**Barrett, C. B., Harrison, G. W., Jensen, N., Morsink, K., Schneider, M., Swarthout, J. T., & Upton, J. (2019). Do No Harm: Evaluating the Welfare Effects of Behavioral Insurance Interventions in Ethiopia.**

* Product take-up itself is a suboptimal measure for welfare, as some individuals decrease their personal welfare by taking up insurance. Important, individual-level factors are (risk) preferences and beliefs.
* Consequence of this heterogeneity is that nudges/behavioural interventions should also be tailored to individuals’ characteristics
* Goal: Identify subgroups that respond (positively or negatively) to various interventions

**Harrison, G. W., Morsink, K., & Schneider, M. (2020). Do no harm? The welfare consequences of behavioural interventions (Vol. 12). CEAR Working Paper 2020.**

* “We demonstrate that typical interventions that promote index insurance, even when increasing purchase, can be an important driver of average welfare losses. Many individuals who do take-up index insurance in our experiment are actually worse off in terms of welfare, as defined by their own risk preferences, than they would have been without the insurance, and these welfare losses dominate on average. We show that offering a menu of behavioural interventions, as well as targeting interventions to individuals with specific characteristics, may improve welfare-enhancing take-up.”
* “The objective of insurance is, ex ante any actual loss, to reduce the expected variability of income, by paying an insurance premium now, in exchange for a claim payment later, in case the future state is realised where the insured experiences a loss. Therefore, we focus on an assessment of the expected welfare of buying insurance to an individual, compared to the expected welfare of not buying insurance to the same individual, and term this measure the Expected Consumer Surplus (ECS) of insurance decisions.”
* Overall: Most behavioural interventions increase take-up rates of insurance products, but many are excess purchases decreasing individual welfare. Some indication of improved results when individuals can self-select into treatments. Effects may vary across subgroups. Gender, for example, yields different effect estimates for men and women. But experimental data based on a student sample.

**Chantarat, S., Mude, A. G., Barrett, C. B., & Turvey, C. G. (2017). Welfare impacts of index insurance in the presence of a poverty trap. World Development, 94, 119-138.**

* Effectiveness of IBLI depends on initial herd size in combination with the insurance premium. Large herds neither benefit nor suffer strongly. Very small herd sizes are already in a negative spiral / collapse below the poverty line. Medium sized herds just above the poverty line benefit most due to protection from falling under the critical poverty line.
  + “Our analysis finds that IBLI subsidies targeted toward vulnerable-but-non-poor pastoralists create an effective safety net by protecting such households from slipping into a poverty trap after a drought.” P. 120
* Good explanation of IBLI (dis-) advantage

**Hastie, T., Tibshirani, R., Friedman, J. H., & Friedman, J. H. (2009). The elements of statistical learning: data mining, inference, and prediction (Vol. 2, pp. 1-758). New York: springer. Handel, B. R., Kolstad, J. T., Minten, T., & Spinnewijn, J. (2020). The social determinants of choice quality: evidence from health insurance in the Netherlands (No. w27785). National Bureau of Economic Research.**

* “[C]hoice quality is strongly correlated with level of education and job and displays important geographic, intra- rm and family peer effects” p. 4
* Comparing high- and low-quality decision makers

**Harris, A., & Yellen, M. (2024). Decision-Making with Machine Prediction: Evidence from Predictive Maintenance in Trucking. en. In:(Jan. 2024).**

* …

**Athey, S., Keleher, N., & Spiess, J. (2025). Machine learning who to nudge: causal vs predictive targeting in a field experiment on student financial aid renewal. Journal of Econometrics, 105945.**

* …

**Athey, S., Simon, L. K., Skans, O. N., Vikstrom, J., & Yakymovych, Y. (2023). The heterogeneous earnings impact of job loss across workers, establishments, and markets. arXiv preprint arXiv:2307.06684.**

* …

**Zewdie, Y., Taye, M., & Fava, F. (2020, July). *Livestock insurance for pastoralists in Ethiopia: Exploring opportunities for scaling* (ILRI Policy Brief No. 29). International Livestock Research Institute.** [**https://cgspace.cgiar.org/handle/10568/110918**](https://cgspace.cgiar.org/handle/10568/110918)

* Pastoralists make up about 14% of Ethiopia’s population— approximately 110 million people—and inhabit about 60% of the country’s landmass. The pastoral production system in Ethiopia is characterized by extensive livestock grazing and seasonal migration. Pastoralists raise a significant proportion of the national herd1, and most of Ethiopia’s live animal and meat exports are also sourced from pastoral areas.
* Experience has shown that conventional commercial insurance is not viable for extensive pastoral production systems due to, among other things, the high transaction costs required to verify claims and losses. Index insurance is an attractive alternative in that it does not insure individual losses per se, but is linked to independently verifiable, transparent and pre-defined quantitative indicators.

