

DR. PETER MICHAEL ODUOR-ODOTE (PhD)
EXECUTIVE CHAIRMAN (TECAFILI)
PROFILE



NAME: Dr. Peter Michael Oduor-Odote (PhD)

DATE OF BIRTH: 2-11-1959

EMPLOYER: TECHNOLOGY AND CARE FOR IMPROVED LIVELIHOODS (TECAFILI)

ACADEMIC BACKGROUND: BSc (Hons) University of Nairobi; MSc (Free University of Brussels; PhD (University of Surrey-Biochemistry and nutrition)

CONTACTS: podote@gmail.com ; tecafili@gmail.com

FIELD OF EXPERTISE: Blue Economy; Fisheries Value Addition, Post-Harvest Technologies, Aquaculture (Feeds and food); Natural products

INTERESTS: Green technologies, Environment, Preventive health, Food Security and Nutrition, Communication, Blue Economy, Value addition products including marketing; Technologies for post-harvest control; Feeds; Bioprospecting; Capacity building, Consultancies.

POSITION: Executive Chairman

PREVIOUS INSTITUTIONS/ APPOINTMENTS--Principal Research Scientist (Kenya Marine and Fisheries Research Institute; Business Development Manager, KMFRI Enterprise Services;

PATENTS:

1. ..“Improved Fried Fish Display Box” by Oduor-Odote Peter Michael. Utility Model 151. Ref: KE/u/2016/658

2. “Rack-dried Kimarawali (Dagaa) in soy sauce by Oduor-Odote Peter Michael: Category-Utility Model. 150: KE/U/2016/659

3.“Hybrid Windmill-solar-tunnel Dryer” by Oduor-Odote Peter Michael, Douglas Shitanda & Gareth Kituu. Category: Utility Model. NUMBER 152. Ref: KE/U/2016/660

4 “Glass Panel Solar Powered Tunnel Dryer” Utility Model Number 112. 22nd July 2016

PUBLICATIONS:

1. Odoli, C. O.; Owiti. H.H.; Mwamburi, J.; **Oduor-Odote, P.**; Nyaboke, H.; Nyamweya, C., Christopher M. Aura, **(2023)** Effectiveness of co-management regime in African Great Lakes Fishery: A case study of Lake Victoria, Kenya. Aquatic Ecosystem Health and Management 25(4):28-36 DOI: 10.14321/ae hm.025.04.28

2. Josephine Marigu.; **Peter Oduor-Odote.**; Cyprian Odoli.; Raymond Ruwa.; Rael Achieng’.; Maurice Omega. A preliminary assessment of the post-harvest fish losses along selected fish supply chains in Kwale County, Kenya. Kenya Aquatica Volume 8 (1)

3. Odoli Ogombe Cyprian.; Kolbrun Sveinsdottir.; **Peter Michael Oduor-Odote** and Sigurjon Arason (2021). Marketing potential of improved dried sardine (*Sardinella gibossa*) and capelin (*Mallotus villosus*) in the Southern Kenyan coast. African Journal of Food Science Vol. 15(4) pp. 162-168, April 2021

