




PERSONAL INFORMATION

Petr Havlík



 International Institute for Applied Systems Analysis (IIASA), Schlossplatz 1, A-2361 Laxenburg, Austria
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Sex Male | Date of birth 02/03/1978 | Nationality Czech Republic

POSITION

Acting Program Director - Ecosystems Services and Management Program (ESM) & Head for Environmental Resources and Development (ERD)

WORK EXPERIENCE

April 2020 – Present

Acting Program Director - Ecosystems Services and Management Program (ESM) & Head for Environmental Resources and Development (ERD)

International Institute for Applied Systems Analysis
Schlossplatz 1, 2361 Laxenburg (Austria)

- Coordination of a team of 70+ scientists around the three research Centers
 - a) Global land use model (GLOBIOM) providing agricultural and forest sector foresight, policy impact assessment, and sustainable development solutions analysis
 - b) Center for Landscape Resilience & Management (CLR) assessing landscape ecosystems and their services with special emphasis on sustainability and resilience of the global agriculture-, forest- and low carbon-energy sectors.
 - c) Center for Earth Observation & Citizen Science (EOCS) using earth observation and citizen science to conduct research and provide innovative, cost effective and high quality data, tools and services to help society achieve the sustainable development goals
- Fundraising and project management responsibilities
- Human resource management

Business or sector International, non-governmental Research Institute

November 2017 – March 2020

Deputy Program Director (ESM) & Center Head (ERD)

International Institute for Applied Systems Analysis
Schlossplatz 1, 2361 Laxenburg (Austria)

- Coordination of a team of 20+ scientists around global land use model (GLOBIOM) providing agricultural and forest sector foresight, policy impact assessment, and sustainable development solutions analysis
- Fundraising and project management responsibilities
- Human resource management

Business or sector International, non-governmental Research Institute

October 2014 – October 2017

Senior Research Scholar & Group Leader

International Institute for Applied Systems Analysis
Schlossplatz 1, 2361 Laxenburg (Austria)

- Coordination of a team of 10+ scientists around global land use model (GLOBIOM) providing agricultural and forest sector foresight, policy impact assessment, and sustainable development solutions analysis
- Fundraising and project management responsibilities

Business or sector International, non-governmental Research Institute

July 2007 – September 2014

Research Scholar

International Institute for Applied Systems Analysis
Schlossplatz 1, 2361 Laxenburg (Austria)
Global land use model (GLOBIOM) development

Business or sector International, non-governmental Research Institute

January - June 2007

Research Assistant

October 2014 – October 2017

UMR Economie Publique, INRA Grignon, Thiverval-Grignon, France

July 2007 – September 2014

Spatially explicit biodiversity conservation modelling

Business or sector National Research Institute

EDUCATION AND TRAINING

2006

PhD thesis: Efficient Policy Design for Joint Production of Food and Environment: An Application to Beef and Grassland Biodiversity

University of Montpellier 1, Faculty of Economics, and Mendel University of Agriculture and Forestry Brno, Faculty of Business and Economics

2002

Master degree in Economics of Development of Agriculture, Agri-business and Rural Areas

University of Montpellier 1, Faculty of Economics

2001

Master degree in Economics and Management

Mendel University of Agriculture and Forestry Brno, Faculty of Business and Economics

PERSONAL SKILLS

Mother tongue(s)

Czech

Other language(s)

| | UNDERSTANDING | | SPEAKING | | WRITING |
|---------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C2 |
| French | C2 | C2 | C2 | C2 | C2 |
| German | C2 | C2 | C2 | C2 | C2 |

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages




ADDITIONAL INFORMATION




| | |
|---|--|
| Organisational / managerial skills | <ul style="list-style-type: none">• Manages a team of 20+ scientists at IIASA around the GLOBIOM model• Principal investigator of several research scientific projects with collective teams |
| Participation in international scientific assessments | <p>IPCC – 6th Assessment Report, WG3 Role: Lead Author</p> <p>IPBES – Assessment Report on Land Degradation and Restoration Role: Review Author</p> |
| Job-related skills | <ul style="list-style-type: none">• good understanding of all economic issues related to environmental and agriculture economics• good command of modelling tools, in particular partial equilibrium models |
| Computer skills | <ul style="list-style-type: none">• Proficient in GAMS, some experience with R• Good command of Word, Excel, Powerpoint |
| Driving licence | <ul style="list-style-type: none">• Car driving license (B) |