**Scoones I. (Ed.). (2023). Pastoralism, uncertainty and development. Practical Action Publishing. https://practicalactionpublishing.com/book/2667/ pastoralism-uncertainty-and-development.**

* Insured households are mostly male, older, have a higher socio-economic status with multiple income sources
* IBLI can support the poor but uptake is lower and alternative responses are important
* Poorer pastoralists respond to droughts more often by moving and pooling resources

**Bertram‐Huemmer, V., & Kraehnert, K. (2017). Does Index Insurance Help Households Recover from Disaster? Evidence from IBLI Mongolia. *American Journal of Agricultural Economics*, *100*(1), 145–171.** [**https://doi.org/10.1093/ajae/aax069**](https://doi.org/10.1093/ajae/aax069)

* “Herders typically own a mix of five species: sheep, goats, horses, cattle, and camel. Sheep provide most of the meat for households’ subsistence needs. Cattle primarily provide milk that is consumed and used for other dairy products. Cashmere wool derived from goats is an im portant source of cash income. Horses and camels are mainly used for tending smaller livestock and for transportation; they are also considered a prestigious form of storing wealth. All animal species are sold as needed”
* IBLI consumers “recovered faster from shock induced asset losses than comparable uninsured households”, effect vanishes after 4 years
* *Limitation for thesis: welfare for what time frame calculated?*

Kahiu, N., Anchang, J., Alulu, V., Fava, F. P., Jensen, N., & Hanan, N. P. (2024). Leveraging browse and grazing forage estimates to optimize index-based livestock insurance. *Scientific Reports*, *14*(1). <https://doi.org/10.1038/s41598-024-62893-4>

* “Pro longed droughts create water and forage shortages, malnutrition, and weakened immunity, rendering livestock susceptible to diseases, consequently increasing mortality36,39. Disease outbreaks ranked as the second (19%) leading cause of livestock mortality in the region, particularly during the dry season when livestock congregate around limited foraging and water sources, facilitating disease transmission. While drought and disease persist as predominant factors contributing to mortality in specific animal species, their impact varied significantly among different types. In terms of individual numbers, **shoats** exhibited the highest vulnerability to mortality from both drought and disease cause. However, when considering livestock population in TLUs, **cattle** emerged as the most significant loss experienced by pastoralists during drought, while camels were the most susceptible to diseases”

**Jensen, N. D., Mude, A. G., & Barrett, C. B. (2018). How basis risk and spatiotemporal adverse selection influence demand for index insurance: Evidence from northern Kenya. *Food Policy*, *74*, 172–198. https://doi.org/10.1016/j.foodpol.2018.01.002**

* There is some indication that demand for IBLI is highest among those with the least amount of risk aversion and that demand falls as risk aversion increases. Although the coefficient estimates are too imprecise to draw conclusions about the role of risk aversion in demand for IBLI, they are broadly supportive of the literature that frames index insurance uptake as a **technology** uptake. The generally low rates ofc overage purchased by those that do purchase IBLI supports this framing.
* “Perhaps most surprising was how unrelated demand and household characteristics were. No clear strong monotonic relationships exist between demand for IBLI and gender, age of household head, education, income, asset wealth, or ratio of income from livestock, an indicator of the relative risk that drought could pose to the household. Herd size, which one might assume would be the key driver of insurance demand, was only statistically significant in one case” p. 184

**Takahashi, K., Ikegami, M., Sheahan, M., & Barrett, C. B. (2015). Experimental evidence on the drivers of Index-Based livestock insurance demand in Southern Ethiopia. *World Development*, *78*, 324–340. https://doi.org/10.1016/j.worlddev.2015.10.039**

* Our estimation results show that consumer education through the provision of skit audio tapes and comics improves knowledge of the pro duct, but that a more accurate understanding of IBLI does not necessarily have significant causal impacts on uptake.
* On the other hand, we find that price incentives created through discount coupons effectively and substantially increase current period uptake rates without lowering future demand by creating a low price reference point
* Also, in contrast to our a priori expectation, we find that the education level of a household head is negatively correlated with IBLI uptake. We hypothesize that educated household heads may have alternative sources of formal or informal insurance, which reduces their demand for IBLI. But the exact mechanism remains **uncertain** and a topic for **future** research

**Takahashi K., Noritomo Y., Ikegami M., & Jensen N. D. (2019, October 23). *Understanding Pastoralists’ Dynamic Insurance Uptake Decisions: Evidence from Four-year Panel Data in Ethiopia*. Copyright © 2007-2008.** [**https://grips.repo.nii.ac.jp/records/1723**](https://grips.repo.nii.ac.jp/records/1723)

* “After controlling for observed household characteristics, our study reveals that households that have bought insurance once tend to buy it repeatedly, regardless of payouts. It also reveals that their decisions are not substantially affected by the decisions of others in their social network.” 🡪 perhaps create binary variable of whether hh bought insurance in previous round 🡪 “learning by doing effects” p.24
* uptake of others in one’s network do not influence one’s own demand, whereas we observe some suggestive evidence of positive learning-by-doing effects
* “indicating that a household that purchases IBLI once is more likely to purchase coverage again”
* We first find that households with higher per capita income, more risk-tolerance and higher education of household heads are more likely to buy IBLI

**Gehring, K., & Schaudt, P. (2024). Insuring Peace: Index-Based Livestock Insurance, Droughts, and Conflict. *SSRN Electronic Journal*.** [**https://doi.org/10.2139/ssrn.4702292**](https://doi.org/10.2139/ssrn.4702292)