CURRICULUM VITAE

Name: Johnson Sunday Ajose **OSHO**
Date of Birth: 6th December 1949
Department: Forest Resources Management
Present Appointment: Professor-1998
Date of First Appointment: 01 March 1984

University Education

(a) University of Ife, Nigeria 1968-1971
(b) Iowa State University, Ames, USA. 1975-1977
(c) University of Ibadan, Nigeria 1984-1988

Academic Qualifications

(a) B.Sc. (Hons) Mathematics, June 1971, University of Ife
(b) M.Sc. Statistics, 1977, Iowa State University
(c) Ph.D. Forest Biometrics, September 1988, University of Ibadan

Scholarship, Fellowships and Prizes

(a) Federal Government Undergraduate Scholarship 1969-71
(b) Federal Government Postgraduate Scholarship 1975 77
(c) British Council Fellowship, 1987-1988
(d) Swedish Institute Fellowship, 1988-1989
(e) Melon Foundation Fellowship, 1993-1994

Honours, Distinctions and Membership of Learned Societies

(a) Member, Forestry Association of Nigeria
(b) Member, Nigeria Statistical Association
(c) Member, Ecological Association of Nigeria
(d) Member, International Biometric Society
(e) Member of Editorial Board, Nigerian Journal of Tree Crop Research

Details of Teaching Experience at University Level

Undergraduate

(1) FRM 210: Introduction to Natural Renewable Resources
(2) FRM 320: Forest Biometrics I
(3) FRM 457: Forest Biometrics II

Postgraduate

(4) FRM 711: Statistics in Renewable Natural Resources
(5) FRM 731: Forest Inventory Analysis
(6) FRM 732: Advanced Forest Mensuration

(7) FRM 734: Applied Regression Analysis

Student Supervision

B.Sc. -20 Projects (successful)
M.Sc.-15 Dissertations (Successful)
Ph.D. – 3 Thesis (Successful); 3 Students still in progress

Experience

(a) Sub-Dean (Forestry) 1989-1991
(b) Rep.Senate Computer Committee (1986-87)
(c) Ag. Head, Department of Forest Resources Management (1997-1999)
(d) Head, Department of Forest Resources Management (2002-2005)

Others

Reviewer: Nigerian Journal of Science (1992-1993)
Journal of Agric Science and Technology (1993-94)
Journal of Tropical Forest Science (1995-1998)

Research

(i) Completed

1. Stand forecasting models in the Tropical Rainforest of South Western Nigeria
2. Succession modeling in Tropical Moist Forests
3. Development of Models for the economics harvesting of uneven-aged natural forests

(ii) In Progress

1. Quantitative methods for evaluating the effects of Agroforestry
2. Long-term Tree Population dynamics in response to changes in logging intensity in Tropical Rainforest of Southwestern Nigeria
3. Development of Demographic models for some indigenous tree species in Tropical Rainforest

(iii) Dissertation and Thesis

Ph.D. Thesis: J.S.A. Osho (1994). 'Tree Population Dynamics in the Tropical Moist Forest of South Eastern Nigeria

