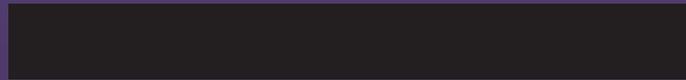




Episode 1

Are there monsters under the bed?



MONSTER
under
the **BED**



Podcast: Monster Under the Bed

© European Investment Bank, 2019.

All rights reserved.

All questions on rights and licensing should be addressed to editors@eib.org

The findings, interpretations and conclusions are those of the authors and do not necessarily reflect the views of the European Investment Bank.

For further information on the EIB's activities, please consult our website, www.eib.org. You can also contact our info Desk, info@eib.org.

Published by the European Investment Bank.

Are there monsters under the bed?

Monster Under the Bed

Transcript: Episode 1

Host: Don't be scared. This is the podcast that always leaves the light on. This is Monster Under the Bed. The podcast that takes some of the fears and myths in our society and busts them wide open. My name is Allar Tankler.

Young girl's voice: Well, I guess I – before, when I was younger, I liked to sleep in the light. But now, because my sister likes to sleep in the dark, I got used to it. I might have been a little scared of the dark...

Allar: Okay, why do you think darkness is scary?

Girl: Well, maybe because I can't see anything? It's all, like, black?

Allar: So what do you want to see?

Girl: Sometimes I like when I see my sister in her bed.

Allar: That was my daughter **Liv**, who is seven. And until fairly recently... Sorry! When she was younger, we kept the light on in the corridor when she went to bed, or she had a unicorn-shaped nightlight next to her. She's pretty cute, so we went along with it.

But I have a confession to make. Sometimes when my family is away, or I'm on a business trip somewhere by myself, I also leave a small light on – in the bathroom, or maybe in the hallway. I'm 38 years old! Not so cute anymore, right?

Leaving a light on uses electricity. It wears out the lightbulb, too. So I started wondering what the environmental cost of these monsters under the bed is. Was I causing greenhouse gas emissions because I was a bit scared of the dark?

I realized that the monsters under the bed are but one myth out of many that keep us from doing the rational thing. So, here I am, I decided to do a podcast about these myths.

My name is **Allar Tankler** and I work at the European Investment Bank, the EU bank. We have all kinds of experts here who can help me explore different fears and beliefs people have which are costing us as a society. In each episode of the podcast, we fight one imaginary monster under the bed and, hopefully, win the battle for a more rational way of doing things.

So that you don't **miss** an episode, **subscribe** to Monster Under the Bed on iTunes, Acast, Stitcher, player.fm or wherever you get your podcasts.

And let me know if **you** can think of a monster we should expose on future episodes. Get in touch with me on Twitter [@AllarTankler](https://twitter.com/AllarTankler) or you can just tag [@eib](https://twitter.com/eib).

We'll start off by going back to the **actual** monsters under the bed, if there is such a thing. I wanted to know how much greenhouse gas are the monsters under the bed – or at least our fear of them – generating.

But first – why do we fear them, in the first place? I decided to ask an expert. It was pretty difficult to arrange for a sit-down talk with her, because she is 11, and she's also my daughter. Her name is **Mae**. I asked her why SOME people are scared of the dark.

Mae: Because they can't see anything, and their imagination... they think that if I can't see anything, maybe there is something in the dark that I don't know of, and they don't want to be surprised

When it's dark, and you hear something – even like the little... when somebody rolls over in their bed, they think I can't see why that noise was made, I can only hear it, and I got no idea what made that noise and so, well, yeah, they start thinking: 'Oh no, there's a thief in the house!'

Allar: Ah, so you're more worried about thieves than monsters.

Mae: My sister is worried about thieves and kidnappers and stuff like that. You can ask her.

Allar: Really, you're scared of thieves and kidnappers?

Liv: Yeah?

Allar: Not monsters?

Liv: No, because I know monsters are not real?

Allar: Ah, but thieves and kidnappers are real.

Liv: Yes.

Allar: So that makes them scarier.

