PUBLICATIONS by P. K. R. Nair (March 2015)

A. Books, Author of

6. Nair, P. K. R. and Nair, V. D. 2014. *Scientific Writing and Communications in Agriculture and Natural Resources.* Springer, Dordreht, The Netherlands, 143 p. e-book: 2013 ISBN 978-3-319-03101-9; Print: 2014: ISBN 978-3-319-03100-2

5. Nair, P.K.R. 1993. *An Introduction to Agroforestry*. Kluwer Academic Publishers, Dordrecht, The Netherlands. 499 p.
[The book has been translated into Japanese (1996), Spanish (1997) and Thai (2002)]

4. Nair, P. K. R. 1990. *The Prospects for Agroforestry in the Tropics.* World Bank Technical Paper No. 131. The World Bank, Washington, D.C. 77 p.

3. Nair, P.K.R. 1984. *Soil Productivity Aspects of Agroforestry.* Science & Practice of Agroforestry 1. ICRAF, Nairobi, Kenya. 85 p.

2. Nair, P.K.R. 1980. *Agroforestry Species - A Crop Sheets Manual.* ICRAF 003e, ICRAF, Nairobi. 336 p.

1. Nair, P.K.R. 1979. *Intensive Multiple Cropping with Coconuts in India: Principles, Programmes and Prospects*. Verlag Paul Parey, Berlin and Hamburg, 149 p.

B. Books, Edited

9. Nair, P. K. R. and Garrity, D. P. (eds). 2012. *Agroforestry – The Future of Global Land Use* Springer, The Netherlands. 541 p.

8. Kumar, B. M. and Nair, P. K. R. (eds). 2011. *Carbon Sequestration in Agroforestry Systems*. Springer, The Netherlands. 307 p.

7. Kumar, B. M. and Nair, P. K. R. (eds). 2006. *Tropical Homegardens: A Time-Tested Example of Sustainable Agroforestry*. Advances in Agroforestry 3. Springer Science, Dordrecht, The Netherlands. 390 p.

6. Nair, P. K. R., Rao, M. R. and Buck, L. E. (eds). 2004. *New Vistas in Agroforestry*. A compendium for the 1st World Congress of Agroforestry, Florida, USA, 2004. Kluwer, The Netherlands. 475 p.

5. Nair, P. K. R. and Latt, C. R. (eds). 1998. *Directions in Tropical Agroforestry Research*. Kluwer Acad. Publishers, Dordrecht, The Netherlands. 245 p.

4. Krishnamurthy, L., Nair, P.K.R., and Latt, C.R. (eds). 1993. *Directions in Agroforestry: A Quick Appraisal*. Kluwer Acad. Publishers, Dordrecht, The Netherlands. 186 p.

3. Nair, P.K.R., Gholz, H.L. and Duryea, M.L. (eds). 1990. *Agroforestry Education and Training: Present and Future - Proceedings of an International Workshop*. Kluwer Academic Publishers, Dordrecht, The Netherlands. 148 p.

2. Nair, P.K.R. (ed). 1989. *Agroforestry Systems in the Tropics*. Kluwer Academic Publishers, Dordrecht, The Netherlands. 665 p.

1. Steppler H.A. and Nair, P.K.R. (eds). 1987. *Agroforestry: A Decade of Development*, ICRAF, Nairobi, Kenya. 335 p

C. Other Editorial Responsibilities and Accomplishments

1. **Chief Editor (since 2013), Section *Agroecology and Land Use, Frontiers in Environmental Science,*** e-publication www.frontiers.org (in collaboration with Nature Publishing Group).

2. **Editor-in-Chief:** *Agroforestry Systems* Journal, 1994 (volume 28) – 2006 (volume 66). Publisher: Kluwer (now Springer), Dordrecht, The Netherlands.

3. **Editor of a Book Series (since the series started in 2004):** Book Series "***Advances in Agroforestry***"; publisher: Springer, Dordrecht, The Netherlands.

Volumes published in the *Advances in Agroforestry* Book Series

 # 12. Peri, L., Dube, F., and Varella, A. C. (eds). 2015. Silvopastoral Systems in Southern South America. Advances in Agroforestry 12 (in press).

 # 11. Dagar, J. C. and Minhas, P. S. (eds). 2015. Agroforestry for Management of Waterlogged Saline Soils and poor-Quality Waters. Advances in Agroforestry 11 (in press).

 # 10. Dagar, J. C., Singh, A. K., Arunachalam, A. (eds). 2014. Agroforestry Systems in India: Livelihood Security and Ecosystem Services [Foreword by P. K. R. Nair], Advances in Agroforestry 10, 400 p. ISBN 978-94-007-4676-3.

 # 9. Nair, P. K. R. and Garrity, D. P. (eds). 2012. Agroforestry – The Future of Global Land Use. Advances in Agroforestry 9, 541 p. 978-94-007-4675-6.

 # 8. Kumar, B. M. and Nair, P. K. R. (eds). 2011. Carbon Sequestration in Agroforestry Systems: opportunities and Challenges, Advances in Agroforestry 8, 307 p. ISBN: 978-94-007-1629-2.

 # 7. Jose, S. 2010. Agroforestry for Ecosystem Services and Environmental Benefits. Reprinted from *Agroforestry Systems*, Volume 76 (1), Advances in Agroforestry 7, 264 p. ISBN: 978-90-481-3322-2.

 # 6. Rigueiro-Rodríguez, A., McAdam, J. H., and Mosquera-Losada, M. R. (eds). (2008). Agroforestry in Europe [Foreword by P. K. R. Nair], Advances in Agroforestry 6, 452 p. ISBN: 978-1-4020-8271-9.