Publications

(i) Books or Chapters in Books Already Published: Nil

(ii) Patents: Nil

(iii) Articles that have already appeared in Learned Journals

1. **Osho, J.S.A.(**1983): Volume predictions from stump diameter for teak (*Tectona grandis* L.F.) in Onigambari Forest Reserve. *Nigerian Journal of Forestry.* Vol.13 (2): 364-368.
2. **Osho, J.S.A.(**1985): A review of markov models for studying dynamic changes. Proceedings of the 16th Annual Conference of the Forestry Association of Nigeria, pp.370-379.
3. **Osho, J.S.A.(**1988): A Sampling design for the continuous forest inventory of the Nigerian rain forests. *Journal of Tropical Forest Resources.* Vol.4: 29-36.
4. **Osho, J.S.A.(**1985): An outline of data based and processing system for forest inventory in Nigeria. *Journal of Tropical Forest Resources*. Vol.4: 37-44.
5. **Osho, J.S.A**.(1989): A computer programme for the estimation parameters of weibull distributions in forest stands. *Nigerian Journal of Forestry.* Vol. 19(2):10-21.
6. **Osho, J.S.A**. and Falaye, A.E.(1989): A mathematical model for growth prediction of tilapia (*Orechromis niliticus*) under culture conditions. *Journal of West African Fisheries*. Vol. 4: 232-238.
7. **Osho, J.S.A**. and Akinyemi, O. (1989): Estimation of maximum sustainable fish yield (MSY) of Lake Asejire Fisheries from short term data. Proceedings of the 4th Annual Conference of the Nigerian Association for Aquatic Sciences. pp. 56-60.
8. **Osho, J.S.A**.(1989): Timber harvesting policy as a major cause of forest decline in Nigeria. A case study of Idanre Forest Reserve. Proceedings of the 2nd Biennial Conference of the Ecological Society of Nigeria.
9. **Osho, J.S.A**.(1989): Application of a continuous time Markov chain to secondary succession in Nigerian tropical moist forest. *Nigerian Journal of Science.* Vol. 24 (1&2): 167-170.
10. **Osho, J.S.A**.(1990): Distribution of diameters in an uneven-aged Nigerian rain forest: A comparison of Weibull distribution with matrix model. *Nigerian Journal of Forestry.* Vol. 20(1): 41-47
11. **Osho, J.S.A**. and Akinsanmi, F.A. (1990): Simulation studies on harvesting patterns of Timber from a Nigerian tropical moist forest. Nigerian Journal of Forestry. Vol. 20 (1): 57-62.

12. **Osho, J.S.A**. (1990): Stochastic models for secondary succession in a Nigerian tropical rain forest. *Nigerian Journal of Science*. Vol.2: 203-213.
13. **Osho, J.S.A**.(1991): Matrix model for tree population projection in tropical rain forest of South Western Nigeria. *Ecological Modelling*. 59: 247-255.
14. Ayodele, I.A. and **Osho, J.S.A.** (1991): Distribution patterns of large mammals in Old Oyo National Park. *Nigerian Journal of Forestry*. Vol.21 (1&2): 29-34.
15. **Osho, J.S.A**.(1991): Estimation of the expected revenues of mixed hardwoods under rotation ages in a Nigerian Tropical Moist Forest. *Nigerian Journal of Forestry*. Vol.21: 13-17.
16. **Osho, J.S.A**.(1994): Maximum Likelihood Estimation of the parameters of log-normal distribution from growth rate sample. Journal of West African Science Association. 31: 39-47.
17. **Osho, J.S.A**. and Anjonima, G.N.(1994): Comparative study of the growth and yield of some multipurpose trees in a tropical rain forest of South Western Nigeria. The Indian Forester. Vol. 125 (9): 855-865.
18. **Osho, J.S.A**.(1995): Optimal Sustainable Harvest Models for a Nigerian Tropical Rain Forest. *Journal of Environmental Management*. Vol. 44: 18-64.
19. **Osho, J.S.A**.(1995): Modelling the Tree Population dynamics of the most abundant species in a Nigerian Tropical Rain Forest. *Ecological Modelling*. 89: 175-181.
20. **Osho, J.S.A**.(1996): An evaluation of some whole stand level models for predicting multi-species basal area in a tropical rain forest . *Journal of Tropical Forest Science* . Vol. 9(3): 329-339.
21. **Osho, J.S.A**.(1996): Economic Evaluation of a Gmelina arborea Plantation in Oluwa Forest Reserve, Ondo State, Nigeria. *Journal of Tropical Forest Resources*. Vol. 12: 32-42.
22. Famuyide, O.O., Adeyoju, S.K. and **Osho, J.S.A**.(1997): Household income and the ranking of fuelwood, kerosene and electricity: A case study of Ilesa Zone, Osun State, Nigeria. *Nigerian Journal of Forestry*. Vol. 1: 6-9.
23. **Osho, J.S.A**.(1998): The demography of some indigenous tree species in a tropical rain forest in South Western Nigeria. Nigerian Journal of Tree Crop Research. Vol. 2: 1-11.
24. **Osho, J.S.A**. and Anjonina, G.N.(1998): Growth Matrix Models for some Multipurpose Tree species in a Tropical Rain Forest in South Western Nigeria. *Nigerian Journal of Tree Crop Research*. Vol. 2: 51-63.