Liv: Mhm.

Allar: I'm proud to reiterate that I'm the father of such rational-sounding children! You can't argue with the data provided by these kids – they either

were or had been afraid of the dark when trying to go to sleep, and they preferred to sleep with some light on.

Now, before I went to find out how much the planet is being warmed because of these supposed monsters and kidnappers, I wanted to understand what was behind this fear that some people had. I called up a psychologist, who has had a lot of experience counselling kids. She also happens to be my mother. Her name is **Meeli Tankler**, and she's based in Estonia. For starters, I asked if I had been afraid of the dark as a kid.

Meeli: I cannot recall that you were afraid. But I also cannot recall that you were alone in darkness. I think this is connected to being alone in darkness.

Allar: Ah, so I was most of the time sharing the bedroom with someone, either with you, or one of my siblings?

Meeli: Yes, yes, that's true.

Ok, so maybe the reason why I don't feel comfortable in the dark by myself now as a grown-up is because I never had to adjust to being alone in the dark as a child! But I also wanted to know what psychology tells us about why people are afraid of the dark at all.

Meeli: I believe one of the main reasons is that in darkness you don't control your environment. You don't know what's happening around you, you don't see anything and - as normal people who have good eyesight take so much information from our visual experiences – when we are put in the darkness we don't have this stimuli and we don't know what's happening around us.

But then we have to make a difference between fear and phobia. And phobia means this fear is very strong, and is already disturbing a person's normal life. And this may have several different reasons. There can be some experiences from childhood, when the child has been left in the darkness as a punishment, and remembering this experience. It can also be something that happened in the dark that was not pleasant and that created a great fear and that person remembers this all through their life. But there can also be some stories that have been told.

Allar: I don't know that the European Investment Bank has any specialists who could authoritatively tell me that there are no monsters under the bed. And that there is nothing to be afraid of in the dark – but I **do** know there are some

people working here who can tell me how much this fear of the dark is costing the environment. It is raining and they do work in another building, but I guess I better pay them a visit.

So I'm now going to meet **Wouter Meindertma**, who's a climate change specialist in our safeguards and quality management department at the European Investment Bank. And what he does is he measures the climate impacts of all of the projects that the bank does, so I'm hoping he knows also how to measure the climate impact of monsters under the bed.

Allar: Wouter, do you have kids?

Wouter: I don't

Allar: Do you live by yourself, or you live with a partner?

Wouter: I live with my wife.

Allar: Ok, so I assume that if you don't have kids, you don't have the need to leave the light on at night because you're afraid of the dark or anything?

Wouter: No, we generally don't leave the light on, that's true.

Allar: Well, I gotta tell you, I sometimes leave the light on when I'm by myself, and I leave the light on for my daughter who is 7 years old and who sometimes has difficulties falling asleep without the light on. So we've been wondering what's the climate impact of those lights that are being left on. So how would we go about measuring that impact?

Wouter: So it's a set of calculations that we would make. We would for example first look at a single household, and we would think about the number of lights you would leave on. Let's say you only leave a light on in the bedroom, then we are talking about one light. We would then think about how long you leave the light on, that depends on how long you sleep – I guess, let's say, 8 hours a night, typically. We would look at the electricity consumption of your lightbulb – so the amount of watts your lightbulb consumes. And we would then multiply this by the time the light is on, we would multiply this by the amount of nights in a year – if you would like to know the answer per year. And then we would look at the number of households, the number of people that leave the light on at night. We would multiply that by the electricity consumption of the lightbulb by night and we would then have the total electricity consumption of leaving the light on for a certain amount of people.

Allar: Do you think we could do kind of a back-of-the-envelope calculation? I looked up, in the EU there's 220 million households 65 million households with at least one child. So I would say you know let's say roughly half of those households have a child less than nine years old, that's a pretty rough estimate, but let's go with that. In addition, there's 70 million single person households and a lot of these are elderly people. So let's say a proportion of those as well leave a light on. So I would say 50 million households in the EU leave one light on for, let's say they would do it not every night, let's say they would do it for 200 nights. So that's 50 million times 200 nights per year that's already ... what?

