Source: http://www.npr.org/series/248799434/planet-moneys-t-shirt-project

Folks: This document, prepared from an NPR radio program (link above), must be studied in conjunction with the viewing of the related 5-part documentary (total time about 1 hour) available **here**.

Planet Money Explores the Economics of T-Shirts

December 02, 2013 4:00 AM

Our Planet Money team is making a T-shirt and following the shirt around the world as it gets manufactured — from the farms where the cotton is grown to the factories where the shirts are sewn together. All this week on *Morning Edition* and *All Things Considered* we'll be hearing stories about the fascinating world behind that T-shirt.

Radio Transcript

RENEE MONTAGNE, HOST: This week, NPR will be reporting on a special Planet Money project, making a T-shirt from scratch, and reporting on each step. Our David Greene

talked to Planet Money's Alex Blumberg and Adam Davidson.

DAVID GREENE, HOST: Guys, welcome.

ALEX BLUMBERG, BYLINE: Hey.

ADAM DAVIDSON, BYLINE: Hey, David. Great to be here.

GREENE: So, a T-shirt. I mean, we at NPR make T-shirts. A lot of our member stations make T-shirts. Why are we making another one, here?

DAVIDSON: We at Planet Money have been incredibly curious about how this global economy works. And we've come to the conclusion that one of the best ways to report on something is to actually become a participant in that thing. So, when we were trying to figure out what toxic assets are all about - that phrase people heard all around the financial crisis...

GREENE: Mm-hmm.

DAVIDSON: ...we actually bought a toxic asset and watched it die, and found out what was inside of it. And we learned a great deal from that. And so we wanted to participate in the global economy. And we're going to actually follow our T-shirt as it is made around the world. We were inspired in part by the fabulous book, "The Travels of a T-Shirt in the Global Economy" by Pietra Rivoli, which tells this story, in beautiful detail, how every T-shirt you own is touched by dozens, hundreds, thousands of hands in nearly every continent as it's made.

GREENE: OK. So, the potential to learn a ton about the economy. Was it easy to have a T-shirt made?

BLUMBERG: Turns out, turning a ragtag group of public radio reporters into a T-shirt company is very difficult.

GREENE: OK.

BLUMBERG: From the get-go, we approached it all wrong. We thought, OK, first thing, what's a T-shirt made of? Cotton. We've got to get some cotton. So we actually sent our reporter on Chana Joffe-Walt down to Texas. It turns out, a lot of cotton is grown in Texas.

GREENE: Mm-hmm.

BLUMBERG: She talked to some farmers there. That farmer agreed to sell us two bales of cotton, which is sort of a small order for him, but he was like, OK, you're doing this project. But then, all these questions came up. You know, a bale of cotton is, like, 500 pounds.

GREENE: That's a lot of cotton.

DAVIDSON: Yeah. Right. So what do we do? Do we rent a U-Haul? And then it got even more confusing, because I then went to the next step on the chain, which is a spinning mill in North Carolina. This is the place that turns raw cotton into spun thread, or yarn. And I show up and I tell this guy, hey. We're going to be bringing a couple bales of cotton, and we just want to hire you to spin that into thread. He said if I take your random cotton, you're going to have to pay to completely clean all the equipment of this entire factory when we're done, because your cotton is going to pollute my machinery. If I don't know the quality of the cotton, then I can't use that machinery until it's cleaned.

BLUMBERG: It became clear that the way we were going about this was a little bit like saying, I want to make a laptop. I'm going to start by mining my own aluminum.

(LAUGHTER)

DAVIDSON: When you're sitting around, imagining how a T-shirt is made and you say, well, it starts with a seed in the ground, and that becomes a cotton plant, and then that cotton is - that's the opposite of how actual companies think about it.

GREENE: Oh, it is? Why is that?

DAVIDSON: Yes. Because actual companies think about: I have product on the shelf, and that product will have certain qualities. It'll have a certain level of softness or durability. It'll come in at a certain price point. And then they go backwards, and order the right things so that they have the right product they want.

So we were coming at it from the very beginning, and we really needed to start at the end.

BLUMBERG: And the very first thing it turns out we needed to know was: What is our T-shirt going to look like? The new plan was to have Jockey - the apparel and T-shirt company - help us, and use their supply chain. They introduced us to the factories that they use. Those are the factories that we visited. And we finally came up with something, which, with your permission, I'll show to you right now.

GREENE: That would be great.

BLUMBERG: Here we go.

(SOUNDBITE OF CLEARING THROAT)

BLUMBERG: This is a prototype of our design.

GREENE: Alex Bloomberg is taking something out of his black backpack in the studio.

BLUMBERG: All right. And David, you're seeing, for the first time, the official design of the Planet Money T-shirt. Here you go.

GREENE: Ah. What am I looking at, here?

BLUMBERG: What you're looking at...

GREENE: Is that a squirrel holding a martini glass?

BLUMBERG: ...is a squirrel holding a martini glass.

GREENE: OK.

BLUMBERG: So, the backstory to this: What real manufacturers do, apparel manufacturers, when they're coming up with a design, they are trying to figure out: What is the essence of the brand? And that should be your design. So, we got this advice: Think about what Planet Money is, and then try to come up with visual ideas that would represent that. So we thought we'd take these complicated economic concepts, try to make them simple. We're accessible. We're friendly, like a squirrel...

GREENE: Mm-hmm.

BLUMBERG: ...and also we're fun, like a martini glass. But there's also a visual pun embedded in that image.

GREENE: And am I supposed to see it already?

