

Curriculum Vitae

Name: Jens B. Aune

Present position: Professor (agroecology/development studies), Department for International Environment and Development Studies, Norwegian University of Life Sciences, Ås, Norway

Personal data: Norwegian citizen. Born 1958

Telephone office: 47 64965323, Mobile 47 97681283, Telefax: 47 64965201

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Major research interests: Climate Smart Agriculture, Integrated Plant Nutrition Management, conservation agriculture, biofuel production and rural energy solutions, carbon sequestration in soils and forests, bio-economical modeling and environmental effects of crop production

Education:

2001 Course in System analyses, SLU, Sweden (4 weeks)

1991 Course in university pedagogics, NLH

1990 Dr. scient., Agricultural University of Norway. Crop Science

1984 Cand. agric., Agricultural University of Norway. Crop science

Employment record:

2011- Professor, Noragric, UMB

1999- Associate professor/researcher, Noragric, NLH/UMB (development studies/agroecology), Noragric, NLH

1996- 1999 Associate professor (agroecology), Noragric, NLH

1991-1995: Researcher, Centre for Sustainable Development, NLH

1990-1991: Researcher (cereal diseases), Norwegian Plant Protection Institute

1989-1990: Research Scholar, Department of Crop Science, NLH

1987-1988: Research Assistant, Norwegian Church Aid/Norwegian Research Council, Mali

1985-1986: Research Scholar, Department of Crop Science, NLH

1984-1985: Consultant, Hveem Research Station, Potato Seed Production

I was for 6 months in 1993 guest researcher at the Ohio State University, USA

Countries worked in:

Mali, Ethiopia, Tanzania, Malawi, Chad, Mauritania, Senegal, Madagascar, India, Zambia, USA, Norway

Languages: Norwegian - mother tongue

English - fluent

French – fluent/good
German - poor

Referee to the following journals: Agricultural, Ecosystems and Environment, Soil & Tillage Research, Ecological Economics and World Development

Refereed publications:

- Angelsen, A. J.B. Aune, S. Holden, S. Glomrød 2003. Leakage in CDM projects: are forest and energy projects equally troubled. European Tropical Research Network No. 39/40, pp. 21-22.
- Amede, T, A. Stroud, and J. Aune 2004. Advancing human nutrition without degrading land resources through modelling cropping systems in the Ethiopian highlands. Food and Nutrition Bulletin 25:344-353.
- Aune, J.B. 1990. La production des céréals à petits grains et des protéagineuses dans le Gourma au Mali. Agricultural University of Norway, Doctor Scientiarum Thesis 1990 14, 89 pp.
- Aune, J.B. 1991. Régénération des plaines à *Panicum laetum* dans le Gourma malien. Revue Elev. Vét. Pays Trop. 44:363-372.
- Aune, J.B. 1992. Varieties du niébé en culture pluvial pour le Gourma au Mali. Norwegian Journal of Agricultural Sciences 6:145-160.
- Aune J.B. 1992. Techniques culturales pour le mil au Gourma malien. Norwegian Journal of Agricultural Sciences 6: 161-191.
- Aune, J.B. 1992. La culture de decrue au Gourma, Mali: conditions pédologiques, espèces et variétés. Norwegian Journal of Agricultural Sciences 6: 279-291.
- Aune, J.B. 1992. Variétés du mil en culture pluviale pour le Gourma au Mali. Norwegian Journal of Agricultural Sciences 6: 293-308.
- Aune, J.B. 1993. Ecological and economical requirements for sustainable land use in sub-Saharan Africa. Forum for Development Studies, no. 2: 211-219.
- Aune, J.B. 1999. LFA and PRA - mutually exclusive or complementary tools for project planning? Development in Practice 10: 687-690 (this paper is also printed 2003 in: Development methods and approaches - critical reflections: selected essays from Development in Practice, Oxfam GB)
- Aune, J.B. 2011. A comparison of production and environmental impacts of conventional agriculture, organic agriculture and conservation agriculture. Sustainable Agriculture Reviews 8: 149-165.
- Aune, J.B. and A. Bationo 2008. Agricultural intensification in the Sahel – The ladder approach. Agricultural Systems 98: 119-125.
- Aune, J.B., S. Glomsrød og H. Wiig 1997. Økonomisk politikk og miljøvirkninger i utviklingsland. I : Økonomi og økologi. Verktøy for en bærekraftig politikk (K.A. Brekke, Ø. Lone, T. Rødseth eds.), ad Notam, Gyldendal, 207-225 pp.
- Aune, J.B. and A. Massawe 1998. Effects of soil management on economic return and indicators of soil degradation in Tanzania: a modelling approach. Advances in GeoEcology 31:37-43.
- Aune, J.B., H. Wiik, S. Glomsrød and V. Iversen 1998. Structural adjustment and land degradation: a CGE analyses for Tanzania. In: Life Science Dimensions. Ecological economics and sustainable land use (S. Dwyer, U. Ganslosser, M. O'Connor eds.) Filander Press, Germany, pp. 89-112.