Publications


120+ peer-reviewed publications including: 16 in Nature family, 3 in Science family, and 4 in Proceedings of the National Academy of Sciences U.S.A

H-factor: 42 (Scopus) – Top 1% Highly Cited Researcher in the category Social Sciences





Hasegawa, T., [Havlik, P.](#), Frank, S. , Palazzo, A.  & Valin, H.  (2019). *Tackling food consumption inequality to fight hunger without pressuring the environment*. *Nature Sustainability* 2: 826-833. DOI:[10.1038/s41893-019-0371-6](https://doi.org/10.1038/s41893-019-0371-6).

[Pastor, A.](#), [Palazzo, A.](#) , [Havlik, P.](#), Biemans, H., [Wada, Y.](#) , [Obersteiner, M.](#) , [Kabat, P.](#) & [Ludwig, F.](#) (2019). *The global nexus of food–trade–water sustaining environmental flows by 2050*. *Nature Sustainability* DOI:[10.1038/s41893-019-0287-1](https://doi.org/10.1038/s41893-019-0287-1).


[Frank, S.](#) , [Havlik, P.](#), [Stehfest, E.](#), [van Meijl, H.](#), [Witzke, P.](#), [Pérez-Domínguez, I.](#), [van Dijk, M.](#), [Doelman, J.C.](#), [Fellmann, T.](#), [Koopman, F.L.](#) et al. (2019). *Agricultural non-CO2 emission reduction potential in the context of the 1.5 °C target*. *Nature Climate Change* 9 (1): 66-72. DOI:[10.1038/s41558-018-0358-8](https://doi.org/10.1038/s41558-018-0358-8).





[Mosnier, C.](#), [Britz, W.](#), [Julliere, T.](#), [De Cara, S.](#), [Jayet, P.-A.](#), [Havlik, P.](#), [Frank, S.](#)  & [Mosnier, A.](#) (2019). *Greenhouse gas abatement strategies and costs in French dairy production*. *Journal of Cleaner Production* 236: e117589. DOI:[10.1016/j.jclepro.2019.07.064](https://doi.org/10.1016/j.jclepro.2019.07.064).




[Chang, J.](#), [Peng, S.](#), [Ciais, P.](#), [Saunio, M.](#), [Dangal, S.](#), [Herrero, M.](#), [Havlik, P.](#), [Tian, H.](#) & [Bousquet, P.](#) (2019). *Revisiting enteric methane emissions from domestic ruminants and their $\delta^{13}C_{CH_4}$ source signature*. *Nature Communications* 10 (1): e3420. DOI:[10.1038/s41467-019-11066-3](https://doi.org/10.1038/s41467-019-11066-3).




[Wang, M.](#), [Tang, T.](#) , [Burek, P.](#) , [Havlik, P.](#), [Krisztin, T.](#), [Kroeze, C.](#), [Leclere, D.](#), [Strokal, M.](#), [Wada, Y.](#) , [Wang, Y.](#) & [Langan, S.](#)  (2019). *Increasing nitrogen export to sea: A scenario analysis for the Indus River*. *Science of the Total Environment*. e133629. DOI:[10.1016/j.scitotenv.2019.133629](https://doi.org/10.1016/j.scitotenv.2019.133629). (In Press)



[Soussana, J.-F.](#), [Lutfalla, S.](#), [Ehrhardt, F.](#), [Rosenstock, T.](#), [Lamanna, C.](#), [Havlik, P.](#), [Richards, M.](#), [Wollenberg, E.](#), [Chotte, J.-L.](#), [Torquebiau, E.](#), [Ciais, P.](#), [Smith, P.](#) & [Lal, R.](#) (2019). *Matching policy and science: Rationale for the '4 per 1000 - soils for food security and climate' initiative*. *Soil and Tillage Research* 188: 3-15. DOI:[10.1016/j.still.2017.12.002](https://doi.org/10.1016/j.still.2017.12.002).