4. **Oduor-Odote P.M.**, Shitanda D. , Kituu G., Obiero M. Ruwa R.K (2021) Comparative Drying Performance of Mackerel (*Rastrelliger kanagurta*) in a Solar Tunnel Dryer and an Open-air Raised Drying Rack . *Aquatica* Vol 6 Issue No. 1; 32-40
5. **Oduor-Odote, P.M.**, Shitanda D.; Obiero M (2021) Drying Characteristics of Siganids in a Sand-Base Solar Tunnel Dryer and a Traditional Rack Dryer. *Kenya Aquatica* Vol 6 Issue No. 1; 41-51
6. Obiero M.O.; Odoli CO.; **Oduor Odote P M.**; Ruwa, RK and Omega M.O (2019). Shelf Life Assessment of Hot Smoked African Catfish Stored Under Different Storage Conditions from Lake Kenyatta, North Coast, Kenya. *WIO Journal of Marine Science* 18 (1) 2019 1-9
7. Awuor JF.; Obiero K.; Munguti J.; Oginga JO.; KyuleD.; Opiyo M.A.; **Oduor-Odote P.**; Yongo E.; Owiti H.; Ochiewo, J (2019). Market Linkages and Distribution Channels of Cultured, Captured and Imported Fish in Kenya *Aquaculture Studies*, 19(1), xx-xx
http://doi.org/10.4194/2618-6381-v19_1_06
8. Cyprian O.O; **Oduor-Odote, PM** and Arason S (2019). The influence of lipid content and pretreatment methods on protein conformation in fish (*Capelin, Mallotus villosus*) during smoking and drying. *Food Science and Nutrition* DOI: 10.1002/fsn3.980.
9. **Oduor-Odote PM (2019)** : Effect of natural antioxidants on protein and lipid oxidation in fish (*Siganus sutor*) processed in a locally fabricated hybrid windmill-solar tunnel dryer :**PhD Thesis, University of Surrey, UK**
10. **Oduor-Odote Peter**; Shamasundar A.; Booman AC.; Nazlin KH.; Maria A.and Zagarramurdi A (2016): Effect of Raw Material Quality on Quality and Yield of Dried Fish Products. *International Journal of Food Processing Technology* 3: 54-61
11. **Odote, P. M. O.**; G. M. Kituu.; M. Obiero.; R.Ruwa and N. H.Howell (2015). “Performance evaluation of hybrid thin layer solar tunnel-windmill dryer in the drying of brined and non-brined Tafi (*Siganus sutor*) Fish. *AgreInt. CGIR* Vol. 17 No. 1. Pp 273-283
12. Ogongo Bernard Ochieng, Musungu Kathleen Khakasa and **Odote Peter Oduor; (2015)**; Observation of the Saxitoxin Producing Microalgae in the Kenyan Kilindini Port Creek Waters; *Journal of Fisheries and Aquatic Science*, 2015 ISSN 1816-4927 / DOI: 10.3923/jfas.2015.
13. Ogongo Benard Ochieng, **Odote Peter M. Oduor**, Mlanda Mwangemi Nyale (2015). Effects of Vacuum packaging on the Microbiological, Chemical, Textural and Sensory changes of the Solar Rack Dried Sardines during Chill Storage. *Bacteriology Journal* 5 (1) : 25-39. ISSN 2153-0211/DOI : 10.3923/bj
14. Ogongo Benard Ochieng’, **Odote Peter Michael Oduor** and Mlanda Mwangemi Nyale (2015). Biochemical and Nutritional quality of sardines using raised solar rack dryers off Kenyan coast. *Journal of Food Resource Science* 4 : (2) :33-42. Issn 2244-3550/DOI 10.3923/jfrs
- 15.Odoli, C.O.; **Oduor-Odote, PM** ; Ohowa B ; Onyango S.O. (2013) :Evaluation of fish handling techniques employed by artisanal fishers on quality of Lethrinids and Siganids fish genera at landing time along the Kenyan coast using sensory and microbiological methods. *AJFAND* Vol.13 ; No.5 8167-8186
16. Odoli C.O. ; **Odote, P.O** ; Lauzon, H ; Mttinsdottir E and Arason, S (2013) :Microbiological quality and shelflife of fresh packaged Tilapia fillets stored under different chill temperatures. *Journal of Microbiology, Biotechnology and Food Sciences* 2 (4) :2431-2455
17. **Oduor-Odote P.M.** ; Shitanda D. ; Obiero M and Kituu M.G.M (2010). Drying Characteristics and some quality attributes of *Rastrineobola argentea* (Omena) and *Stolephorus delicatulus* (Kimarawali) *African Journal of Food Agriculture and Nutrition Development* Vol. 10 No. 8

