

Opened: 7 May 2020

**CURRICULUM VITA**  
Pedro Antonio Sánchez

Soil and Water Sciences Department  
University of Florida  
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Born 7 October 1940, Havana, Cuba  
Citizenship: United States  
Married, three children, six grandchildren

**Education**

Raised in Cuba; family farm and fertilizer business.  
Colegio de la Salle, Havana, Cuba: Elementary and Secondary (cum laude).  
Cornell University:  
    B.S. Agronomy 1962  
    M.S. Soil Science 1964  
    Ph.D. Soil Science 1968  
Several leadership and management short courses since 1991

**Languages:** English, Spanish, and Portuguese

**Employment**

September 2016 - present. Research Professor, Soil and Water Sciences Department, and Pre-eminent Core Faculty, Institute for Sustainable Food Systems at the University of Florida. Affiliate Faculty of the Centers for African and Latin American Studies at the University of Florida

Jan. 2003 - June 2016. Director, Agriculture and Food Security Center, the Earth Institute at Columbia University, Senior Research Scholar and Adjunct Professor, Department of Ecology, Environment and Evolutionary Biology, Columbia University, New York.

2009 - 2012. Director, Africa Soils Information Service (AfSIS), the Earth Institute at Columbia University.

2004 – 2010. Director, Millennium Villages Project, the Earth Institute at Columbia University.

- 2003- 2006. Co-Chair, UN Millennium Project Task Force on Hunger, United Nations, New York.
- 2002: Visiting Professor of Tropical Resources, Department of Environmental Science, Policy and Management, and Senior Research Fellow, Center for Sustainable Resource Development, University of California, Berkeley.
- 1991 - 2001: Director General, World Agroforestry Centre (ICRAF), Nairobi, Kenya.
- 1991-: Professor Emeritus of Soil Science and Forestry, North Carolina State University.
- 1990-91: Director, Center for World Environment and Sustainable Development - Duke University, North Carolina State University and the University of North Carolina at Chapel Hill.
- 1984-91: Coordinator, Tropical Soils Program, North Carolina State University, with activities expanded to Indonesia, Bolivia, and Madagascar.
- 1982-83: Chief, North Carolina State University Mission to Peru, Lima, and concurrently Technical Chief, Instituto Nacional de Investigación y Promoción Agropecuaria (INIPA) and Senior Advisor, World Bank project. Led the institutional development of Peru's agricultural research, extension and education system.
- 1979 - 91: Professor of Soil Science, North Carolina State University.
- 1979-82: Coordinator, Tropical Soils Program, North Carolina State University, with similar responsibilities as previously.
- 1977-79: Coordinator, Tropical Pastures Program, Centro International de Agricultural Tropical (CIAT), Cali, Colombia.
- 1973-79: Associate Professor of Soil Science, North Carolina State University.
- 1971-76: Leader of the Tropical Soils Program, Soil Science Department, North Carolina State University. Responsible for field soil research projects in the Cerrado of Brazil, the Amazon of Peru, and in Central America in cooperation with various research institutions; taught a graduate course in tropical soil management, major professor of Ph.D. and M.S. degree candidates.
- 1968-71: Co-leader, National Rice Program of Peru, North Carolina State University Agricultural Mission to Peru, Lambayeque. In charge of cooperative research and extension program aimed at achieving rice self-sufficiency
- 1968-73: Assistant Professor of Soil Science, North Carolina State University.
- 1965-68: Graduate Assistant in Soil Science, University of the Philippines-Cornell Graduate Education Program sponsored by the Ford Foundation, Los

Baños, Philippines. Taught soil fertility courses at the University and conducted research for Ph.D. degree at the International Rice Research Institute.