25. Idisi, P.O. and **Osho, J.S.A**. (1999): An explanation of Production elasticities and coefficients in the farming system of humid Nigeria. Jouranl of Arid Zone Economy. Vol. 3(2): 183-201.
26. Idisi, P.O. and **Osho, J.S.A.** (2000): Proper application of the coefficient of Multiple Determination (R^2) in model selection. DAN-MASANI: *A Multi-Disciplinary Journal*. 141-146.
27. Idisi, P.O. and **Osho, J.S.A**. (2000): Production Elasticities and Coefficients of key Agron. Economy variable in Agroforestry System in Humid Parts of Nigeria. *Journal of Economics and Allied Fields*. Vol. 1: 11-26.
28. **Osho, J.S.A**. and Falaye, A.E. (1998): Prediction of Fish population Growth and Yield with Matrix model under an aquacultural system. *Journal of West African Fisheries.*Vol. 7.
29. Adesoye, P.O. and **J.S.A. Osho** (2004): Size class prediction system for Nauclea diderichii (De wild &Th. Dur) Stands in a forest Reserve in South-West Nigeria. Bowen Journal of Agriculture Vol.1 (1): 67-77.
30. Adesoye, P.O. and **J.S.A. Osho** (2006): Interim assessment of some inter-tree competition indices for stem growth prediction of *Nauclea diderichiii* (De wild & Th.Dur) trees in Omo Forest Reserve, Nigeria. Nigeria Journal of Forestry. Vol. 36 (1&2): 19-31.
31. Oyebade, B.A., **Osho, J.S.A**, Ekeke, B.A. and Ezenwaka, J. (2006): Diagnostic evaluation of Timber for exploitation in Osun State, Nigeria. *Nigerian Journal of Forestry*. Vol. 34(1): 43-54.
32. Ajayi, S., **Osho, J.S.A**. and Ijomah, J.U. (2006): The use of DBH and Stem Height to determine Tree Volume Equation for Gmelina arborea (ROXB) plantation in Ukpon River Forest Reserve, Cross River State, Nigeria. *Global Journal of Agricultural Sciences* 5(2): 141-146.
33. Ajayi, S., **Osho, J.S.A**. and Anyaorah, C.N. (2006): Allowable cut for Sustainable Management of *Gmelina arborea* plantations in Ukpon River Forest Reserve, Cross River State, Nigeria. *Journal of Sustainable Tropical Agricultural Sciences*. 21: 61-68.
34. Ajayi, S., **Osho, J.S.A**. and Ijomah, J.U. (2006): Using heights of dominant and co-dominant Gmelina trees for predicting Site Index in Ukpon River Forest Reserve, Cross River State, Nigeria.*Global Journal of Agricultural Sciences.* 5(2): 161-165.
35. Ureigho, U.N. and **J.S.A. Osho** (2006): Application of Non-Linear height and diameter growth models for the management

of Nauclea diderrichii (De Wild & Th.Dur) in a Tropical Rain Forest. *European Journal of Scientific Research*. Vol.15 (2): 277-294.

36. Chukwuka, K.S., Ogunyemi, S. **Osho, J.S.A**., Atiri, G.I. and Muoghahi, J.I. (2007): Ecophysiological Responses of Tithonia diversifolia (Hemsl) A. Gray in Nursery and Field conditions. *Journal of Biological Sciences*. Vol. 7(5): 771-775.

37. Ajayi, S., **Osho, J.S.A**. and Anyaorah, C.N. (2007): Development and use of Weibull Distribution models for diameter class determination in Gmelina arborea (roxb) plantation in Ukpon River Forest Reserve, Cross River State, Nigeria. *Journal of Sustainable Agriculture and Environment* (9) 2: 168-175.

Books, Chapters in Books and Articles Already Accepted for Publications

38. **Osho, J.S.A**. (1994): Application of a Matrix Model for Population Projection of Stombosia Postulala in a tropical rain forest of South Western Nigeria. *Journal of West African Science Association*

39. **Osho, J.S.A**. and Ajayi, S.S. (1998); Linear Programming approach to the management of Large Scale Gmelina arborea plantations in a Nigerian Rain Forest. GEGGAD *Journal of Development Studies*

Research Reports/Monographs

40. **Osho, J.S.A**. (1977): Comparisons of Radio Imunoassay models and model fitting procedures. Snedecor Statistical Laboratory Department of Statistics. Iowa State University, ames. 25pp.

41. Lachernbruch, P., Woolson, P.B., and **Osho, J.S.A**. (1980): On small sample properties of the Generalized signed Rank and Generalized sign Tests. 21pp.