 # 5. Snelder, D. J. and Lasco, R. D. (eds). (2008). Smallholder Tree Growing for Rural Development and Environmental Service: Lessons from Asia [Foreword by P. K. R. Nair], Advances in Agroforestry 5, 494 p. ISBN: 978-1-4020-8260-3.

 # 4. Jose, S. and Gordon, A. M. (eds). 2008. Toward Agroforestry Design: An Ecological Approach. Advances in Agroforestry 4, 312 p. ISBN 1-4020-4947-2.

 # 3. Kumar, B. M. and Nair, P. K. R. (eds). 2006. Tropical Homegardens: A Time-Tested Example of Sustainable Agroforestry. Advances in Agroforestry 3, 390 p. Springer Science, Dordrecht. ISBN 1-4020-4947-1.

 # 2. Alavalapati J. R. R., Mercer D. E. (eds). 2004. Valuing Agroforestry Systems: Methods and Applications. Advances in Agroforestry 2, 314 p. Kluwer Academic Publishers, Dordrecht, The Netherlands. ISBN 1-4020-2412-6.

 # 1. Nair, P. K. R., Rao M. R., Buck L. E. (eds). 2004. New Vistas in Agroforestry: A Compendium for the 1st World Congress of Agroforestry. Advances in Agroforestry 1, 480 p. Kluwer Academic Publishers, Dordrecht, The Netherlands, ISBN 1-4020-2501-7.

D. Refereed Journal Articles

[Only selected 100 (out of a total of about 200) are listed, in reverse chronological order]

Nair, P. K. R. Grand challenges in agroecology and land-use. Frontiers in Environmental Science 2014. 28 Jan 2014; doi.10.3389/fenvs.2014.00001

Ngatia, L. W., Reddy, K. R., Nair, P. K. R., Pringle, R. M., Palmer, T. M., and Turner, B. L. 2014 . Seasonal patterns in decomposition and nutrient release from East African savanna grasses grown under contrasting nutrient conditions. Agriculture Ecosystems and Environment 188: 12–19. doi: org/10.1016/j.agee.2014.02.004 0167-8809/

¶ Agrell, C., Amoding, A., Bell, S., Bosco, F. Diamond, D., Emnéus, J., Guiseppi-Elie, A., Katusabe, A., Lynch, J., Morse, S., Moussy, F. G., Murtagh, F., Nair, P. K. R., Weathers, P. J. 2014. Transdisciplinary Sustainability: The Council for Frontiers of Knowledge. International Journal of Transdisciplinary Research 7: 1–26.
¶ Authors listed in alphabetical order.

Francesconi, W., Nair, P. K. R., Stein, T.V., Levey, D. J., Daniels, J. C., Cullen L. Jr. 2014. Agroforestry information dissemination and the Social Learning Theory in Pontal do Paranapanema, Sao Paulo, Brazil. The International Journal of Environmental Sustainability, 9: 1–15.

Francesconi, W., Nair, P. K. R., Levey, D. J., Daniels, J., and Cullen, L. 2013. Butterfly distribution in fragmented landscapes containing agroforestry practices in Southeastern Brazil. Agroforestry Systems 87:1321–1338. doi: 10.1007/s10457-013-9640-y

Nair, P. K. R. and Nair, V. D. 2014. 'Solid-fluid-gas': the state of knowledge on carbon-sequestration potential of agroforestry systems in Africa. Current Opinion in Environmental Sustainability 6: 22–27. doi: 10.1016/j.cosust.2013.07.014.

Nair, P. K. R. 2012. Carbon sequestration studies in agroforestry systems: a reality-check. Agroforestry Systems 86: 243–253. doi: 10.1007/s10457-011-9434-z.

Howlett, D. S., Marcose, M. G., Mosquera-Losada M.-R., Nair, P. K. R., and Nair, V. D. 2011. Soil carbon storage as influenced by tree cover in the Dehesa cork oak silvopasture of central-western Spain. J. Env. Monitoring 13: 1897–1904.

Nair, P. K. R. 2011. Agroforestry systems and environmental quality: Introduction. Journal of Environmental Quality 40: 784–790.

Howlett, D. S., Mosquera-Losada M.-R., Nair, P. K. R., Nair, V. D., and Rigueiro-Rodríguez, A. 2011. Soil carbon storage in silvopastoral systems and a treeless pasture in northwestern Spain. J. Env. Qual. 40: 825–832.

Tonucci, R. G., Nair, P. K. R., Nair, V. D., Garcia, R., and Bernardino, F. S. 2011. Soil carbon storage in silvopasture and related land-use systems in the Brazilian Cerrado. J. Env. Qual. 40: 833–841.

Nair, P. K. R., Saha, S. K., Nair, V. D., and Haile, S. G. 2011. Potential for greenhouse gas emissions from soil carbon stock following biofuel cultivation on degraded land. Land Degradation and Development 22: 395–409.

Nair, P. K. R., Nair, V. D., Kumar, B. M., and Showalter, J. M. 2010. Carbon sequestration in agroforestry systems. Advances in Agronomy 108: 237–307.

Saha, S. K., Nair, P. K. R., Nair, V. D., and Kumar, B. M. 2010. Carbon storage in relation to soil size-fractions under some tropical tree-based land-use systems. Plant and Soil 328: 433–446.

Gama-Rodrigues, E. F., Nair, P. K. R., Nair, V. D., Gama-Rodrigues, A. C., Baligar, V. C., and Machado, R. C. R. 2010. Carbon Storage in Soil-Size Fractions under Cacao Agroforestry Systems in Bahia, Brazil. Environmental Management 45: 274–283.

Haile, S. G., Nair, V. D., and Nair, P. K. R. 2010. Contribution of trees to soil carbon sequestration in silvopastoral systems of Florida. Global Change Biology 16: 427–438.