## Recognition

- Appointed by President Obama to the President's Committee for the National Medal of Science (Oct 2016).
- Doctor of Science Honoris Causa, North Carolina State University (Dec. 2015).
- Presidential Award, Soil Science Society of America (Nov. 2012).
- Elected to the National Academy of Sciences of the US (May 2012).
- Honorary member, Cuban Society of Soil Science (July 2010).
- Honorary member, Colombian Society of Soil Science (October 2008).
- Medal "Honra ao Mérito", Universidade Federal de Lavras, Brazil (July 2008).
- Elected to the American Academy of Arts and Sciences (May 2008).
- Certificate of contribution to the Intergovernmental Panel on Climate Change's Nobel Peace Prize of 2007.
- Charles A. Black Award from the Council of Agricultural Science and Technology, "for exemplary contributions to the understanding of agricultural science and technology" (March 2008).
- USDA Beltsville Area Distinguished Lecturer certificate for "revolutionary contributions to soils research" (Oct. 2007).
- Chief Atunluse of the Ikaram, Nigeria (August 2007).
- Doctor of Science Honoris Causa, Ohio State University (December 2006).
- Hero of Humanity, Heifer International (November 2006).
- Honorary Fellow, ISRIC-World Soil Information, Wageningen, Netherlands (March 2006).
- Fellow of the American Association for the Advancement of Science (Sept. 2005).
- Doctor of Science Honoris Causa, University of Guelph, Canada (June 2004).
- MacArthur Fellow (2004 – 2008).
- World Food Prize (October 2002).
- Presidential Award, Crop Science Society of America (2003)
- Anointed Luo Elder with the name of Odera Akang'o by the Luo community of Western Kenya (August 2001).
- Doctor Honoris Causa, Katholieke Universiteit Leuven, Belgium (February 2001).
- Elected Chairman, Soil Fertility and Plant Nutrition Commission, International Society of Soil Science (1994).
- International Service in Agronomy Award, American Society of Agronomy (1993).
- International Soil Science Award, Soil Science Society of America (1993).
- Appointed Adjunct Professor of Tropical Conservation, Duke University (1990).
- Appointed Honorary Professor, Universidad Nacional de la Amazonia Peruana, Iquitos, Peru (1987).
- Elected Vice Chairman, Commission VI, International Society of Soil Science (1986).
- Awarded the Orden de Mérito Agrícola, Government of Peru (1984).
- Fellow of the American Society of Agronomy (1983).
- Fellow of the Soil Science Society of America (1983).
- Diploma de Honor, Instituto Colombiano Agropecuario (1979).
- American Men and Women of Science (1972).

- Diploma de Mérito, Ministerio de Agricultura del Peru (1971).
- President, Cornell Agronomy Club (1962).
- President, Alpha Delta Phi fraternity, Cornell chapter (1962).
- National Plant Food Institute Agronomy Achievement Award (1960).

## Professional Assignments

- Daniel Carrasco Prize Selection Panel. Paris, (2011-12).
- Reviewer, National Academy of Sciences, Achieving Research Synergies for Food/Energy/Environment Challenges Committee (2010). A Workshop to Explore the Potential Contributions of the “New Biology”. *Board on Life Sciences, National Academy of Sciences*
- DuPont Committee on Agricultural Innovation and Productivity in the 21<sup>st</sup> Century (2010-2015).
- Leaders Group, The Chicago Initiative on Global Agricultural Development. Chicago Council on Global Affairs. 2008.
- Ad Hoc Advisory Group to the FAO Madrid Conference on Food Security, January 26-27, 2009.
- US National Committee for Soil Science, National Academy of Sciences (2008-
- Board on Agriculture and Natural Resources, National Research Council (2006 - 10).
- Board of Directors, Yara Foundation, Oslo (2005-2010).
- Board of Trustees, Millennium Promise Alliance, New York (2006 -09).
- Co-Chair, Task Force on Hunger, United Nations Millennium Development Goals (2002- 2006).
- Advisory Board, Center for the Study of Science and Religion, Columbia University (2005-2008).
- Advisory Council, IFPRI 2020 Vision (2004-2008).
- Earth Institute Faculty, Columbia University (2004 – 2016)
- Advisory Board, World Agricultural Forum (2003).
- Board of Directors, Africa Biotechnology Centre, Nairobi (2003)
- Selection committee for the International Soil Science Award, Soil Science Society of America (2002-).
- Advisory Board, Beahrs Environmental Leadership Program, University of California, Berkeley (2000 - 02).
- Co-editor in Chief “Agroforestry Systems” (1991 - 2001).
- Chair, CGIAR Intercentre Working Group on Climate Change (1998 – 2001).
- Member, Soil Fertility Initiative for Africa (World Bank, FAO), representing the CGIAR (1995 – 2001).
- Member, Advisory Council, CGIAR Gender and Diversity Program (1998- 2001).
- Lead author, Special Report on Forestry, Land Cover and Land Use Change, Intergovernmental Panel on Climate Change (1998 – 2000).
- Chair, CGIAR Center Directors Committee (1998-99).
- Chair, Global Steering Group, Alternatives to Slash and Burn Program (1991-99).
- Chair, Sustainability and Environment Committee, CGIAR Centre Directors (1995-98).
- Sub-Saharan Africa Committee, CGIAR Center Directors (1991-2001).
- Committee on CGIAR Response to Agenda 21 (1993-1994).
- Chair, Board of Management, Tropical Soil Biology and Fertility Program (1989-91).

