

SEAHF TRACK 6
SEAHF 2019 Training Course
22-24 January 2019, Madrid -Spain
Natural Resource Management Training Session:
Hydrocarbon /Heavy Metal Clean-up Techniques/Restoration



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Conceptualizing the PC3R Technology[®] [Pollution Construct, Remediation (bio), Restoration and Re-use] requires fusion of biodegradation science-phytobiomes -materiomics transpose pollutant of concerns interaction with of the microbe-pollutants-soil-microbe-water-pollutants-plant-microbe interface' to understand the bioavailability for the treatment solutions without residual toxicology or hydrocarbon footprint and the use of treated landscape for ecological services for sustainable development. Three 'key enabling technologies for the innovation ecosystem for the natural resource management are:

1. Biodegradation science - Microbial inoculants (bioremediation) and microbiomes
2. Phytobiomes - Networks of interactions among plants, their environment, and complex communities of organisms profoundly influence plant and agro-ecosystem health and productivity - restoration/re-use.
3. Materiomics is the 'complete' material system bottom-up design of purpose-specific materials its constituents and structure, properties and processes, function, failure, using biological organisms.

PC3R Technology[®] is service science value-co-creation as transdisciplinary approach to the study, design, and implementation of services systems of complex systems in which specific arrangements of people, materials and technologies take actions that provide sustainable value for biodiversity and development. Technology that can be deployed for agricultural and environmental biotechnology solutions (natural resource management). Award winning SHELL / Nigerian Content Development (NCD) event in 2013 [hydrocarbon bioremediation technology; biofertilizer technology and restoration ecology for polluted ecosystems with agricultural potentials focus on Niger Delta, Nigeria].

Training Outline

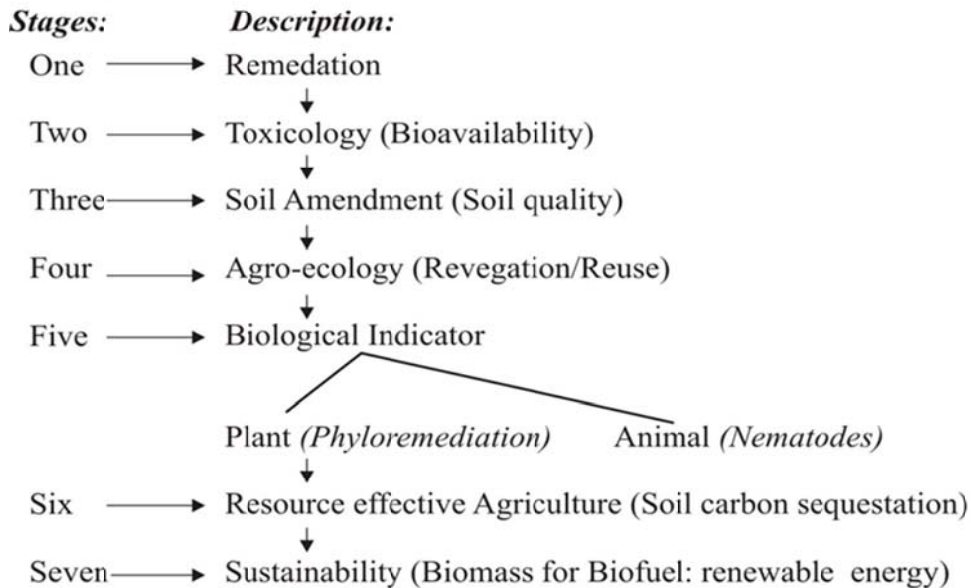
Professional Certificate Award			
N/S	Duration	Course Code	BIORESTORE PC3R TECHNOLOGY® COURSES OUTLINE
	Day 1	PC3R 01	Introduction to Environmental Issues in Oil and Gas Operations / Air Tractor
		PC3R 02	Fundamentals of Oil Spill
		PC3R 03	Environmental Impact Evaluation
	Day 2	PC3R 04	Health, Safety and Environment
		PC3R 05	Contingency Planning & Operations Management
		PC3R 07	Ecological Restoration & Ecosystem Management
		PC3R 08	Community Emergency Service and Entrepreneurship
	Day 3	PC3R 09	Information and Communication Management
		PC3R 010	Environmental Conflicts Management
	Practicals	PC3R 06	Methods/Techniques of Oil Spill Management and Environmental Remediation
			Munitions Biodegradation and Response:
			Innovations in Bioremediation Technologie
			Green and Sustainable Remediation (GSR)
			Innovative Biological Approaches to Pollution Prevention and Waste Management

Natural Resource Management Protocol

Problem: Hydrocarbon Polluted Soil

Solution:

Concept: Remediation - Bioavailability - Soil quality - Revegetation Climatic



Remediation-to-Biofuel Protocol for Niger Delta (Biorestore PC3R® Technology)

Phase 1- Human Capacity Development

Phase 2- Bioremediation (OTAI X®, OBD-Plus® Technology)

Phase 3- Restoration Ecology (OTAI AG®, Gateway Biofertilize®, ARATI OMF®)

Phase 4- Phyto-remediation Bio-energy feedstock cultivation (maize, sugarcane, cassava etc)

Phase 5 – Bio-ethanol Production

Visit <http://aratibiotech.com/PC3RTechnology>

Invited Participants

1. **Extractive Industry:** Hydrocarbon Industry, Oil and gas industry, Sold Minerals, Mining
2. **Military Establishments:** Defence Consulting & Contracting, Defence Leaders, Landmines and Conflicts Zone Reclamations, Munitions’ Wastes Management
3. **Regulatory agencies:** Environmental Pollution Agencies, Urban and Climate Mitigation Advocacy, Policy Analytics, Government Establishments, Sustainable development
4. **Academics:** Researchers, Students and Products developers
5. **Environmental Managers:** Development and Facility Managers, Solid Waste Management.

PC3R® Technology - Snapshot (natural resource management)



You can visit [www.aratibiotech .com](http://www.aratibiotech.com) / human capital development

Costs:

Costs Breakdown		
Duration	Paid by Jan 20, 2019	Paid after Jan. 20,2019
Three Days Course (without Practical's)	US\$600	US\$700
Three Days Course (Practical's)	US\$800	US\$900
Costs includes Tea Break and Lunch meals		

Registration:

1st International Conference on Smart Innovation, Ergonomics and Applied Human Factors (SEAHF)
SEAHF 2019 TRACK 6 Registration | Natural Recourse Management

- <http://aratibiotech.com/seahf-track-6/>
- <http://aratibiotech.com/pc3r-course-outline/>
- <http://aratibiotech.com/natural-resource-management/>
- <http://aratibiotech.com/registration/>