Nair, P. K. R., Nair, V. D., Kumar, B. M., and Haile, S. G. 2009. Soil carbon sequestration in tropical agroforestry systems: A feasibility appraisal. Environmental Science and Policy 12: 1099–1111.

Saha, S. K., Nair, P. K. R., Nair, V. D., and Kumar, B. M. 2009. Soil carbon stock in relation to plant diversity of homegarden systems in Kerala, India. Agroforestry Systems. 76: 53–65.

Takimoto, A., Nair, V. D., and Nair, P. K. R. 2009. Soil carbon sequestration potential of agroforestry practices in the West African Sahel. Agroforestry Systems 76: 11–25.

Nair, P. K. R., Kumar, B. M., and Nair, V. D. 2009. Agroforestry as a strategy for carbon sequestration. Journal of Plant Nutrition and Soil Science 172: 10–23.

Haile, S.G., Nair, P. K. R., and Nair, V. D. 2008. Carbon storage of different soil-size fractions in Florida silvopastoral systems. J. Environmental Quality 37: 1789–1797.

Bellow, J. G., Hudson, R. F., and Nair, P. K. R. 2008. Adoption Potential of fruit-tree-based agroforestry on small farms in the subtropical highlands. Agroforestry Systems 73: 23–36.

Takimoto, A., Nair, P. K. R., and Nair, V. D. 2008. Carbon stock and sequestration potential of traditional and improved agroforestry systems in the West African Sahel. Agriculture, Ecosystems and Environment 125: 159–166.

Takimoto, A., Nair, P. K. R., and Alavalapati, J. R. R. 2008. Socioeconomic potential of carbon sequestration through agroforestry in the West African Sahel. Mitigation and Adaptation of Strategies for Global Change 13: 745–761.

Michel, G.-A., V. D. Nair, and P. K. R. Nair. 2007. Silvopasture for reducing phosphorus loss from subtropical sandy soils. Plant and Soil 297: 267–276.

Zamora, D. S., Jose S., and Nair, P. K. R. 2007. Interspecific competition in a pecan–cotton alleycropping system in the southern United States: production physiology. Can J Bot 84: 1686–1694.

Zamora, D. S., Jose, S., and Nair, P. K. R. 2007. Morphological plasticity of cotton roots in response to interspecific competition with pecan in an alleycropping system in the southern United States. Agroforestry Systems. 69: 107–116.

Nair, P. K. R. 2007. The coming of age of agroforestry. The Journal of the Science of Food and Agriculture 87: 1613–619.

Cole, D. M., White, T. L., and Nair, P. K. R. 2007. Maintaining genetic resources of peach palm (*Bactris gasipaes* Kunth): the role of seed migration and swidden-fallow management in northeastern Peru. Genetic Resources and Crop Evolution 54: 189–204.

Nair, V. D., Nair, P. K. R., Kalmbacher, R. S., and Ezenwa, I. V. 2007. Reducing nutrient loss from farms through silvopastoral practices in coarse-textured soils of Florida, USA. Ecological Engineering. 29: 192–199.

Allen, S. C., Nair, V. D., Graetz, D. A., Jose, S., and Nair, P. K. R. 2006. Phosphorus loss from organic versus inorganic fertilizers used in alleycropping on a Florida Ultisol. Agriculture, Ecosystems and Environment 117: 290–298.

Miller, R. P. and Nair, P. K. R. 2006. Indigenous agroforestry systems in Amazonia: from prehistory to today. Agroforestry Systems 66: 151–164.

Nair, P. K. R., Bannister, M. E., and Allen, S. C. 2005. Agroforestry today: An analysis of the 750 abstracts presented to the 1st World Congress of Agroforestry, 2004. J. of Forestry 103: 417– 421.

Ellis, E. A., Nair, P. K. R., Jeswani, S. D. 2005. The Southeastern Decision Support System (SEADSS): Development of a web-based application for agroforestry planning and tree selection. *Computers and Electronics in Agriculture:* 49: 129– 141.

Nair, P. K. R. 2005. How (not) to write research articles in agroforestry. Agroforestry Systems 64: 5–17.

Allen, S. C., Jose, S., Nair, P. K. R., Brecke, B. J., Nair, V. D., Graetz, D. A., and. Ramsey, C. L. 2005. Nitrogen mineralization in a pecan (*Carya illinoensis* K. Koch)-cotton

(*Gossypium hirsutum* L.) alley cropping system in the southern United States. Biology and Fertility of Soil 41: 28–37.

Allen, S. C., Jose, S., Nair, P. K. R., and Brecke B. J. 2004. Competition for ^{15}N-labeled fertilizer in a pecan (*Carya illinoensis* K. Koch)-cotton (*Gossypium hirsutum* L.) alley cropping system in the southern United States. Plant and Soil 263: 151–164.

Albertin, A. and P. K. R. Nair 2004. Farmers' perspectives on the role of shade trees in coffee production systems: An assessment from the Nicoya Peninsula, Costa Rica. Human Ecology 32: 443– 463.

Allen, S. C., Jose, S., Nair, P. K. R., Brecke, B. J., Nkedi-Kizza, P., and Ramsey, C. L. 2004. Safety-net role of tree roots: evidence from a pecan (Carya illinoensis K. Koch) – cotton (Gossypium hirsutum L.) alley cropping system in the southern United States. Forest Ecology and Management 192: 395–407.

Kumar, B. M. and Nair, P. K. R. 2004. The enigma of tropical homegardens. Agroforestry Systems 61 & 62: 135–154.

Montagnini, F. and Nair, P. K. R. 2004. Carbon sequestration: An under-exploited environmental benefit of agroforestry systems. Agroforestry Systems 61 & 62: 281–298.