- Chair, Committee on Sustainable Agriculture and the Environment in the Humid Tropics, National Academy of Sciences, Washington (1988-91).
- International Committee on Plant-Soil Interactions at Low pH (1990)
- Technical Committee, Soil Management CRSP (1989-91).
- Co-director of the joint Duke-N.C. State Program on Tropical Conservation and Sustainable Development (1986-88).
- Committee on Tropical Deforestation, Office of Technology Assessment, U.S. Congress (1984).
- Coordinating Committee, Tropical Soil Biology and Fertility (TSBF) Program (1983-87).
- Coordinator, Soil Management Collaborative Research Support Program Planning Grant, USAID/BIFAD, Washington, D.C. (1980-82).
- Editorial Advisory Board "Field Crops Research" (1981-84).
- International Committee on Land Clearing and Development (1984-86).
- Editorial Board "Geoderma".
- Board of Directors, American Society of Agronomy (1985).
- Advisory Council, Centro de Pesquisa Agropecuaria dos Cerrados, EMBRAPA, Brasilia, Brazil (1982-85).
- Committee on Selected Biological Problems of the Humid Tropics, National Academy of Sciences, Washington (1981-82).
- Chair, IBSRAM Acid Tropical Soils Network Coordinating Committee (1982-84).
- Chair, Executive Committee, University Consortium on Soils of the Tropics (1980)
- Consejo Directivo del Centro Nacional de Investigación Agropecuaria de Carimagua, ICA-CIAT, Carimagua, Colombia (1977-79).
- Vice-Chairman, International Steering Committee, Red de Investigación Agroecológica para la Amazonía-REDINAA (Amazon Research Network)-1979-82.
- Board of Directors, Sociedad Colombiana de la Ciencia del Suelo (1978-80).
- Leader, Soils Project, REDINAA (1979-82).
- Steering Committee for the Formation of an International Board on Soils Research and Management (IBSRAM) (1979-80).
- Technical Advisory Board, Cocoa Research Institute (CEPLAC), Itabuna, Bahia, Brazil (1978-82).
- Editorial Board "Tropical Agriculture".
- Lead Analyst, Land and Water Section, World Food and Nutrition Study, National Academy of Sciences, Washington (1972-74)
- Chair; International Agronomy Division, American Society of Agronomy (1972)
- Consultant to, or on special assignments with: Ford Foundation, USAID, Instituto Interamericano de Ciencias Agrícolas, Rockefeller Foundation, Tennessee Valley Authority, Venezuelan Society of Soil Science, World Bank, New Zealand Society of Soil Science, Embrapa, FAO, Royal Swedish Academy of Sciences, Ecosystems Center-Marine Biological Laboratory, IBSRAM, Consejo Nacional de Ciencia y Tecnología (Peru), UNESCO-Man in the Biosphere Program, U.S. Environmental Protection Agency, CIAT, World Wildlife Fund, Rainforest Alliance, U.S. Congress, Spanish Society of Soil Science.