- Aune, J.B., I.K. Kullaya, M. Kilasara, F.S.B. Kaihura, B.R. Singh and R. Lal. 1998
Consequences of soil erosion on soil productivity and productive restoration by soil
management in Tanzania. In: Soil quality and agricultural sustainability. (R. Lal, eds), Ann
Arbor Press, Chelsea, Mich., USA 197-212
- Aune, J.B. and R. Lal 1995. The tropical soil productivity calculator- a model for assessing
effects of soil management on productivity. In: R.Lal and B.A. Steward (eds). Soil
management. Experimental basis for sustainability and environmental quality. CRC Press,
Lewis Publishers, Boca Raton, USA, 499-520 pp.
- Aune J.B. and R.Lal 1997. Agricultural productivity in the tropics and critical limits of properties
of oxisols, ultisols and alfisols. *Tropical Agriculture* 74:96-103.
- Aune, J.B., M.T. Bussa, F.G. Asfaw, and A.A. Ayele 2001. The ox-ploughing system in Ethiopia:
can it be sustained. *Outlook on Agriculture* 30: 275-280.
- Aune, J.B. A.T. Alemu and K. Gautam 2005. Carbon sequestration in rural communities: Is it
worth the effort. *Journal of Sustainable Forestry* 21: 85-99.
- Aune. J.B., Berthe, A. and M. Doumbia 2005. Conservation agriculture as an approach to
agricultural development in dryland areas of Mali. In: G. Omany and D. Paternak (eds.).
Sustainable agricultural systems for the drylands. Proceeding of the Interantional Symposium
for Sustainable Dryland Agricultural Systems, 2-5 December 2003, Niamey, Niger.
International Crop Research Insitute for the Semi-arid Tropics, pp. 239-248.
- Aune J.B., M. Doumbia, A. Berthe 2007. Microfertilizing sorghum and pearl millet in Mali 2007.
Outlook on Agriculture 36: 199-203.
- Aune, J.B. and A. Ousman 2011. Effect of seed priming and microdosing of fertilizer on sorghum
and pearl millet in Western Sudan. *Experimental Agriculture* 47: 419-430.
- Aune, J.B., C.O. Traoré and S. Mamadou 2011/2012. Low cost technologies for improved
productivity of dryland farming in Mali. *Outlook on agriculture* (accepted for publication)
- Ayele, A.A. and J.B. Aune 2000. Technical options for agricultural development in the Ethiopian
highlands. A model of crop livestock interactions. In: Economic policy and sustainable land
use. Recent advances in quantitative analyses for developing countries (N. Heerink, H.
Keulen and M. Kuipers eds.) Springer Verlag, Heidelberg, Germany, pp. 49-57.
- Balesh, T., F. Zapata, J.B. Aune 2005. Evaluation of mustard meal as organic fertiliser on
teff(*Eragrostis tef* (Zucc) Trotter) under field and greenhouse conditions. *Nutrient Cycling in
Agroecosystems* 73: 49-57.
- Benjaminsen, T.A., J.B. Aune, D. Sidibé 2010. A critical political ecology of cotton and soil
fertility in Mali. *Geoforum* 41: 647-656.
- Brakas, S.G. and J.B. Aune 2011. Biomass and carbon accumulation in land use systems of
Claveria, the Philippines. In: Carbon Sequestration in Agroforestry: Processes, Policy, and
Prospects (eds. B. M. Kumar and P. K. R. Nair). Springer Science+Business Media B.V.,
p.p. 163-175.
- Brekke, K.A., V. Iversen and J.B. Aune 1998. Soil wealth in Tanzania. *Environment and
Development Economics* 4:333-356 (this paper is also printed in 2003 in : Natural Resource
Accounting and Economic Development, C. Perrings and J. R. Vincent and J.R. Vincent eds.,
Edward Elgar Publishing, Northampton, MA, USA.
- Feyisa, T.H. and J.B. Aune 2003. Khat expansion in the Ethiopian Highlands. *Mountain Research
and Development* 23: 186-190.
- Glomsrød, S., Wei T., Liu G., Aune J.B. 2011. How well do tree plantations comply with the
twin targets of the Clean Development Mechanism? The case of tree plantations in Tanzania.
Ecological Economics 70: 1066-1074.