Wouter: 200 nights a year?

Allar: Let's say that.

Wouter: Ok, we're talking really big numbers here, Allar. So we have 50 million households, we have 8 hours, and we have 200 nights, and... the calculation doesn't work because I shouldn't have put the hours here... and then we are talking about 80 billion hours.

Allar: 80 billion hours

Wouter: 80 billion hours. While we were speaking I googled the average energy consumption of a lightbulb, I found a random figure of 50 watts. Now we can multiply these hours by these watts and then we have so-called watt-hours. And then we can divide this number by 1000 to arrive at kilowatt-hours. And if we now have a typical emission-factor, which are the emissions per kilowatt-hour to produce the electricity, for example from burning coal or natural gas, but it could also be from using solar or wind energy – it varies in the EU, ok? In France it is much lower because there is more nuclear, in Germany it could be higher, cause there's more coal. But let's assume 500 grams per kilowatt-hour and then I'm talking about grams of CO₂

Allar: Ok...

Wouter: We get a tremendous amount of grams, namely 600 billion grams. Now, nobody can work with that many grams, so I suggest we convert it to tons. At the EIB we usually report our carbon footprint in kilotons, but for now we can work with tons. And for that I would need to divide these grams by 1000 to arrive at kilograms, so roughly the size of a litre of water, and another 1000 to arrive at tons. So then we are talking about 600 000 tons of CO₂.

Allar: Wow that sounds like a lot.

Wouter: Yes, it represents roughly the emissions of 100,000 households in the EU.

Allar: Wow. In a year?

Wouter: In a year.

Allar: Wow. So from that it sounds like leaving the light on just because people are afraid of monsters under the bed has a pretty big impact on the environment. But how does that – if you look at it in comparison with some of the other things that have an impact on the environment, some of the other things that we do in our homes, how does the stack up? Is that a big impact or is that minor, compared to everything else?

Wouter: If you do a similar thing and you would take, for example, the energy consumption of heating in your house, or you would think about the car that you drive, or you would think about the food that you consume - this light is peanuts. If you're looking at a household, then by far the largest impact is flying. If you fly somewhere – if you regularly fly, if you go on holiday, if you go on business trips - that is by far the largest part of your impact.

Allar: But here at the at European Investment Bank we don't look at it from a household point of view, we look at economy as a whole and we look at different sectors of the economy. How do we calculate the greenhouse gases from different economic activities – can you give us an example?

Wouter: Yeah I can give you an example. So here at the European Investment Bank we invest in a lot of different types of project. We finance – it ranges from education to healthcare to energy to transport and to industry...

Allar: And just to be very clear about this: everything has a climate impact, right? It's not just the energy production that has climate impact, it's not just burning coal that has an energy impact, building a school also has an energy impact, right?

Wouter: That's correct. Almost all activities that we in a society have they consume energy: we need energy; we need materials for that, so that causes greenhouse gas emissions because we consume fuels. However, some sectors have a much higher impact than others. Industry, energy and transport, and to a certain extent, agriculture – they have the largest climate impact. What we

mostly do is we look at the resources and the energy consumed in these projects, and a typical omission per unit of resource. And by multiplying these two aspects with one another we calculate the carbon footprint of an investment. What we also do for many types of projects is we calculate the climate impacts of a project and we then assign a cost to this impact. So we have a price per tonne of carbon, an internal shadow carbon price, and by applying this price to the emissions we put a price, we put a monetary value on this impact, and we make sure this impact is included in the economic cost-benefit analysis.

Allar: OK, so we try to make sure that the benefit that the project creates outweighs the cost to the environment so to say.