### **Membership in Professional and Honorary Societies**

- National Academy of Sciences of the United States of America
- American Academy of Arts and Sciences

- American Society of Agronomy
- Soil Science Society of America
- International Society of Soil Science
- American Association for the Advancement of Science (AAAS)
- Council on Agricultural Science and Technology.
- Asociación Latinoamericana de Ciencias Agrícolas
- Asociación Latinoamericana de Ciencias Pecuarias del Peru
- Asociación de Investigadores Agrícolas y Pecuarios del Peru
- Sociedad Cubana de la Ciencia del Suelo (miembro honorario)
- Sociedad Colombiana de la Ciencia del Suelo (miembro honorario)
- Sociedad Peruana de la Ciencia del Suelo (miembro honorario)
- Sociedad Latinoamericana de la Ciencia del Suelo.
- Soil Science Society of North Carolina.
- Gamma Sigma Delta.
- Sigma Xi.
- Sigma Iota Rho (honorary society for international studies).
- East Africa Soil Science Society.
- World Overview of Conservation Approaches and Technologies.

### **Professional Travel Experience (68 countries, 44 in the tropics)**

Australia, Austria, Benin, Belgium, Brazil, Burkina Faso, Burundi, Cameroon, Canada, Chile, China, Colombia, Costa Rica, Côte d'Ivoire, Cuba, Czech Republic, Denmark, Democratic Republic of Congo; Dominican Republic, Ecuador, El Salvador, Ethiopia, Finland, France, Germany, Ghana, Guatemala, Haiti, India, Indonesia, Ireland, Italy, Japan, Kenya, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Martinique, Mexico, Mozambique, Netherlands, New Zealand, Niger, Nigeria, Norway, Panama, Peru, Philippines, Rwanda, Senegal, Singapore, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Togo, Trinidad, Turkey, United States, United Kingdom, Venezuela, Zambia, Zimbabwe.

### **Teaching Experience**

#### ***Formal courses:***

- EEEB G4136. Tropical Agriculture and Sustainable Development. Graduate Course, Columbia University Fall 2007 3 credits. Co-taught with Cheryl Palm and Markus Walsh,
- EEEB G9509- African Rural Development in Perspective: the Millennium Villages. Columbia University Fall 2006 1 credit.
- ESPM 298 - Tropical Resources Seminar (2 hrs. graduate), University of California, Berkeley. Co-taught with Cheryl Palm. 2002.
- FOR 699 - Conservation and Sustainable Development (2 hrs. graduate) North Carolina State University, co-listed at Duke University and the University of North Carolina at Chapel Hill. Co- taught with John Terborgh, Duke University. 1990.

- SSC 501 - Tropical Soils (3 hrs. graduate) North Carolina State University, co-listed at Duke University and the University of North Carolina at Chapel Hill. 1972 – 1991, in alternate years.
- Soils 50 - Soil Fertility (3 hours-undergraduate) University of the Philippines, Los Baños. 1966-67.
- Summer Course on Tropical Soils at the University of Puerto Rico Mayagüez. 1972.
- Summer courses in Latin American Culture and Spanish for Peace Corps trainees at Cornell. 1963 –66.
- Teaching assistant Agronomy 1 (elementary soil science course), Cornell University 1962-63.