[Stehfest, E.](#), [van Zeist, W.-J.](#), [Valin, H.](#) , [Havlik, P.](#), [Popp, A.](#), [Kyle, P.](#), [Tabeau, A.](#), [Mason-D'Croz, D.](#), [Hasegawa, T.](#), [Bodirsky, B.L.](#), [Calvin, K.](#), [Doelman, J.C.](#), [Fujimori, S.](#), [Humpenöder, F.](#), [Lotze-Campen, H.](#), [van Meijl, H.](#) & [Wiebe, K.](#) (2019). *Key determinants of global land-use projections*. *Nature Communications* 10 (1): e2166. DOI:[10.1038/s41467-019-09945-w](https://doi.org/10.1038/s41467-019-09945-w).

[Fujimori, S.](#), [Hasegawa, T.](#), [Krey, V.](#) , [Riahi, K.](#) , [Bertram, C.](#), [Bodirsky, B.](#), [Bosetti, V.](#), [Callen, J.](#), [Després, J.](#), [Doelman, J.](#), [Drouet, L.](#), [Emmerling, J.](#), [Frank, S.](#) , [Fricko, O.](#) , [Havlik, P.](#), [Humpenöder, F.](#), [Koopman, J.](#), [van Meijl, H.](#), [Ochi, Y.](#), [Popp, A.](#), [Schmitz, A.](#), [Takahashi, K.](#) & [van Vuuren, D.](#) (2019). *A multi-model assessment of food security implications of climate change mitigation*. *Nature Sustainability* 2 (5): 386-396. DOI:[10.1038/s41893-019-0286-2](https://doi.org/10.1038/s41893-019-0286-2).

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[Gidden, M.](#), [Riahi, K.](#) , [Smith, S.](#), [Fujimori, S.](#), [Luderer, G.](#), [Kriegler, E.](#), [van Vuuren, D.P.](#), [van den Berg, M.](#), [Feng, L.](#), [Klein, D.](#), [Calvin, K.](#), [Doelman, J.](#), [Frank, S.](#) , [Fricko, O.](#) , [Harmsen, M.](#), [Hasegawa, T.](#), [Havlik, P.](#), [Hilaire, J.](#), [Hoesly, R.](#), [Horing, J.](#), [Popp, A.](#), [Stehfest, E.](#) & [Takahashi, K.](#) (2019). *Global emissions pathways under different socioeconomic scenarios for use in CMIP6: a dataset of harmonized emissions trajectories through the end of the century*. *Geoscientific Model Development Discussions* 12 (4): 1443-1475. DOI:[10.5194/gmd-2018-266](https://doi.org/10.5194/gmd-2018-266).


Frank, S. , Havlík, P., Stehfest, E., van Meijl, H., Witzke, P., Pérez-Domínguez, I., van Dijk, M., Doelman, J.C., Fellmann, T., Koopman, F.L., Tabeau, A. & Valin, H.  (2019). [Agricultural non-CO2 emission reduction potential in the context of the 1.5 °C target](#). *Nature Climate Change* 9 (1): 66-72. DOI:[10.1038/s41558-018-0358-8](https://doi.org/10.1038/s41558-018-0358-8).

Ermolieva, T., Boere, E., Biewald, A., Havlík, P., Mosnier, A., Leclere, D., Valin, H. , Frank, S. , Obersteiner, M.  & Ermoliev, Y. (2019). [Addressing climate change adaptation with a stochastic integrated assessment model: Analysis of common agricultural policy measures](#). *Financial Statistics Journal* 1 (2) DOI:[10.24294/fsj.v1i2.913](https://doi.org/10.24294/fsj.v1i2.913).