- Habtegebrail K., B.R. Singh, J.B. Aune 2007. Wheat response to N₂ fixed by faba bean (*Vicia faba* L.) as affected by sulfur fertilization and rhizobial inoculation in semi-arid Northern Ethiopia. *Journal of Plant Nutrition and Soil Science* 170: 412-418.
- Kaihura, F.B., I. Kullaya, M. Kilasara, J.B. Aune, B.R. Singh and R. Lal 1999. Soil quality effects of accelerated erosion and management systems in three eco-regions of Tanzania. *Soil and Tillage Research* 53: 59 – 70.
- Kaihura, F.B., I. Kullaya, M. Kilasara, J.B. Aune, B.R. Singh and R. Lal 1999. Productivity effect of erosion and soil management in three ecoregions of Tanzania. In: *Soil erosion and dryland farming* (J.M Laflen, J. Tian, C-H Huang eds.) CRC Press, Boca Raton, USA, 217 – 228 pp.
- Kullaya, I.K., Kilasara, M., J.B. Aune 1998. The potential of marajea (*Crotolaria ochroleuca*) as green manure in maize production in the Kilimanjaro region of Tanzania. *Soil Use and Management* 14: 117-118.
- Mwambazi, T.N., B. Mwakalombe, J.B. Aune and T.A. Breland 1998. Turnover of green manures and effects on bean in Northern Zambia. *Advances in Geoecology* 31:1247-1254.
- Nakakaawa, C.A., Aune J., Vedeld P. 2010. Changes in carbon stocks and tree diversity in agro-ecosystems in south western Uganda: what role for carbon sequestration payments? *New forests* 40: 19-44.
- Nakakaawa C.A., Vedeld P.O., Aune, J.B. 2011. Spatial and temporal land use and carbon stock changes in Uganda: implications for a future REDD strategy. *Mitigation and Adaption Strategies for Global Change* 16:25-62.
- Nyanga, P. H., Johnsen, F.H., Aune, J.B., Kalinda T. 2011. Smallholder Farmers' Perceptions of Climate Change and Conservation Agriculture: Evidence from Zambia. *Journal of Sustainable Development*, 4: 73-85
- Ousman A. and J.B. Aune 2011. Effects of seed priming and microdosing of fertilizer on groundnut, sesame and cowpea in Western Sudan. *Experimental Agriculture*, 47: 431-443.
- Schreinemacher P., T. Berger, J.B. Aune 2007. Simulating soil fertility and poverty dynamics in Uganda. A bio-economic multi-agent systems approach. *Ecological Economics* 64: 387-401.
- Shiferaw, B., S. Holden and J. Aune 2000. Population pressure and land degradation in the Ethiopian highlands: A bio-economic model with endogenous soil degradation. In: *Economic policy and sustainable land use. Recent advances in quantitative analyses for developing countries* (N. Heerink, H. Keulen and M. Kuipers eds.) Springer Verlag, Heidelberg, Germany, pp. 73-92.
- Temu, A.E.M. and J.B. Aune 1995. Effect of green manuring and rotation on maize yield in the Southern Highlands of Tanzania. *Norwegian Journal of Agricultural Sciences. Supplement No. 21*, 93-98 pp.
- Tulema, B., F. Zapata, and J. Aune and B. Sitaula 2005. N fertilisation, soil type and cultivars effects on N use efficiency in tef (*Eragrostis tef* (Zucc.) Trotte). *Nutrient Cycling in Agroecosystems* 71:203-211.
- Tulema B, J.B. Aune, T.A. Breland 2007. Availability of organic nutrient resources and their effects on yield and nutrient recovery of tef (*Eragrostis tef* (Zucc.) Trotter) and on soil properties. *Journal of Plant Nutrition and Soil Science* 170: 543-550.
- Tulema B., J.B. Aune, F. Johnsen and B. Vanlauwe 2008. The prospects of reduced tillage in tef (*Eragrostis tef* Zucca) in Gare Arera, West Shawa Zone of Oromiya, Ethiopia. *Soil & Tillage Research* 99: 58-65.
- Umar, B.W., Aune J.B., Johnsen F. and Lungu O.I. Options for improving smallholder agriculture in Zambia. *Journal of Agricultural Science*, 3: 50-62.