**Short courses or invited lectures in courses at:** In the **US**: World Bank Rural Week; Crop Science Society of America's Keppler Endowed Lecture; University of Florida York Distinguished Lecture; University of Missouri; Kansas State University; New York Academy of Sciences; United Nations Standing Committee on Nutrition; Woods Hole Marine Biological Laboratory Distinguished Scientist Lecture; Ohio State University, Distinguished Scientist Lecture; Cornell University, Iowa State University, Iona College; University of Rhode Island. In **Europe**: Katholieke Universiteit Leuven, Belgium; Donor Platform, OECD, Paris; Bonn University, Germany; Agricultural University, Wageningen, Netherlands; Swedish University of Agricultural Sciences, Uppsala; Royal Agricultural and Veterinary University and the University of Copenhagen, Denmark; Agricultural University of Norway, Ås; University of Agriculture, Vienna, Austria; University of Berne, Switzerland. In **Africa**: Kenyatta University, Kenya; University of Zimbabwe; CGIAR Women Leadership Course, Nyeri, Kenya. Also lectured at many short courses at ICRAF from 1991 – 2001; University of the Witwatersrand, South Africa. Princeton-Columbia Field Course lectures 2013 and 2015 Mpala Ranch, Kenya. In **Latin America**: Universidad de Chapingo, Universidad de Campeche, Colegio de Agricultura Tropical, Tabasco, all in Mexico; Universidad de Costa Rica; Universidad Nacional de Colombia; Universidad Nacional Agraria La Molina, Universidad Nacional Pedro Ruiz Gallo, Universidad Nacional de Ucayali, Universidad Nacional de la Amazonia Peruana, all in Peru; Universidade Federal do Rio de Janeiro, Universidade Federal do Para, both in Brazil. In **Asia**: Kasetsart University, Khon Kaen University, both in Thailand; Bogor Agricultural University, Indonesia; Kyoto University; University of Queensland, Australia.

**Graduate advising:** Major Professor of 6 MS degree students and 11 PhD students at North Carolina State University.

### **Professional Publications**

**193 (as of Dec. 2015). 131 refereed; 62 not refereed**

### **Media:**

How to triple food production in Africa. Huffington Post, March 19, 2013.

Meals, not myths. *The Broker* 23:14 – 16. 2010.

On soil. Long regarded as lowly dirt, soil is gaining attention as a vital natural resource. *Seed Global Reset*, p. 34-35. *Seedmagazine.com* 2010

Our Noble Attempts to 'Feed the World' Are Simply Not Working, *Guardian*, March 11, 2009.

Crisis presents opportunity. Guest column, *Des Moines Journal*, p 40 (July 13, 2008).

An African revolution. *Newsweek International*, April 16, 2007 issue

*Des Moines Register*, Op-Ed "Small-scale projects transforming Africa" October 24, 2006. page 13A

*New York Times*, Op-ed "The Next Green Revolution". October 6, 2004, A29

*Le Monde*, Op-ed "A Green Revolution for Africa". August 11, 2004.

*The Economist*. "Trees for Life". August 22, 2002.

#### **Book authored:**

Sanchez PA. 2019. *Properties and Management of Soils in the Tropics, Second edition*. Cambridge University Press, UK. 666 p. ISBN: 9781107176058 (print), 9781316809785 (online). DOI:10.1017/978136809785

Sanchez P.A. 1976. *Properties and Management of Soils in the Tropics*. John Wiley and Sons, New York, 618 pp. Spanish version published by IICA, San José, Costa Rica, 632 pp., 1981. Also translated into Bahasa Indonesia. (Rated 7th among the top twenty monographs in Soil Science in 1994).

#### **Books edited:**

Uphoff, N., A. S. Ball, E. Fernandes, H. Herren, O. Hudson, M. Laing, C. A., Palm, J. Pretty, N. Sanginga, P. A. Sanchez and Janice Thies (eds.). 2006. *Biological Approaches to Sustainable Soil Systems*. CRC-Taylor and Francis, London. 796 p.

Palm, C. A, S. A, Vosti, P. A. Sanchez and P. J. Ericson (eds.). 2005. *Slash and Burn Agriculture: The Search for Alternatives*, New York: Columbia University press. 463 p.



Sanchez, P. A., Swaminathan, M. S., Dobie, P. Yuksel, N. 2005. *Halving hunger: it can be done*. UN Millennium Project, Task Force on Hunger. Earthscan, London and Sterling, VA, 245p.