Deppermann, A., Havlík, P., Valin, H. , Boere, E., Herrero, M., Vervoort, J. & Mathijs, E. (2018). [The market impacts of shortening feed supply chains in Europe](#). *Food Security* 10 (6): 1401-1410. DOI:[10.1007/s12571-018-0868-2](https://doi.org/10.1007/s12571-018-0868-2).


Sandstrom, V., Valin, H. , Krisztin, T., Havlík, P., Herrero, M. & Kastner, T. (2018). [The role of trade in the greenhouse gas footprints of EU diets](#). *Global Food Security* 19: 48-55. DOI:[10.1016/j.gfs.2018.08.007](https://doi.org/10.1016/j.gfs.2018.08.007).

Gusti, M., Forsell, N., Havlík, P., Khabarov, N. , Kraxner, F. & Obersteiner, M.  (2018). [The sensitivity of the costs of reducing emissions from deforestation and degradation \(REDD\) to future socioeconomic drivers and its implications for mitigation policy design](#). *Mitigation and Adaptation Strategies for Global Change* DOI:[10.1007/s11027-018-9817-9](https://doi.org/10.1007/s11027-018-9817-9). (In Press)




Baker, J.S., Havlík, P., Beach, R., Leclere, D., Schmid, E., Valin, H. , Cole, J., Creason, J., Ohrel, S. & McFarland, J. (2018). [Evaluating the effects of climate change on US agricultural systems: sensitivity to regional impact and trade expansion scenarios](#). *Environmental Research Letters* 13 (6): e064019. DOI:[10.1088/1748-9326/aac1c2](https://doi.org/10.1088/1748-9326/aac1c2).

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Kim, H., Rosa, I.M.D., Alkemade, R., Leadley, P., Hurtt, G., Popp, A., van Vuuren, D., Anthoni, P., Arneeth, A., Baisero, D., Caton, E., Chaplin-Kramer, R., Chini, L., De Palma, A., Di Fulvio, F. , Di Marco, M., Espinoza, F., Ferrier, S., Fujimori, S., Gonzalez, R.E., Gueguen, M., Guerra, C., Hartfoot, M., Harwood, T.D., Hasegawa, T., Haverd, V., Havlík, P., Hellweg, S., Hill, S.L.L., Hirata, A., Hoskins, A.J., Janse, J.H., Jetz, W., Johnson, J.A., Krause, A., Leclere, D., Martins, I.S., Matsui, T., Merow, C., Obersteiner, M. , Ohashi, H., Poulter, B., Purvis, A., Quesada, B., Rondinini, C., Schipper, A., Sharp, R., Takahashi, K., Thuiller, W., Titeux, N., Visconti, P., Ware, C., Wolf, F. & Pereira, H.M. (2018). [A protocol for an intercomparison of biodiversity and ecosystem services models using harmonized land-use and climate scenarios](#). *Geoscientific Model Development* 11: 4537-4562. DOI:[10.5194/gmd-11-4537-2018](https://doi.org/10.5194/gmd-11-4537-2018). (Submitted)



Lloyd, S.J., Bangalore, M., Chalabi, Z., Kovats, R.S., Hallegatte, S., Rozenberg, J., Valin, H. , & Havlík, P. (2018). [A Global-Level Model of the Potential Impacts of Climate Change on Child Stunting via Income and Food Price in 2030](#). *Environmental Health Perspectives* 126 (9): e097007. DOI:[10.1289/EHP2916](https://doi.org/10.1289/EHP2916).

[Hasegawa, T.](#), [Fujimori, S.](#), [Havlík, P.](#), [Valin, H.](#) , [Bodirsky, B.L.](#), [Doelman, J.C.](#), [Fellmann, T.](#), [Kyle, P.](#), [Koopman, J.F.L.](#), [Lotze-Campen, H.](#), [Mason-D'Croz, D.](#), [Ochi, Y.](#), [Pérez Domínguez, I.](#), [Stehfest, E.](#), [Sulser, T.B.](#), [Tabeau, A.](#), [Takahashi, K.](#), [Takakura, J.](#), [van Meijl, H.](#), [van Zeist, W.-J.](#), [Wiebe, K.](#) & [Witzke, P.](#) (2018). *Risk of increased food insecurity under stringent global climate change mitigation policy*. *Nature Climate Change* 8 (8): 699-703. DOI:[10.1038/s41558-018-0230-x](https://doi.org/10.1038/s41558-018-0230-x).