18. **Oduor-Odote P.M.** ; Obiero M and Odoli C (2010) Organoleptic effect of using different plant materials on smoking of marine and freshwater catfish. African Journal of Food Agriculture and Nutrition Development Vol. 10 No. 6
19. **Oduor-Odote** and Obiero, M.O (2009) Lipid Oxidation and Organoleptic Response to Some Smoked Marine Fish in Kenya (2009) African Journal of Food Agriculture and Nutrition Development Vol. 9 No. 3
20. GM Kituu, D Shitanda, CL Kanali, JT Mailutha, CK Njoronge, JK Wainaina and **PMO Odote (2009)** Influence of Brining on Drying Characteristics of Tilapia (*Oreochromis Niloticus*) in a Glass covered Solar Tunnel Dryer. Agricultural Engineering International: **The CIGR Ejournal. Manuscript number. EE 1349, Vol.XI. August 2009**
21. **Oduor-Odote, P.M** and Kazungu J.M. (2008). *The Body Composition of Low Value Fish and their Preparation into a Higher Value Snack Food.* Western Indian Ocean Journal of Marine Sciences. Vol 7 No 1 pp 111-117
22. **Oduor-Odote, P.M. ; Ohowa, B.O. ; Obiero, M. (2008).** Performance of Improved and Traditional Fish Smoking Kilns Introduced in the Tana Delta Area of Kenya. Samaki News. Vol. V No 1 April 2008 p23-28
23. **Oduor-Odote P.M,** Struszczyk MH, Peter MG. (2005). *Physicochemical properties of Chitosan in Some Crustacean Species from Kenya and in Blowfly larvae.* Western Indian Ocean Journal of Marine Sciences Vol 4 No.1 p 99-107
24. **Oduor, P.M. (2003)** Improved Utilization of some low Value Fish in Kenya –FAO Fisheries Technical Report No. 734 p 21-22. Report of the Regional Workshop on Approaches to Reducing Shrimp Trawl Bycatch in the Western Indian Ocean, Mombasa. April 13th -15th 2003
25. **Oduor PM 2000.** – A deep look at Chitin. Windows Vol 11. No.2 p10.
26. **Oduor PM, 1996;**-Some quality assessment studies on shrimp *Pandalus borealis* stored in Ambient Temperature with Ascorbic Acid and Sodium Metabisulphite and in Chilled Sea Water. 1st Pan African in Biochemistry and Molecular Biology (Book of Abstracts).In Nairobi.
27. **Oduor PM 1991** :MSc. Thesis-`Effects of Salbutamol, Clenbuterol, Fenoterol and Isoprotrenol on Body Compstion and Growth of African Catfish *Clarias gariepinus* Burchell 1822`

PROPOSALS SUBMITTED AND FUNDED -2012-2024

- 1.“Scaling up silver cyprinid (*Rastrineobola argentea*) climate-smart and value-added post-harvest technologies for economic empowerment of the riparaian communities of Kenya’s Lake Victoria Basin”. Funding: USAID Feed the Future Fish Innovation Lab, Missisipi State University, USA
- 2.Improving Food and Nutrition Security in Kenya through development of Affordable, Safe and Efficacious Fish Powder Funding: USAID Feed the Future Fish Innovation Lab, Missisipi State University, USA
- 3.Climate-Smart Technologies for Reducing Aquatic Food Waste and Loss Phase I (Kenya, Bangladesh, Tanzania, Mozambique, Nigeria).**Work package 3 (WP3)** Asia-Africa BlueTech Superhighway Project (ABBS): Funding led by WorldFish
4. Eco-innovative technologies for improved nutrition, sustainable production and marketing of agroecological food products in Africa. Funded by EU HORIZON-CL6-2023-FARM2FORK-01-19 under Grant agreement under1011136739 **(2024 January to December 2026): To be implemented in Uhoho East, Siaya County**
- 5.“Upgrading of silver cyprinid (*Rastrineobola argentea*) value chain through multi-stakeholder partnerships and novel climate-smart postharvest processing technologies and practices for improved rural livelihoods.” Funded by FARA through AIREA through (OACPS) through ACP-Innovation Fund **(2022-2024): Being implemented in Dunga Kisumu and Marenga Omena Beach, Busia**