Sachs, J. D., Sanchez, P.A., et al. 2005. *Investing in Development : A Practical Plan to Achieve the Millennium Development Goals*. UN Millennium Project. Earthscan London and Sterling, VA, 74p.

Buresh, R. J., Sanchez, P. A. and Calhoun, F. J. (eds.) 1997. *Soil fertility replenishment in Africa*. SSSA Special Publication No. 51. Soil Science Society of America, Madison, WI. 272p.

Sanchez, P.A. and Hailu, M. (guest eds.) 1996. *Alternatives to Slash and Burn Agriculture*. *Agriculture, Ecosystems & Environment* 58: 1- 86.

Lal, R. and Sanchez, P.A. (eds.). 1992. *Myths and Science of Soils of the Tropics*. SSSA Special Publication 29. Soil Science Society of America, Madison, Wisconsin. 185 pp.

Sanchez, P.A., Stoner, E. R. and Pushparajah, E. (eds.) 1987. *Management of Acid Tropical Soils for Sustainable Agriculture*. IBSRAM Proceedings No. 2. International Board for Soils Research and Management, Bangkok, 299 pp

Lal, R., Sanchez, P. A. and Cummings, R. W., Jr. (eds.). 1986. *Land Clearing and Development in the Tropics*. Balkema, Rotterdam. 450 pp.

Hecht, S. B., Nores, G. A., Sanchez, P. A., Spain, J. M. and Toenniessen, G. H. (eds.). 1982. *Amazonia: Agriculture and Land Use Research*. CIAT, Cali, Colombia. 428 pp. (Spanish version: 448 pp.).

Sanchez, P. A. and Tergas, L. E. (ed.). 1979. *Pasture Production in Acid Soils of the Tropics*. Series 03EG-5. CIAT, Cali Colombia. 488 pp. (In Spanish: Series 035G-5, 524 pp., published in Portuguese by EMBRAPA).

Papendick, R. I., Sanchez, P. A. and Triplett, G. B. (eds.) 1976. *Multiple Cropping*. American Society of Agronomy Special Publication 27. American Society of Agronomy, Madison, Wisconsin. 378 pp.

Sanchez, P. A. (ed.). 1973. *A Review of Soils Research in Tropical Latin America*. N. C. Agr. Exp. Sta. Tech. Bull. 219. 197 pp. (English version) and 215 pp. (Spanish version).

Sanchez, PA., Hernandez, J. y Arrasco, R. (eds.). 1969. *Curso de Capacitación sobre el Cultivo del Arroz*. Programa Nacional de Arroz, Ministerio de Agricultura, Lambayeque, Peru. 537 pp.

## Publications

### 2020

Sanchez PA.2020. Time to increase production of nutrient-rich foods. *Food Policy* Food Policy 91 (2020) 101843 <https://doi.org/10.1016/j.foodpol.2020.101843>

### 2015

Sanchez PA. 2015. En route to plentiful food production in Africa. *Nature Plants* 1: 1-2.

### 2013

Pedro Sanchez, Ray Weil and Alison Rose.2013. SOILDOC. An innovative soil test kit that provides real-time fertilizer recommendations. IFA Fertilizers and Agriculture, February 2013, p. 6- 7.

### 2012

DeFries, R.S., E. E. Ellis, F. S. Chapin III, P.A. Matson, B.L. Turner II, A. Agrawal, P. J. Crutzen, C. Field, P, Gleick, P. M. Kareiva, E. Lambin, D. Liverman, E. Ostrom, **P. A. Sanchez**, J. Syvistky.2012. Planetary Opportunities: A Social Contract for Global Change Science to Contribute to a Sustainable Future. *BioScience* 62:603 – 606.

Sachs JD, Remans R, Smukler SM, Winowiecki L, Andelman SJ, Cassman KG, Castle D, DeFries R, Denning G, Fanzo J, Jackson LE, Leemans R, Lehmann J, Milder JC, Naeem S, Nziguheba G, Palm CA, Pingali PL, Reganold JP, Richter DD, Scherr SJ, Sircely J, Sullivan C, Tomich TP, **Sanchez PA** (2012). Effective monitoring of agriculture: a response. *Journal of Environment Monitoring* 14:738-742.