[Fujimori, S.](#), [Hasegawa, T.](#), [Rogelj, J.](#) , [Su, X.](#), [Havlík, P.](#), [Krey, V.](#) , [Takahashi, K.](#) & [Riahi, K.](#)  (2018). *Inclusive climate change mitigation and food security policy under 1.5°C climate goal*. *Environmental Research Letters* 13 (7): e074033. DOI:[10.1088/1748-9326/aad0f7](https://doi.org/10.1088/1748-9326/aad0f7).

[Bai, Z.](#), [Ma, W.](#), [Ma, L.](#), [Velthof, G.L.](#), [Wei, Z.](#), [Havlík, P.](#), [Oenema, O.](#), [Lee, M.R.F.](#) & [Zhang, F.](#) (2018). *China's livestock transition: Driving forces, impacts, and consequences*. *Science Advances* 4 (7): eaar8534. DOI:[10.1126/sciadv.aar8534](https://doi.org/10.1126/sciadv.aar8534).

[Luderer, G.](#), [Vrontisi, Z.](#), [Bertram, C.](#), [Edelenbosch, O.](#), [Pietzcker, R.C.](#), [Rogelj, J.](#) , [De Boer, H.S.](#), [Drouet, L.](#), [Emmerling, J.](#), [Fricko, O.](#) , [Fujimori, S.](#), [Havlík, P.](#), [Iyer, G.](#), [Keramidas, K.](#), [Kitous, A.](#), [Pehl, M.](#), [Krey, V.](#) , [Riahi, K.](#) , [Saveyn, B.](#), [Tavoni, M.](#), [Van Vuuren, D.P.](#) & [Kriegler, E.](#) (2018). *Residual fossil CO₂ emissions in 1.5–2°C pathways*. *Nature Climate Change* 8 (7): 626-633. DOI:[10.1038/s41558-018-0198-6](https://doi.org/10.1038/s41558-018-0198-6).


[Soterroni, A.](#), [Mosnier, A.](#), [Carvalho, A.](#), [Câmara, G.](#), [Obersteiner, M.](#) , [Andrade, P.R.](#), [Souza, R.C.](#), [Brock, R.](#), [Pirker, J.](#), [Kraxner, F.](#), [Havlík, P.](#), [Kapos, V.](#), [zu Ermgassen, E.](#), [Valin, H.](#)  & [Ramos, F.M.](#) (2018). *Future environmental and agricultural impacts of Brazil's Forest Code*. *Environmental Research Letters* DOI:[10.1088/1748-9326/aaccbb](https://doi.org/10.1088/1748-9326/aaccbb).

[van Meijl, H.](#), [Havlík, P.](#), [Lotze-Campen, H.](#), [Stehfest, E.](#), [Witzke, P.](#), [Domínguez, I.P.](#), [Bodirsky, B.L.](#), [van Dijk, M.](#), [Doelman, J.](#), [Fellmann, T.](#), [Humpenöder, F.](#), [Koopman, J.F.L.](#), [Müller, C.](#), [Popp, A.](#), [Tabeau, A.](#), [Valin, H.](#)  & [van Zeist, W.-J.](#) (2018). *Comparing impacts of climate change and mitigation on global agriculture by 2050*. *Environmental Research Letters* 13 (6): e064021. DOI:[10.1088/1748-9326/aabdc4](https://doi.org/10.1088/1748-9326/aabdc4).