Puri, S. and Nair, P. K. R. 2004. Agroforestry research for development in India: 25 years of experiences of a national program. Agroforestry Systems 61 & 62: 437–452.

Kaya, B. and Nair, P. K. R. 2004. Dynamics of Particulate Organic Matter following biomass addition from fallow-improvement species in southern Mali. Agroforestry Systems 60: 267–276.

Wanvestraut, R., Jose, S., Nair, P. K. R., and Brecke, B. J. 2004. Competition for water in a pecan-cotton alley cropping system in the southern United States. Agroforestry Systems 60: 167–179.

Mudhara, M., Hildebrand, P. E., and Nair, P. K. R. 2003. Potential for the adoption of *Sesbania sesban* improved fallows in Zimbabwe: A linear programming-based case study of small-scale farmers. Agroforestry Systems 59: 307–315.

Workman, S. W., Bannister, M. E., and Nair, P. K. R. 2003. Agroforestry potential in the southeastern United States: Perceptions of landowners and extension professionals. Agroforestry Systems 59: 73–83.

Bannister, M. E. and Nair, P. K. R. 2003. Agroforestry adoption in Haiti: the importance of household- and farm characteristics. Agroforestry Systems 57: 149-157.

Bellow, J. G. and Nair, P. K. R. 2003. Understory light availability in stands of trees used in shaded perennial agroforestry systems. Agricultural and Forest Meteorology 114: 197–211.

Nair, P. K. R. 2001. Do tropical homegardens elude science, or is it the other way around? Agroforestry Systems 53: 239–245.

Kaya, B. and Nair, P. K. R. 2001. Soil fertility and crop yields under improved fallow systems in southern Mali. Agroforestry Systems 52: 1–11.

Latt, C. R., Nair, P. K. R., and Kang, B. T. 2001. Reserve carbohydrate cycles in the boles and structural roots of five multipurpose tree species. Forest Ecology and Management 146: 145–158.

Kaya, B., Hildebrand, P. E. and Nair, P. K. R. 2000. Modeling changes in farming systems with the adoption of improved fallows in southern Mali. Agricultural Systems, 66: 51–68.

Viswanath, S., Nair, P. K. R., Kaushik, P. K., and Prakasam, U. 2000. Acacia nilotica in rice fields: a traditional agroforestry system in central India. Agroforestry Systems 50: 157–177.

Latt, C. R., Nair, P. K. R., and Kang, B. T. 2000. Interactions among cutting frequency, reserve carbohydrates and post-cutting biomass production in *Leucaena leucocephala* and *Gliricidia sepium*. Agroforestry Systems 50: 27–6.

Mugendi, D. N., Nair, P. K. R., and Graetz, D. A. 2000. Nitrogen Recovery by Alley-Cropped Maize and Trees from 15 N-Labeled Tree Biomass in the Subhumid Highlands of Kenya. Biology and Fertility of Soils 31: 97–101.

Ellis, E. A., Nair, P. K. R., Linehan, P. E., Beck, H. W., and Blanche, C. A. 2000. A GIS-Based Database Management Application for Agroforestry Planning and Tree Selection. COMPAQ: Computers and Electronics in Agriculture. 27: 41–55.

Long, A. J. and Nair, P. K. R. 1999. Trees outside forests: Agro-, community, and urban forestry. Special Issue of *New Forests*. 17: 145–174.

Mugendi, D. N., Nair, P. K. R., Mugwe, J. N., O'Neil, M. K, and Woomer, P. L. 1999. Alley cropping of maize with calliandra and leucaena in the subhumid highlands of Kenya. Part 1. Soil fertility changes and maize yield. Agroforestry Systems. 46: 39–50.

Mugendi, D. N., Nair, P. K. R., Mugwe, J. N., O'Neil, M. K., Swift, M. J., and Woomer, P. L. 1999. Alley cropping of maize with calliandra and leucaena in the subhumid highlands of

Kenya. Part 2. Biomass decomposition, N mineralization, and N uptake by maize. Agroforestry Systems. 46: 51–64.

Mafongoya, P. L., Nair, P. K. R. and Dzowela, B. H. 1998. Mineralization of nitrogen from decomposing leaves of multipurpose trees as affected by their chemical composition. Soil Biology and Fertility 27: 143–148.

Rao, M. R., Nair, P. K. R. and Ong, C. K. 1998. Biophysical interactions in tropical agroforestry systems. Agroforestry Systems 38: 3–50.

Mugendi, D. N. and Nair, P. K. R. 1997. Predicting the decomposition patterns of tree biomass in tropical highland microregions of Kenya. Agroforestry Systems 35: 187–201.

Mafongoya, P. L., Nair, P. K. R., and Dzowela, B. H. 1997. Multipurpose tree prunings as a source of nitrogen to maize under semiarid conditions in Zimbabwe. 3. Interactions of pruning quality and time and method of application on nitrogen recovery by maize in two soil types. Agroforestry Systems 35: 57–70.

Mafongoya, P. L., Nair, P. K. R., and Dzowela, B. H. 1997. Multipurpose tree prunings as a source of nitrogen to maize under semiarid conditions in Zimbabwe. 2. Nitrogen-recovery rates and crop growth as influenced by mixtures of prunings. Agroforestry Systems 35: 47–56.

Mafongoya, P. L. and Nair, P. K. R. 1997. Multipurpose tree prunings as a source of nitrogen to maize under semiarid conditions in Zimbabwe. 1. Nitrogen-recovery rates in relation to pruning quality and method of application. Agroforestry Systems 35*:* 31–46.

Govindarajan, M., Rao, M. R., Mathuva, M. N., and Nair, P. K. R. 1996. Root dynamics in a hedgerow intercropping system in semiarid highlands of Kenya. Agronomy Journal 88(4): 513–520.