Remans, R. Pronyk PM, Fanzo JC, Chen J, Palm CA, Nemser B, Muniz M, Radunsky A, Abay AH, Coulibaly M, Mensah-Homiah J, Wagah M, An, X, Mwaura C, Quintana E, Somers MA, **Sanchez PA**, Sachs SE, McArthur JW, Sachs JD; Millennium Villages Study Group (2011). Multisector intervention to accelerate reductions in child stunting: an observational study from 9 sub-Saharan African countries. *American Journal of Clinical Nutrition* 94:1632-1642.

### 2011

Fanzo, J., R. Remans and P. A. Sanchez. 2011. The role of chemistry in addressing hunger and food security. *The Chemical Element*, J. García-Martínez and E. Serrano-Torregosa, eds. Wiley-VCH p. 71-98.

Fanzo, J., R. Remans, P. M. Pronyk, J. Negin, j. Wariero, P. Mutuo, J. Masira, W. Diru, E. Lerelai, D. Kim. B. Nemser, M Muñiz, C. A. Palm. **P. A. Sanchez**, S Ehrlich-Sachs, J. D.

Sachs, 2011. A 3-year cohort study to assess the impact of an integrated food and livelihood-based model on undernutrition in rural Western Kenya. *Combating Macronutrient Deficiencies: Food-based Approaches* eds. B. Thompson and L. Amoroso, p 76-91. FAO, Rome.

## 2010

Sanchez, P. A. 2010. Tripling crop yields in tropical Africa. *Nature Geoscience* 3: 299 – 300.

Sachs, J., R. Remans, S. Smuckler, I. Winowiecki, S. J. Andelman, K. G. Cassman, D. Castle, R. DeFries, G. Denning, J. Fanzo, L. E. Jackson, R. Leemans, J. Lehmann, J. C. Miller, S. Naeem, G. Nziguheba, C. A. Palm, P. L. Pingali, J. P. Reganold, D. D. Richter, S. J. Scherr, J. Sircely, C. Sullivan, T. P. Tomich and **P. A. Sanchez**. 2010. Monitoring the world's agriculture. *Nature* 466: 558 – 560.

Nziguheba, G., C. A. Palm, T. Berhe, G. Denning, A. Dicko, O. Diouf, W. Diru, R. Flor, F. Frimpong, R. Harawa, B. Kaya, E. Manumbu, J. McArthur, P. Mutuo, M. Ndiaye, A. Niang, P. Nkhoma, G. Nyadzi, J. Sachs, C. Sullivan, G. Teklu, L. Tobe and **P. A. Sanchez**. 2010. The African Green Revolution: Results from the Millennium Villages Project. *Advances in Agronomy* 109: 75 – 115.

N. V. Fedoroff, D. S. Battisti, R. N. Beachy, P. J. M. Cooper, D. A. Fischhoff, C. N. Hodges, V. C. Knauf, D. Lobell, B. J. Mazur, D. Molden, M. P. Reynolds, P. C. Ronald, M. W. Rosegrant, **P. A. Sanchez**, A. Vonshak, J.-K. Zhu. 2010. Radically Rethinking Agriculture for the 21st Century. *Science* 327: 833-834

## 2009

Sanchez, P. A., S. Ahamed, F. Carré, A. E. Hartemink, J. Hempel, J. Huising, P. Lagacherie, A. B. McBratney, N. J. McKenzie, M. I. Mendonça-Santos, B. Minasny, L. Montanarella, P. Okoth, C. A. Palm, J. D. Sachs, K. D. Shepherd, T-G. Vågen, B. Vanlauwe, M. G. Walsh, L. A. Winowiecki, G-L Zhang. 2009. Digital soil map of the world. *Science* 325: 680 – 681.

Sanchez, P. A. 2009. A smarter way to combat hunger. *Nature* 458: 148.