Wiig, H, J.B. Aune, S. Glomsrød and V. Iversen 2001. Structural adjustment and soil degradation in Tanzania: A CGE model approach with endogenous soil productivity. *Agricultural Economics* 24: 263-287.

Selected other publications:

Abesha, D., A. Waktola, J. B. Aune 2000. Agricultural extension in the drylands of Ethiopia. The Dryland Coordination Group, Report no. 9, 27 pp.

Aune, J.B. 1995. Predicting soil degradation in Tanzania - a system analyses approach. *Norwegian Journal of Agricultural Sciences. Supplement* 21, 47-60 pp.

Aune, J.B. 2001. Økologisk landbruk i et nasjonalt og internasjonalt perspektiv. *Kronikk, Nationen* 30. mars.

Aune, J.B. 2001. Økologisk landbruk – blindspor eller framtidas landbruk? *Kronikk, Bondebladet* 20 september 2001

Aune, J.B. 2002. Økojordbruk gir også miljøproblemer. *Intervju i Norsk landbruk* 121 (7):66-67.

Aune, J. B. 2002. A little bit of fertilizers can do wonders. Interview in *Profile* no. 1: 22-26, Norsk Hydro, Oslo

Aune, J.B. 2003. Desertification control, rural development and reduced CO₂ emissions through the Clean Development Mechanism of the Kyoto Protocol – an impass or a way forward. Dryland Coordination Group Report 23, Noragric, 38 pp

Aune, J. B. 2003: Klima-tiltak mot fattigdom. *Kronikk Bistandsaktuelt* 4: 20.

Aune, J.B. 2005. Matvarekrisen i Sahel. Innlegg i *Vårt land*

Aune, J.B. 2004. Helse og ernæring i Goundara (Kontela kommune), Mali. *Noragric Report* no. 20.

Aune, JB. 2011. Seed priming and micro-dosing. In “Sustainable land management in practice (Lininger et al. eds). FAO.

http://knowledgebase.terrafrica.org/fileadmin/user_upload/terrafrica/docs/topic_page/SLM_in_Practice_english.pdf

Aune, J.B. and S. Grimstad 2001. The Sahel Sudan Ethiopia (SSE) programme. Impact of Norwegian NGO projects on food security, environmental rehabilitation and institution building. In: *Successes in rural development* (R. Haug and J. Teurlings eds.) Noragric, 46-52 pp.

Aune, J.B. and R. Øygard 1998. Integrated plant nutrient management in sub-Saharan Africa- technologies and policies. A NORAD funded study, Noragric, 36 p.

Aune, J.B. and S. Grimstad 1997. Ten years with the Sahel Sudan Ethiopia programme- development assistance through Norwegian non-governmental organisations. A review report, Noragric, 32 pp.

Aune, J. B.; A.Ø. Hansen, J. Veia 1997. Project review of the Programme Intégré de développement de Bafoulabé (PIDEB), Mali. - Noragric, 32 p.

Aune J.B. and A. Aragay 1998. Project review of WAG environmental rehabilitation and development programme, Ethiopia, Noragric, 17 p.

Aune, J.B., M. Skjortnes and A.W. Randriamamonjy 2005. Review of Norwegian support to FIFAMANOR, Noragric Report no. 30.