Jama, B. A. and Nair, P. K. R. 1996. Decomposition- and nitrogen-mineralization patterns of *Leucaena leucocephala* and *Cassia siamea* under tropical semiarid conditions in Kenya. Plant and Soil 179: 275–285.

Jama, B. A., Nair, P. K. R., and Rao, M. R. 1995. Productivity of hedgerow shrubs and maize under alleycropping and block planting systems in semiarid Kenya. Agroforestry Systems 31: 257–274.

Brunori, A., Nair, P. K. R., and Rockwood, D. L. 1995. Water harvesting and tree growth in arid regions: a case study from the Negev Desert of Israel. Forest Ecology and Management 75: 41–48.

Follis, M. B. and Nair, P. K. R. 1994. Policy and institutional support for agroforestry: an analysis of two Ecuadorian case studies. Agroforestry Systems 27:223-240.

Chirwa, P. W., Nair, P. K. R., and Kamara, C. S. 1994. Pattern of soil moisture depletion in alley cropping under semiarid conditions in Zambia. Agroforestry Systems 26: 89–99.

Chirwa, P. W., Nair, P. K. R., and Kamara, C. S. 1994. Soil moisture changes and maize productivity under alley cropping with *Leucaena* and *Flemingia* hedgerows in semiarid conditions in Lusaka, Zambia. Forest Ecology and Management 64:231–243.

Muschler, R. G., Nair, P. K. R., and Melendez, L. 1993. Crown development and biomass production of pollarded *Erythrina berteroana, E. fusca and Gliricidia sepium* in the humid tropical lowlands of Costa Rica. Agroforestry Systems 24: 123–143.

Omoro, L. M. A. and Nair, P. K. R. 1993. Effects of mulching with multipurpose-tree prunings on soil- and water run-off under semiarid conditions in Kenya. Agroforestry Systems 22: 225–239.

Erdmann, T. K., Nair, P. K. R., and Kang, B. T. 1993. Effects of cutting frequency and cutting height on reserve carbohydrates in *Gliricidia sepium* (Jacq.) Walp. Forest Ecology and Management 57: 47–60.

Nair, P. K. R. 1991. State-of-the-art of agroforestry systems. *Forest Ecology and Management* 45: 5–29.

Warkentin, M. E., Nair, P. K. R., Ruth, S. R., and Sprague, K. 1990. A knowledge-based expert system for planning and design of agroforestry systems. Agroforestry Systems 11: 71–83.

Bannister, M. E. and Nair, P. K. R. 1990. Alleycropping as a sustainable technology for the hillsides of Haiti: experience of an agroforestry outreach project. American Journal of Alternative Agriculture 5: 51–59.

Nair, P. K. R. 1989. Tropical agroforestry systems and practices. Resource Management and Optimization 7: 225–248.

Jama, B., Nair, P. K. R., and Kurira, P. W. 1989. Comparative growth performance of some multipurpose trees and shrubs grown at Machakos, Kenya. Agroforestry Systems 9: 17–27.

Alvim, R. and Nair, P. K. R. 1986. Combination of cacao with other plantation crops – an agroforestry system in Southeast Bahia, Brazil. Agroforestry Systems 4, 315.

Fernandes, E. C. M. and Nair, P. K. R. 1986. An evaluation of the structure and function of tropical homegardens. Agricultural Systems 21, 279–310.

Nair, P. K. R. 1985. Classification of agroforestry systems. Agroforestry Systems 3, 97–128.

Veragara, N. T. and Nair, P. K. R. 1985. Agroforestry in the South Pacific Region - An overview. Agroforestry Systems 3, 363–379.

Johnson, D. V. and Nair, P. K. R. 1984. Perennial crop-based agroforestry systems in the Northeast of Brazil. Agroforestry Systems 2, 281–292.

Liyanage, M. de S., Tejwani, K. G. and Nair, P. K. R. 1984. Coconut intercropping in Sri Lanka. Agroforestry Systems 2, 215–228.

Nair, P. K. R., Fernandes, E. C. M., and Wambugu, P. N. 1984. Multipurpose leguminous trees and shrubs for agroforestry. Agroforestry Systems 2: 145–163.

Nair, P. K. R. 1982. Agroforestry: a sustainable land use system for the fragile ecosystems in the tropics. Malayan Nature J. 35, 109–123.

Nair, P. K. R. and Balakrishnan, T. K. 1977. Ecoclimate of a coconut plus cacao crop combination on the west coast of India. Agricultural Meteorology 18, 455–462.

Nair, P. K. R. 1977. Multispecies crop combinations for increased productivity from agricultural plantations in the tropics. Gartenbauwissenschaft 42, 145–150.

Talibudeen, O., Page, M. B. and Nair, P. K. R. 1976. The interaction of nitrogen and potassium nutrition on dry matter and nitrogen yields of graminae: Spring wheat. J. Sci. Food Agri. 27, 1179–1189.

Balakrishnan, T. K., Nair, P. K. R. and Nelliat, E. V. 1976. Studies on microclimate of coconut varieties and cacao and cinnamon grown as mixed crops with coconut. Indian J. Met. Hydrol. Geophys. 27, 71–74.

Nair, P. K. R. and Balakrishnan, T. K. 1976. Patterns of light interception by canopies in a coconut + cacao crop combination. Indian J. Agri. Sci. 46, 453–462.

Nair, P. K. R.**,** Varma, R., Nelliat, E. V. and Bavappa, K. V. A. 1975. Beneficial effects of crop combination of coconut and cacao. Indian J. Agri. Sci. 45, 165–171.