6. Development of cooling and drying technologies for fish in Miguru Bay. SolCoolDry Project II being implemented at Muhuru Bay Migori County: 2023-2024 Funded by BMEL/ (Germany)
7. Milkfish (*Chanos chanos*) and Kimalawari (*Stolephorus delectatus*) Solar Drying-Cooling Technology, Value Addition and Quality Assurance. BMEL/SOLCOOL (2019-2023) Implemented in Mwazaro, South Coast Shimon
8. Possibility of Commercializing and Exporting the Omena Fishery in Karungu through improved drying technologies. Project funded by VIVA MUSICA in Brussels, Belgium (2021)
9. “Bacteriophage discovery – revisiting old strategies for killing clinical isolates of multidrug resistant bacterial pathogens (2018)” Department of Defense, Peer Reviewed Medical Research Program (PRMRP) (Dr. Lillian Musila; Willie Sang, Rukia Kibaya , **Peter Oduor-Odote**, E. K Muge , Atunga Nyachio)
10. Improvements in the “Fish Cold chain, dry chain, smoked and fried chain” in the Quality control and value addition sub-component of the World Bank Kenya Coastal Development Project 2012-March 2015. World Bank Project
11. “Improving Food Security by Reducing Post Harvest Losses in the Fisheries Sector” Acronym SECUREFISH Number EC FP7 298282. (2012-2015: EU Funded 2012-2015)

PROPOSALS SUBMITTED AND STATUS -2002-2012

1. “Community involvement at Gazi and Shimon in production and marketing of value added fish products by improved drying and fish smoking methods for better Income, Improved Livelihoods and Food Security”. **Funded by Lighthouse Foundation (2010)**
2. A Hybrid Solar Tunnel Dryer and Windmill system for Fish Drying at Kipini in the North coast of Kenya. Funded by National Council for Science and Technology (2009)
3. Optimal use of Locally Available Trees or Tree Products for Smoking of African and Marine catfish to prevent Post Harvest Losses and Improve Quality as a Measure for Conservation of Aquatic Resources in Kipini and Tana-Delta Areas of Kenya. By Peter M. **Oduor-Odote** and Dr. Douglas Shitanda (JKUAT) **Funded by** Commission for Higher Education, (2008)
4. Emerging Issues on Improved Fish Processing by Smoking and Solar Drying for Food Security and Environment Conservation. By Peter M. **Oduor-Odote**. **Funded by** Lighthouse Foundation, Germany (2007).
5. Influence of Neem, Prosopis, Acacia Trees and Coconut husks on Quality and Post Harvest Losses of Smoked Marine and African catfish in Kipini and Tana-Delta Areas of Kenya **Funded by** WIOMSA (2007)
6. Development of an integrated solar tunnel dryer for fish drying along Lake Victoria- by Prof. Douglas Shitanda, Peter M. **Oduor-Odote**, V. Shilayo, J. Bonjoyereire. Year 2. Funding renewed by VIC RES (2006-2010)
7. Utilization of Low value fish by processing. **EU INCOII** Funded by European Union (2002-2005)-

ELECTRONIC VALUE USE OUT-REACH MATERIALS IN YOUTUBE

1. A GUIDE FOR SOLAR DRIED MARINE FISH
https://youtu.be/Mo0iz_kFRIU
2. A GUIDE FOR FISH SMOKING AND DRYING
<https://youtu.be/PBedIJQO8OY>
3. A GUIDE TO FISH SMOKING
<https://youtu.be/j6g8p7XT0X8>
4. A GUIDE TO FISH SOLAR DRYING
<https://youtu.be/HU4kdFPBAhQ>

5. A GUIDE TO FISH SMOKING

<https://youtu.be/umipV3c7A3c>

6. HYBRID WINDMILL SOLAR TUNNEL DRYER

https://youtu.be/ulqC_g2bvO4

7. THE IMPROVED FRIED FISH DISPLAY SHELF: “THE MAMA KARANGA BOX”

<https://www.youtube.com/watch?v=SrXXGShh67g>

8 .LOW VALUE FISH UTILIZATION BY EXTRUSION

<https://youtu.be/grJciU4WV9k>

9.POST HARVEEST TECHNOLOGIES AT THE COAST

https://youtu.be/3fCheq9w_eY