42. **Osho, J.S.A**. (1997): Guidelines for the development of Forest. Statistical information system in Ekiti State, Nigeria. A Report prepared for the Department of Forestry, Ministry of Agriculture and Rural Development, Ado-Ekiti. 10pp.

43. Fasehun, F.E., Sanwo, S.K., Akinyosoye, V.O., Onilude, M.A., **Osho, J.S.A**. and Bada, S.O. (1993): Review of the wood based sector in Nigeria. Report prepared for World Bank/FORMECU. 185PP.

44. **Osho, J.S.A** (1998): Agroforestry Education in the University of Ibadan, Nigeria. 3rd General Meeting of ICRAF/ANAFE, Nairobi, Kenya. 18pp.
45. **Osho, J.S.A**. (1998): Design and Analysis of Experiments: Guidelines and Application in Agriculture and Forestry. 80pp.

Comments on Publications

I have a quantitative orientation and expertise in the area of Forest Biometrics. My research

work involves the applications of Mathematics and Statistics to prescribe solutions to the

problems of the management of forest resources. My publications can be grouped into three

non-mutually exclusive areas of research: I, II & III

I. Growth and Yield Modelling

My contributions in this area of research summarize the development of growth matrices in the modeling of tree population dynamics. I have succeeded in the development of some special matrices which can be applied to any tropical rainforest to study tree population changes. Publications in the area include: 9, 12, 13, 18 &19.

II. Forest Exploitation Models

Unregulated timber exploitation has resulted in the destruction of natural tropical rainforests in most developing countries. With the matrices developed for the natural tropical rainforest, I have been able to use them to formulate sustainable harvest models for the tropical rainforest. I have been able to prescribe how much to take from a natural forest in order to guarantee the recovery of the exploited forest. This also allowed for the prediction of residual stock for some cutting cycles. Relevant publications include: 11, 15 & 17.

III. Econometric Analysis

Forestry sector analysis is essential for the development of natural renewable resources and for the progress and development of forest industries in particular. The Management Boards of Forest Industries are often faced with the task of making decisions on what trees to plant, where to plant, when to cut timber and the consequences of their actions. My econometric analyses have been able to provide some quantitative parameters for evaluating such

decisions. These same parameters allow us to quantify in some way, the contribution of this vital sector to the National Economy. Publications in the area include: 20 & 26.

Ten best publication

1. **Osho, J.S.A**.(1989): Application of a continuous time Markov chain to secondary succession in Nigerian tropical moist forest. *Nigerian Journal of Science.* Vol. 24 (1&2): 167-170.
2. **Osho, J.S.A.(**1990): Distribution of diameters in an uneven-aged Nigerian rain forest: A comparison of Weibull distribution with matrix model. *Nigerian Journal of Forestry.* Vol. 20(1): 41-47
3. **Osho, J.S.A.** and Akinsanmi, F.A. (1990): Simulation studies on harvesting patterns of Timber from a Nigerian tropical moist forest. Nigerian Journal of Forestry. Vol. 20 (1): 57-62.
4. **Osho, J.S.A.** (1990):Stochastic models for secondary succession in a Nigerian tropical rain forest. *Nigerian Journal of Science*. Vol.2: 203-213.
5. **Osho, J.S.A**.(1991): Matrix model for tree population projection in tropical rain forest of South Western Nigeria. *Ecological Modelling*. 59: 247-255.
6. **Osho, J.S.A**.(1991): Estimation of the expected revenues of mixed hardwoods under rotation ages in a Nigerian Tropical Moist Forest. *Nigerian Journal of Forestry*. Vol.21: 13-17.
7. **Osho, J.S.A**.(1995): Optimal Sustainable Harvest Models for a Nigerian Tropical Rain Forest. *Journal of Environmental Management*. Vol. 44: 18-64.
8. **Osho, J.S.A**.(1995): Modelling the Tree Population dynamics of the most abundant species in a Nigerian Tropical Rain Forest. *Ecological Modelling*. 89: 175-181.
9. **Osho, J.S.A**.(1996): An evaluation of some whole stand level models for predicting multi-species basal area in a tropical rain forest . *Journal of Tropical Forest Science* . Vol. 9(3): 329-339.
10. **Osho, J.S.A**.(1996): Economic Evaluation of a Gmelina arborea Plantation in Oluwa Forest Reserve, Ondo State, Nigeria. *Journal of Tropical Forest Resources*. Vol. 12: 32-42.