Nair, P. K. R. and Talibudeen, O. 1973. Dynamics of K and NO3 concentrations in the root zone of winter wheat at Broadbalk using specific-ion electrodes. J Agri Sci, Camb. 81, 327–37.

Nair, P. K. R. 1973. Quantitative changes in soil microorganisms under rice-based multiple cropping in northern India. Soil Biol. Biochem. 5, 387–389.

Nair, P. K. R., Singh, A. and Modgal, S. C. 1973c. Harvest of solar energy through intensive multiple cropping. Indian J. Agri. Sci. 43, 983–988.

Nair, P. K. R., Singh, A. and Modgal, S. C. 1973b. Preliminary studies on the maintenance of soil fertility under intensive multiple cropping in northern India. Indian J. Agri. Sci. 43, 250–255.

Nair, P. K. R., Singh, A. and Modgal, S. C. 1973a. Cropping patterns involving rice and their management. Indian J. Agri. Sci. 43, 70–76.

Singh, A. and Nair, P. K. R. 1973. Concepts of multiple cropping. *Agricultural Situation in India* 26, 871–874.

Nair, P. K. R. and Singh, A. 1971. Production potential, economic feasibilities and input requirements of five high intensity crop rotations with rice. Indian J. Agri. Sci. 41, 807–815.

E. Book Chapters

[Only selected 50 (out of a total of 70) are listed, in reverse chronological order]

Nair, P. K. R. 2014. Agroforestry systems and practices. In: Van Alfen N. (ed.) Encyclopedia of Agriculture and Food Systems, Vol. 1, pp. 270 - 282. Elsevier, San Diego

Nair P. K. R. 2013. Agroforestry: Trees in support of sustainable agriculture. Module in Earth Systems and Environmental Sciences, Elsevier, 2013. 01-Nov-13 doi: 10.1016/B978-0-12-409548-9.05088-0.; pp. 1–15 (Only e-version)

Nair, P. K. R. 2012. Climate change mitigation and adaptation: A low hanging fruit of agroforestry. In Nair, P. K. R. and Garrity D. P. (eds), Agroforestry: The future of global land use. Springer, Dordrecht, The Netherlands. pp 31–67.

Nair, P. K. R. and Garrity D. P. 2012. Agroforestry research and development – The way forward. In Nair, P. K. R. and Garrity D. P. (eds), Agroforestry: The future of global land use, Springer, Dordrecht, The Netherlands. pp 515–531.

Nair, P. K. R. 2011. Methodological challenges in estimating carbon sequestration potential of agroforestry systems. *In*: Kumar, B. M. and Nair, P. K. R. (eds). Carbon Sequestration in Agroforestry Systems. Springer, The Netherlands. pp. 3–16.

Nair, P. K. R. 2011. Tonucci, R. G., Garcia, R., and Nair, V. D. 2011. Silvopasture and carbon sequestration with special reference to the Brazilian savanna (Cerrado). *In*: Kumar, B. M. and Nair, P. K. R. (eds). 2011. Carbon Sequestration in Agroforestry Systems. Springer, The Netherlands. pp. 145–162.

Saha, S. K., Stein, T. V., and Nair, P. K. R. 2011. The socioeconomic context of carbon sequestration in agroforestry: A case study from the homegardens of Kerala, India. *In*: Kumar, B. M. and Nair, P. K. R. (eds). 2011. Carbon Sequestration in Agroforestry Systems. Springer, The Netherlands. pp. 281–298.

Gama-Rodrigues, E. F., Gama-Rodrigues, A. C., Nair, P. K. R. 2011. Soil carbon sequestration in cacao agroforestry systems: A case study from Bahia, Brazil. *In*: Kumar, B. M. and Nair, P. K. R. (eds). 2011. Carbon Sequestration in Agroforestry Systems. Springer, The Netherlands. pp. 85–99.

Gordon, A. M., Thevathasan, N., and Nair, P. K. R. 2009. An agroecological foundation for temperate agroforestry. *In*: Garrett H.E. (ed). Temperate Agroforestry: Science and Practice. 2nd Edition, pp. 25–44. American Society of Agronomy, Madison, WI.

Nair, P. K. R., Gordon, A. M., and Mosquera-Losada, M.-R. 2008. Agroforestry. In: Jorgensen, S. E. and Fath B. D. (eds), Ecological Engineering, Vol [1] of Encyclopedia of Ecology, 5 vols., pp. 101–110. Elsevier, Oxford, U.K.

Bellow, J. G., Nair, P. K. R., and. Martin, T. A. 2008. Tree – Crop Interactions in fruit-tree-based agroforestry systems in Western Highlands of Guatemala: Component yields and system performance. *In*: Jose, S. and Gordon, A. M. (eds), Toward Agroforestry Design: An Ecological Approach, Advances in Agroforestry 4, pp. 111–131. Springer Science, The Netherlands.

Zamora, D. S., Jose S., Nair, P. K. R., Jones, J. W., Brecke, B. J., and Ramsey, C. L. 2008. Interspecific competition in a pecan–cotton alleycropping system in the southern United States: Is light the limiting factor? In: Jose, S. and Gordon, A. M. (eds) Toward agroforestry design: an ecological approach. Advances in Agroforestry 4, pp. 81–95. Springer Science, The Netherlands.

Jose, S., Allen, S. C., and Nair, P. K. R. 2007. Tree-crop interactions: Lessons from temperate alleycropping systems. *In*: Batish D. R., Kohli, R. K., Jose, S., and Singh H. P. (eds.), Ecological Basis of Agroforestry, pp. 15–36. CRC Press/Taylor&Francis.

Nair, P. K. R. 2006. Whither homegardens? *In*: Kumar, B. M. and Nair, P. K. R. (eds). Tropical Homegardens, pp. 355– 370. Advances in Agroforestry 3. Springer Science, The Netherlands.