[Grubler, A.](#) , [Wilson, C.](#) , [Bento, N.](#), [Boza-Kiss, B.](#), [Krey, V.](#) , [McCollum, D.](#), [Rao, N.](#) , [Riahi, K.](#) , [Rogelj, J.](#) , [De Stercke, S.](#), [Cullen, J.](#), [Frank, S.](#) , [Fricko, O.](#) , [Guo, F.](#), [Gidden, M.](#), [Havlík, P.](#), [Huppmann, D.](#) , [Kiesewetter, G.](#), [Rafaj, P.](#), [Schöpp, W.](#) & [Valin, H.](#)  (2018). *A low energy demand scenario for meeting the 1.5 °C target and sustainable development goals without negative emission technologies*. *Nature Energy* 3 (6): 517-525. DOI:[10.1038/s41560-018-0172-6](https://doi.org/10.1038/s41560-018-0172-6).


[Kanter, D.R.](#), [Musumba, M.](#), [Wood, S.L.R.](#), [Palm, C.](#), [Antle, J.](#), [Balvanera, P.](#), [Dale, V.H.](#), [Havlík, P.](#), [Kline, K.L.](#), [Scholes, R.J.](#), [Thornton, P.](#), [Tittonell, P.](#) & [Andelman, S.](#) (2018). *Evaluating agricultural trade-offs in the age of sustainable development*. *Agricultural Systems* 163: 73-88. DOI:[10.1016/j.agsy.2016.09.010](https://doi.org/10.1016/j.agsy.2016.09.010).

[Rutten, M.](#), [Achterbosch, T.J.](#), [de Boer, I.M.J.](#), [Crespo Cuaresma, J.](#), [Geleijnse, J.M.](#), [Havlík, P.](#), [Heckelei, T.](#), [Ingram, J.](#), [Leip, A.](#), [Marette, S.](#), [van Meijl, H.](#), [Soler, L.-G.](#), [Swinnen, J.](#), [van't Veer, P.](#), [Vervoort, J.](#), [Zimmermann, A.](#), [Zimmermann, K.L.](#) & [Zurek, M.](#) (2018). *Metrics, models and foresight for European sustainable food and nutrition security: The vision of the SUSFANS project*. *Agricultural Systems* 163: 45-57. DOI:[10.1016/j.agsy.2016.10.014](https://doi.org/10.1016/j.agsy.2016.10.014).


[Seneviratne, .I.](#), [Wartenburger, R.](#), [Guillod, B.P.](#), [Hirsch, A.L.](#), [Vogel, Martha M.](#), [Brovkin, V.](#), [van Vuuren, D.P.](#), [Schaller, N.](#), [Boysen, L.](#), [Calvin, K.V.](#), [Doelman, J.](#), [Greve, P.](#), [Havlík, P.](#), [Humpenöder, F.](#), [Krisztin, T.](#), [Mitchell, D.](#), [Popp, A.I.](#), [Riahi, K.](#), [Rogelj, J.](#) , [Schleussner, C.-F.](#), [Sillmann, J.](#) & [Stehfest, E.](#) (2018). *Climate extremes, land-climate feedbacks and land-use forcing at 1.5°C*. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 376 (2119): e20160450. DOI:[10.1098/rsta.2016.0450](https://doi.org/10.1098/rsta.2016.0450)




Publications

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[Byers, E.](#) , Gidden, M., [Leclere, D.](#), [Burek, P.](#) , Ebi, K.L., [Greve, P.](#), Grey, D., [Havlik, P.](#), Hillers, A., [Johnson, N.](#), [Kahil, T.](#), [Krey, V.](#) , [Langan, S.](#) , Nakicenovic, N., Novak, R., [Obersteiner, M.](#) , [Pachauri, S.](#) , [Palazzo, A.](#) , [Parkinson, S.](#), [Rao, N.](#) , [Rogelj, J.](#) , [Riahi, K.](#) , [Satoh, Y.](#), [Wada, Y.](#)  & [Willaarts, B.](#) (2018). *Global exposure and vulnerability to multi-sector development and climate change hotspots*. *Environmental Research Letters* 13: e055012. DOI:[10.1088/1748-9326/aabf45](https://doi.org/10.1088/1748-9326/aabf45).

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