakes to the peaks of mountains

through fish and birds of prey, having residues of DDT. Toxicological studies

have found it hazardous to the health of humans and to that of fauna and

flora too. In consideration of serious potentials like being carcinogenic-

Cancer producing, Its Use had been banned in USA and many other

countries. However, it has renewed the spread of disease and malaria is at

<https://assignbuster.com/back-belts-article-samples/>

large, once again. In view of this development, “ WHO (World Health Organization) has approved the use of DDT for IRS; Inside Residual Spraying as one of the three primary means, the other two being insecticide treated bed nets (ITNs) and prompt treatment of confirmed cases with artemisinin-based combination therapies (WHO, 2007)”. Although many countries agreed upon it, yet WHO is on the horns of dilemma regarding this issue. On joining, tasked me with re-evaluation and to forward my educated and considered opinion in favor or otherwise about use of DDT. Types of Toxicological Data To meet the requirements, I decided to work with a three pronged strategy that is; a) to know exactly the WHO stance through in depth study of its policy statement, epidemiological and toxicological evaluation through field surveys, rapid qualitative field tests and detailed quantitative tests,” to determine, pesticide residue in reference to Median Lethal Dose” in certain population through the four phases. “ The disposition of a toxic compound in a biological system is divided into four phases which include: absorption, distribution, metabolism and excretion and they are interrelated (science direct)”. I also planned to study Composition, Origin, Entrance, and Pharmacokinetics. “ Pharmacokinetics refers to metabolism of toxic agents over a period of time, including the four phases or, “ the processes of absorption, distribution, biotransformation, storage and excretion. All of these, processes are collectively known as the disposition of the toxic agent. In studying these processes for specific toxic agents, we can observe the mechanisms responsible (Solecki)”. Exposure and response , associated with DDT Humans, fauna, flora and environment are exposed to the risk of pesticide residue, via production, transportation, food chain, gastro intestinal tract, skin contact, inhalation etc. Being hydrophobic and

<https://assignbuster.com/back-belts-article-samples/>

lipophylic in character, DDT is absorbed in adipose tissue. It has been reported that “ Levels of exposure and the concentrations of DDT in human tissues, milk, and blood have been summarized by Ahlborg et al. (1995). The IARC (1991) and Smith (1999) reported that the mean concentrations of DDT in the population have declined in much of the world: from 5000–10 000 µg/kg to around 1000 µg/kg of milk fat or even lower over the last three decades (Solecki)”. Regarding the human response, it has been reported that, “ A single dose of 6–10 mg/kg bw of DDT resulted in sweating, headache, and nausea, while a dose of 16 mg/kg bw led to convulsions”.

References WHO, Initials. (2007). Global malaria programme the use of ddt in malaria vector control who position statement . Retrieved from

[http://whqlibdoc.who.int/hq/2007/WHO\\_HTM\\_GMP\\_2007\\_eng.pdf](http://whqlibdoc.who.int/hq/2007/WHO_HTM_GMP_2007_eng.pdf)

Mudvayne, , Wikipedia. (n. d.). Median lethal dose. Retrieved from [http://en.wikipedia.org/wiki/Median\\_lethal\\_dose](http://en.wikipedia.org/wiki/Median_lethal_dose)

Judson R, Richard A, Dix DJ, Houck K, Martin M, Kavlock R, et al. 2009. The Toxicity Data Landscape for Environmental Chemicals. *Environ Health Perspect* 117: 685-695. doi: 10.

1289/ehp.0800168 Environmental health perspectives © 1996 the national institute of environmental health sciences (niehs) abstract . (n. d.). Retrieved

from <http://www.jstor.org/pss/3432842> Safety data for ddt. (n. d.).

Retrieved from " <http://msds.chem.ox.ac.uk/>" the page is maintained by the Safety Officer in Physical Chemistry at Oxford University. Solecki, Roland.

(n. d.). Pesticide residues in food 2000 : ddt. Retrieved from [http://www.inchem.org/documents/jmpr/jmpmono/v00pr03.htm#\\_00032310](http://www.inchem.org/documents/jmpr/jmpmono/v00pr03.htm#_00032310) (n. d.).

Retrieved from <http://www.sciencedirect.com/science/article/pii/0041008X74901768>

<http://www.sciencedirect.com/science/article/pii/0041008X74901768>