- Aune, JB and T. Berg. 2009. The environment and development link in BN-funded projects. Report from Bistandsnemda.
- de Haan, C., J. Aune, P. Hiernaux et O. Touré 2000. Programme Pastoral Pilot Ouest Africain (PPPOA). Evaluation a mi-parcours. The World Bank, 44 p.
- Doumbia, M., A. Berthe and J.B. Aune 2005. Integrated Plant Nutrition Management in Mali. Summary Report 1998-2004. Dryland Coordination Group, Report no. 36.
- Haug, R. T. Berg, J.B. Aune, I. Bryceson, and P. Vedeld 1996. Mat og miljø for en bærekraftig utvikling. På oppdrag for miljøverndepartementet, 61 p.
- Kristensen, K., L.P. Randriamarolaze, J. Aune, et E. Rabakonandrianina 2000. Evaluation du projet traction animal, reinvestissements et fonds de roulement à la ferme-école de Tombontsoa-Antsirabe, Madagascar, Centre for Intercultural Communication Stavanger, Rapport 2000:10, 53 p.
- Kristensen, K., E. Rabakonandrianina, J. Aune, et K.L.P. Randriamarolaze 2000. Rapport d'évaluation de la ferme école Tsarafotra, Madagascar, Centre for Intercultural Communication Stavanger, Rapport 2000:9, 53 p.
- Øygard, R., T. Vedeld and J.B. Aune 1999. Good practices in dryland management. The World Bank, 116 p.

Chronicles in newspapers (recent)

- Aune, JB. Miljøfloka in landbruket. Kronikk VG, 19/11-09
<http://www.umb.no/kommunikasjonsavdelingen/artikkel/miljofloka-i-okojordbruket>
- Tveteraas, S. og Aune, J.B. 2011. Hvordan kan landbruket i Sahel tilpasses klimaendringer. Bistandsaktuelt (internett), Mars 2011,
<http://www.bistandsaktuelt.no/Debatt/Kategorier/Tr%C3%A5der?cat=141¤t=252301&thead=252301>
- Aune J.B. Misvisende om økologisk jordbruk. Kronikk Nationen 2 januar 2010.
<http://www.nationen.no/meninger/Kronikk/article4785042.ece>
- Aune, J.B. Kampen om maten. Er økologi riktig ideologi. Intervju Dagens Næringsliv 15/11-2008.

Teaching material

- EDS 215. Agriculture and the environment. Available on classfronter, UMB
- EDS 355. Climate change and development. Available on classfronter, UMB

SELECTED ASSIGNMENTS/PROJECTS UNDERTAKEN

- Researcher/Coordinator of the ICRAF project on Combating Nutrient Depletion in the Ethiopian Highland – 2000-2004, (funded by Norwegian Ministry of Foreign Affairs)
- Integrated Plant Nutrition Management in Mali - 2000-2004, (funded by Dryland Coordination Group)
- Planning of norwegian agricultural assistance to Madagascar, 2006. (financed by NORAD)
- Carbon sequestration, climate change and development, 2003-2005 (funded by Norwegian Research Council)
- Ecology and Development program - structural adjustment and degradation of soil and forests in Tanzania, Zambia and Ethiopia (1991-1996) (funded by Norwegian Research Council)
- Best practices in dryland management – World Bank Study 1999/2000
- West African Pilot Pastoral Programme-mid-term review for the World Bank 1999

Policies for sustainable land management- EU project completed 2001
Assessment of the Norwegian Sahel-Sudan-Ethiopia program
Review of the Ethiopian extension system – 2000 (funded by Dryland Coordination Group)
Evaluation of two Agricultural Schools in Madagascar (Det norske misjonselskap/NORAD)
Planning of Integrated Project Mali, 2004.
Evaluation of FIFAMANOR, Madagascar, October 2005
Ecofarm project in Mali, Sudan and Ethiopia, 2006-2005. Dryland Coordination Group.

ELECTED AND APPOINTED POSITIONS, MEMBERSHIP IN PROFESSIONAL ASSOCIATIONS/SOCIETIES

Member of Noragric Board (2002- 2010)
Member of Noragric Education Comitee (1995-2003)
Member of Environmental Board - Aas commune (1993-1997)
Member of Norwegian Development Association (1993-)
Member of Tomb jordbruksskole board (2003-2006)