Wouter: Exactly. And maybe an interesting example would be public transport. So the EIB finances a lot of public transport projects and they bring many types of benefits: they connect different regions, they provide employment, they could lead to lower emissions of harmful substances, they can even improve safety - if you ride on the metro, you could have less traffic accidents. You have less congestion, for example. But another important impact: if you manage to get people from the car into metro, into a train, then the energy consumption per passenger and also the emissions per passenger become much lower. So when we calculate the climate impact of such a project, we think it's important to report the absolute omissions, so the actual omissions of the project, but it is also interesting to indeed make this comparison with a plausible alternative situation. And for something like a metro we would then do an analysis, and we would determine: if we had not built this metro, what would have been the likely modality, the transport modality that these people, that these passengers would have used to go to work, to go to school, or go shopping. So we compare the emissions of the metro project with the emissions of the baseline which would be driving, taking the bus, cycling.

Allar: Ok, so as you heard, leaving the light on at night is peanuts compared to some of the other ways we impact the environment.

Even if my assumptions about the prevalence of the fear were rather high, it was more than a half a million tons of greenhouse gas, just to keep evil spirits at bay!

I went back to Meeli, the psychologist, also known as my mother, to see if there are ways to help people deal with their fear of darkness.

Meeli: There are different kinds of treatment, but especially when we speak about children, one way of treating this strong fear is just being together with the child in darkness. Not leaving the child alone, not saying that there's nothing in the darkness, but just being in the darkness together with the child, maybe even holding hand or touching, so that the child knows that there is someone also with them. And creating these safe experiences of being in the darkness.

Allar: This was encouraging – maybe we can all hold each other's hand, and reduce our CO2 emissions! But she also told me something really alarming: she thinks people are becoming more and more afraid of the dark!

Meeli: I believe one of the reasons why more and more people are afraid of the darkness is also that we are so urbanized – we live in so much light. So we don't experience total darkness very often. When we walk around in the city in the evening, all the streetlights are there, and we don't experience actual darkness. And when we happen to be in actual, total darkness, it is so much more frightening because it is so unusual.

Allar: I also went back to the 2 experts you heard in the beginning of the show for some advice. I asked them how to deal with fear of the dark.

Liv: Uhh...

Mae: I know

Liv: I know!

Allar: What?

Mae: So you can... for example when your parents put on music, so you know they are always there.

Allar: So you can hear your parents... If you can hear your parents that makes it better.

Liv: Yeah.

Mae: I like knowing that my parents are there. Then I can tell myself: this is not real, my parents are there, if it were, they're gonna do something about it.

Allar: What's not real?

Mae: Like, maybe something I hear and I think: 'Monster!' or 'Thief!' or something like that.

Allar: Ok, and then if you hear your parents then you know it's not there because...

Mae: ... it's my imagination.

Allar: ... otherwise, they would do something.

Children together: Yeah!

Allar: And here's another tip:

Mae: I think it is especially scary if you, I don't know, just watched a movie with some kind of villain, or read a book, that's somewhat scary. And then it's hard to go to sleep because your head keeps... like, you're thinking about the book, or the movie, and you're thinking about the bad things that happened in the movie and you think they could happen, like, right now.

Allar: So what do you do?

Mae: I think I just picture, like, one of my dreams, or things I want to do one day... If I want to read a scary book before bedtime, I read the scary book and then I read one of Liv's fairy princess books and it helps me go to sleep, really.

Allar: Apparently what the specialists call 'exposure therapy' is a common cure. This means exposing the patient to non-threatening doses of darkness.

So I'll be doing a little exposure therapy on myself now.

(Light switch flicks)

Allar: I have now turned off all the lights here in the studio, and I have to say, it does already feel a little different. I don't know if you can also tell by my voice. Anyway, I need to get out of here, quick.

No I can do this. The team here at Monster under the bed will be tackling other myths and fears in the next episodes of the show. We will look at what drives us to make even more consequential, economically questionable choices than leaving a light on... Oh, this is creepy!

So tune in again next week for another episode, and in the meantime, subscribe to the podcast. And get in touch with me on Twitter to tell me how you've gotten rid of your fear of the dark – I'm [@AllarTankler](#).

Bye now.



MONSTER under the BED



European
Investment
Bank

The EU bank