Mohan, S., Nair, P. K. R. and Alavalapati, J. A. A. 2006. Financial Analysis of Homegardens: Case Study based in Kerala state, India. *In*: Kumar, B. M. and Nair, P. K. R. (eds). Tropical Homegardens, pp. 283–296. Advances in Agroforestry 3. Springer Science, The Netherlands.

Nair, P. K. R., Bannister, M. E., Nair, V. D., Alavalapati, J. R. R., Ellis, E. A., Jose, S. and Long, A. J. 2005. Silvopasture in southeastern United States: More than just a new name for an old practice. *In*: Mosquera-Losada, M.R., J. McAdam, J., and A. Rigueiro-Rodríguez. (eds), Silvopastoralism and Sustainable Land Management, pp. 72–82. CABI, Wallingford, U. K.

Nair, P. K. R. 2005. Agroforestry: Trees in support of sustainable agriculture. *In*: Hillel, H., C. Rosenzweig, D. Powlson, K. Scow, M. Singer, and D. Sparks, D. (eds), *Encyclopedia of Soils in the Environment*. Vo1 1, pp. 35 – 44. Elsevier, London, U.K.

Drew, W. M., Alavalapati, J. R. R., and Nair, P. K. R. 2004. Determining agroforestry profitability using the policy analysis matrix: A case study from Pohnpei, Federated states of Micronesia. *In*: Alavalapati, J. R. R. and Mercer, D. E. (eds), *Valuing Agroforestry Systems* (vol 2 in the series *Advances in Agroforestry*), pp. 59–78. Springer, Dordrecht, The Netherlands.

Nair, P. K. R. and Nair, V.D. 2003. Carbon Storage in North American Agroforestry Systems. *In*: Kimble, J., Heath, L.S., Birdsey, R.A., and Lal, R. (eds). *The Potential of U.S. Forest Soils to Sequester Carbon and Mitigate the Greenhouse Effect*, pp. 333–346. Boca Raton, FL: CRC Press LLC.

Nair, P.K R. and Nair, V.D. 2002. Carbon Sequestration in Agroforestry Systems. Paper 989. p 989-1 to 989-13. Transactions. World Congress of Soil Science. Bangkok, Thailand. August 14–21, 2002.

Nair, P. K. R. 2001. Agroforestry. *In: Our Fragile World: Challenges and Opportunities for Sustainable Development*, Forerunner to *The Encyclopedia of Life Support Systems* (M. Tolba, ed.) , Chapter 1.25, pp. 375–393, vol. I. UNESCO, Paris, France, & EOLSS, UK.

Alavalapati, J. and Nair, P. K. R. 2001. Socioeconomic and institutional perspectives of agroforestry. *In*: Palo, M., J. Uusivuori, and G. Mery (eds), *World forests, markets and policies* (vol 3 in the series *World Forests*), pp. 71–81. Kluwer, The Netherlands.

Nair, P. K. R., Buresh, R. J., Mugendi, D. N., and Latt, C. R. 1999. Nutrient cycling in tropical agroforestry systems: Myths and science. *In*: Buck, L. E., Lassoie, J. P. and Fernandes, E. C. M. (eds), *Agroforestry in Sustainable Agricultural Systems*, 1–31. CRC Press, Boca Raton, FL.

Nair, P. K. R. 1999. Forestry in the future: think globally, act locally. Keynote paper to the International seminar on Sustainable Forest Management. *In*: Mathema, P., Dutta, I.C., Balla, M.K., and Adhikary, S.N. (eds), *Sustainable Forest Management*, Proceedings of an International Seminar, 31 August to 2 September 1998, pp. 9–17. Institute of Forestry/ International Tropical Timber Organization, Pokhara, Nepal.

Mafongoya, P. L., Dzowela, B. H., and Nair, P. K. R. 1997. Effect of multipurpose trees, age of cutting, and method of drying on pruning quality. *In*: Cadisch, G. And Giller, K. E. (eds), *Driven by Nature*, pp. 167–174. CAB International, Wallingford, U.K.

Nair, P. K. R. 1996. Agroforestry Literature: Trends and Directions. *In*: McDonald, P. and J.L. Lassoie (eds), *Contemporary Core Literature of the Agricultural Sciences: Forestry and Agroforestry*, pp. 74–95. Cornell Univ. Press, Ithaca, N.Y.

Nair, P. K. R., Kang, B. T., and Kass, D. C. L. 1995. Nutrient cycling and soil-erosion control in agroforestry systems. *In*: Juo, A. S. R. and Freed, R. D. (eds), *Agriculture and the Environment: Bridging Food Production and Environmental Protection in Developing Countries*, pp. 115–136. American Society of Agronomy, Madison, Wisconsin.

Nair, P. K. R., Rao, M. R., and Fernandes, E. C. M. 1994. Tree-crop interactions in sustainable agroforestry systems. *In*: Virmani, S. M. and Sekhon, G. S. (eds). *Soil Technology for Sustainable Agriculture*, pp. 110–137, Symposium VIa, XV World Soils Congress, Acapulco, Mexico.

Nair, P. K. R. 1994. Agroforestry. *Encyclopedia of Agricultural Science* 1:13–25, Academic Press, New York, NY.

Nair, P. K. R., Follis, M. B., and Jama B. A. 1994. Agroforestry: The remarriage of trees and crops - Its importance in sustainable land management. *In*: Wood, R. C. and Dumanski, J. (eds). *Proc. Int'l Workshop on Sustainable Land Management for the 21st Century*, Vol.2, 157–177. Agriculture Institute of Canada, Ottawa.

Nair, P. K. R. 1993. Agroforestry. *The 1993 McGraw-Hill Yearbook of Science and Technology*, pp. 9–11. McGraw-Hill, New York, NY.