Sanchez, P. A., G. L. Denning, G. Nziguheba. 2009. The African Green Revolution moves forward. *Food Security* 1: 37 – 44.

Denning G, Kabambe **P. Sanchez** P, Malik A, Flor R, et al. (2009) Input subsidies to improve smallholder maize productivity in Malawi: Toward an African green revolution. *PLoS Biology* 7(1): e1000023 [doi:10.1371/journal.pbio.1000023](https://doi.org/10.1371/journal.pbio.1000023) .

Catherine Bertini, Dan Glickman (co-chairs), Carol Bellamy, Doug Bereuter, Eva Clayton, Tony Hall, Peter McPherson, Phyllis Oakley, Thomas Pickering, Per Pinstrup-Andersen, **Pedro Sanchez**, Robert Thompson, Richard Williamson (2009), *Renewing*

*America's Leadership in the Fight Against Global Hunger and Poverty*, Chicago Council on Global Affairs, 227p.

Jeffrey Sachs, Akin Adesina, Jose Antonio Alonso, Tom Arnold, Thijs Berman, Norman Borlaug, Niels Christiansen, Partha Dasgupta, Glenn Denning, Aberra Deressa, Chris Dowswell, Hans Eenhoorn, Thorleif Enger, Dean Fairchild, Gabriel Ferrero de Loma-Osorio, Lawrence Haddad, Carlos Mulas-Granados, Amadou Niang, **Pedro Sanchez**, Tiémoko Sangaré, Ad-hoc Advisory Group to the Madrid Conference on Food Security, (2009). *Smallholder Food Production and Poverty Reduction. Principles for a Financial Coordination Mechanism to Support Smallholder Farmers*. IDEAS Foundation, Madrid, 50 p.

Vitousek PM, Naylor R, Crews T, David MB, Drinkwater E, Holland E, Johnes PJ, Katzenberger J, Martinelli LA, Matson PA, Nziguheba G, Ojima D, Palm CA, Robertson GP, **Sanchez PA**, Townsend AR, Zhang FS. 2009. Nutrient Imbalances in Agricultural Development. Policy forum. *Science* 324: 1519 – 1520.

## 2007

Sanchez PA, Palm CA, Sachs JD, Denning GL, Flor R, Harawa J, Jama B, Kiflemariam T, Konecky B, Kozar R, Lelerai E, Malik A, Modi V, Mutuo P, Niang A, Okoth H, Place F, Sachs SE, Said A, Siriri D, Teklehaimanot A, Wang K, Wangila J and Zamba C. 2007. *The African Millennium Villages*. *Proceedings of the National Academy of Sciences* 104: 16775 – 16780.

Palm, C.A., P. A. Sanchez, S. Ahamed and A. Awiti. 2007. Soils: A contemporary perspective. *Annual Review of Environment and Resources* 32: 99 – 121.

## 2005

Sanchez, P.A., Swaminathan, M.S. 2005. Cutting world hunger in half. *Science*. 307: 357-359.

Sanchez, P.A., Swaminathan, M.S. 2005. Hunger in Africa: the link between unhealthy people and unhealthy soils. *The Lancet*. 365: 442-444.

Sanchez, P. A., Swaminathan, M. S., Dobie, P. Yuksel, N. 2005. Halving hunger: it can be done. UN Millennium Project, Task Force on Hunger. Earthscan, London and Sterling, VA, 245p.

Sachs, J. D., Sanchez, P.A., et al. 2005. Investing in Development: A Practical Plan to Achieve the Millennium Development Goals. UN Millennium Project. Earthscan London and Sterling, VA, 74p.

Sanchez, P. A., 2005. Reducing hunger in tropical Africa while coping with climate change. *Climate Change and Global Food Security*, R. Lal, N. Uphoff, B. A. Stewart, D. O. Hansen (eds.) CRC Press, p. 1 – 20.

**2004**

The UN mobilizes against hunger in Africa. A development strategy rooted in good soil. New York Academy of Sciences Update, March 2004, pp. 4 – 7.

**2003**

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