Nair, P. K. R. and Muschler, R. G. 1993. Agroforestry. Chapter 16. *In*: Panser, L. (ed.). *Tropical Forestry Handbook*, pp. 983–1053. Springer, Heidelberg, Germany.

Nair, P. K. R. 1992. Agroforestry systems design: an ecozone approach. *In*: Sharma, N. P. (ed). *Managing the World's Forests: Looking for Balance Between Conservation and Development*, pp. 403–432. Kendall/Hunt Publ., Falls Church, VA for The World Bank, Washington, D.C.

Warkentin, M. E., Nair, P. K. R., and Ruth, S. R. 1991. An expert system for tropical and subtropical agricultural management. *In*: Liebowitz, J. (ed). *Proc. The World Congress on Expert Systems*, Vol. 2, pp. 929–936. Pergamon Press, New York, NY.

Nair, P. K. R. 1990. Agroforestry: an approach to sustainable land use in the tropics. *In*: Altieri, M.A. and Schmidt, L.L. (eds). *Agroecology and Small Farm Development*, pp. 121–135. CRC Press, Boca Raton, FL.

Nair, P. K. R. 1990. Classification of agroforestry systems. *In*: MacDicken, K. G. and Vergara, N. T. (eds). *Agroforestry: Classification and Management*, Chapter 2, pp. 31–57. John Wiley, New York, NY.

Nair, P. K. R. 1989. Agroforestry systems and practices in the major ecological zones of the tropics and sub-tropics. *In*: Reifsnyder, W.S. and Darnhofer, T.O. (eds). *Meteorology and Agroforestry*, pp.57–95. ICRAF, Nairobi, Kenya.

Nair, P. K. R. 1988. Use of perennial legumes in Asian farming systems. *In*: *Green Manure in Rice Farming*, pp. 301–317. Int. Rice Res. Inst., Los Banos, The Philippines.

Nair, P. K. R. 1987. Soil productivity under agroforestry. *In*: Gholz, H.L., (ed.) *Agroforestry: Realities, Potentials, and possibilities*, pp. 21–30. Martinus Nijhoff, The Hague, The Netherlands.

Nair, P. K. R. 1987. Agroforestry and firewood production. *In*: Hall, D. O. and Overend, R. P., (eds). *Biomass: Renewable Energy*, pp. 367–386. John Wiley, Chichester, England.

Nair, P. K. R. 1986. Alternative and improved landuse systems to replace resource-depleting shifting cultivation. *In*: *Strategies, Approaches and Systems in Integrated Watershed Management*, pp. 61–84. FAO Conservation Guide 14. FAO, Rome, Italy.

Nair, P. K. R. 1985. Agroforestry in the context of land clearing and development in the tropics. *In*: *Tropical Land Clearing for Sustainable Agriculture* IBSRAM Proc. 3, pp. 29–44. IBSRAM, Bangkok, Thailand.

Lundgren, B. O. and Nair, P. K. R. 1985. Agroforestry for soil conservation. *In*: El-Swaify, S. A., Moldenhauer, W.C., and Lo, A. (eds). *Soil Erosion and Conservation*, pp. 703–717. Soil Cons. Soc. America, Ames, IA.

Nair, P. K. R. and Fernandes, E. C. M. 1984. Agroforestry as an alternative to shifting cultivation. *In*: *Improved Production Systems as an Alternative to Shifting Cultivation*, FAO soils Bulletin 53, 169–182. FAO, Rome, Italy.

Nair, P. K. R. 1984. Agro-sylvo-pastoral systems. *In*: *Report on the FAO/Finland Training Course of Watershed Management for Africa*, pp. 172–184. January, 1983. FAO, Rome, Italy.

Nair, P. K. R. 1983. Tree integration on farmlands for sustained productivity of smallholdings. *In*: Lockeretz. W. (ed). *Environmentally Sound Agriculture*, pp. 333–350. Praeger Publishers, New York, NY.

Nair, P. K. R. 1983. Agroforestry with coconuts and other tropical plantation crops. *In*: Huxley, P. A. (ed). *Plant Research and Agroforestry*, pp. 79–102. ICRAF, Nairobi, Kenya.

Nair, P. K. R. 1983. Multiple land use and agroforestry. *In*: *Better Crops for Food* (Ciba Foundation Symposium 97), pp. 101–115. Pitman Books, London, England.

Nair, P. K. R. 1982. Role of ICRAF in agroforestry development. Paper given at the short course on *Agroforestry for the Humid Tropics* held at CATIE, March 1982. Paper S2-1: Proceedings compiled by N. Price; CATIE, Costa Rica.

Nair, P. K. R. 1980. Plant community interactions in crop combinations with coconuts. *In*: *Proc. Int. Conf. on Cocoa and Coconuts, Kuala Lumpur*, 1978, pp. 606–620. The Incorporated Society of Planters, Kuala Lumpur, Malaysia.

Khanna P. K. and Nair, P. K. R. 1980. Evaluation of fertilizer practices for coconuts under pure and mixed cropping systems in the west coast of India. *In*: Joseph, K. T. (ed.). *Proc. Conf. on Classification and Management of Tropical Soils*, 1977, Kuala Lumpur, pp. 457–466. Malaysian Soc. Soil Sci., Kuala Lumpur, Malaysia.

Nair, P. K. R. and Varghese, P. T. 1980. Recent advances in the management of coconut-based ecosystems in India. *In*: Furtado, J.I. (ed.) *Tropical Ecology and Development - Proc. Vth Int. Symp. Trop. Ecol*., 1979, pp. 569–580. Int. Soc. Trop. Ecol., Kuala Lumpur, Malaysia.