BLUMBERG: So it's a visual pun, and it has to do with this famous economist, John Maynard Keynes, his phrase animal spirits, which has to do with human emotion and the way it interacts with the economy.

GREENE: And we've got an animal and a spirit on here. Now I get the visual pun.

BLUMBERG: There you go.

DAVIDSON: And, David, it's very important that we emphasize we are not, as Planet Money or at NPR, taking a stand on the central economic debate of our time...

GREENE: Mm-hmm.

DAVIDSON: ...basically, John Maynard Keynes versus the Chicago school and the Austrian school. We are not taking a position on that. We simply thought it would be funny to have a T-shirt with a squirrel and a martini glass.

GREENE: You're having a little fun with the T-shirt.

DAVIDSON: Exactly.

GREENE: OK. So, you figure out the design of the T-shirt that you want to make. What comes next here?

DAVIDSON: So once we know what the T-shirt is, then we need customers. And we decided to do it in a very modern way, to figure out who our customers are before we make the shirt.

BLUMBERG: And to that, we had a Kickstarter campaign. Kickstarter is this crowdfunding platform.

GREENE: Uh-huh. Small businesses do that.

BLUMBERG: Yeah, exactly. And we talked to our podcast listeners and our Twitter followers and we said, hey, we're making this T-shirt and here's what it's going to be like. If you want one, go on Kickstarter and pledge 25 bucks. And we figured, you know, we'll raise maybe $50,000 that way. We'll make enough for, like, maybe 5,000 T-shirts. In the end, people pledged over $590,000.

GREENE: Wow.

BLUMBERG: And we're making 25,000 T-shirts.

GREENE: OK. So, what are we going to be hearing about in the coming days and weeks?

BLUMBERG: You're going to be hearing about the world that is behind this T-shirt, and almost every single piece of clothing that you were on your bodies.

DAVIDSON: Just to give you one preview, when we sent our team of Caitlin Kenney and Zoe Chace to Bangladesh, we really wanted an answer to the question: Is it good or bad for Bangladesh that they make T-shirts there? And the complexity of the answers - I mean, they have the beautiful story of two sisters who really show all the good and all the bad that this transformation of Bangladesh represents. And we saw that story again and again throughout the world, that there's not some simple answer to the question. It was as complex as human beings can be.

GREENE: All right. Adam Davidson and Alex Blumberg from our Planet Money team, thank you, guys.

DAVIDSON: Thank you, David.

BLUMBERG: Thank you.

MONTAGNE: And later on ALL THINGS CONSIDERED, our T-shirt began with a cotton picker in Mississippi. You can follow the T-shirt's journey on video at npr.org/shirt.

How Technology and Hefty Subsidies Make U.S. Cotton King

by Robert Smith December 02, 2013 4:42 PM

Radio Transcript

ROBERT SIEGEL, HOST: From NPR News, this is ALL THINGS CONSIDERED. I'm Robert Siegel.

I have before me right now a fairly ordinary-looking but, in fact, unique T-shirt. It's gray and on the front of it there's a picture of a squirrel holding a martini glass. But where the olive should be inside the drink there is, in fact, an acorn. What makes this 100

percent cotton T-shirt unique is that we know everything about how it was made.

Our Planet Money team commissioned the shirt. Then they followed the manufacturing process around the globe. It was touched by people in rich countries with advanced degrees and by people working for some of the lowest wages on Earth.

All this week, we're going to hear their stories and today we start with the raw material. NPR's Robert Smith went in search of the farmer who grew the cotton that Planet Money's shirt was made from. And it took some detective work.

ROBERT SMITH, BYLINE: Imagine going into a gas station where you've just filled up your car and asking the guy: Hey where did this gasoline come from? I mean where exactly was the well that produced the oil that got refined into this particular gas? That's what it was like when we asked people: Where is our cotton farm?

RANDY SCHELLING: Oh, gosh. That's a tough one to answer.

SMITH: That's Randy Schelling from the underwear company Jockey International. Jockey guided us on the technical side of this project. They introduced us to suppliers and factories that they work with. But even Randy didn't know where our cotton came from. Cotton in a T-shirt gets blended from farms across the globe.

SCHELLING: Anywhere from one farm to a hundred farms, potentially.

SMITH: But the folks at Jockey did recommend one place that might be able to tell us where our cotton came from, the place where our cotton takes its first step to becoming fabric. It's a spinning plant called Indorama and, by the way, it's in Indonesia.

Anil Tibrewal, the chief sales guy, meets us at the factory gate.

There's this amazing smell here.

ANIL TIBREWAL: It's the cotton smell. This is natural. If you go to the cotton fields, pick up a boll, smell it, it's almost similar like this.

SMITH: A little bit like the earth where it came from.

TIBREWAL: Yes.

SMITH: Anil leads us back through the warehouse and it's amazing. Cotton bales stacked three stories high. There's the Brazilian cotton, there are the Greek bales. There's an entire section from Australia. But Anil says, knowing your T-shirt, your

type of cotton is probably way in the back. My producer Jess Jiang spots it first.

JESS JIANG, BYLINE: Is this from Arkansas?

TIBREWAL: Memphis, this is Memphis.

JIANG: Oh, Memphis.

SMITH: This is Charlotte. Charlotte? This is all...

TIBREWAL: This one the same lot. We won't...

SMITH: Is this Charlotte all the way?

TIBREWAL: This whole lot of bales is American cotton.

SMITH: I spy: Marmaduke, Arkansas; Halls, Tennessee; Lyon, Mississippi. It's like a road trip through the Delta.

Now, on the face of it, this doesn't seem to make much economic sense. There are farms that are much closer to Indonesia, places where the land is cheap and the labor is cheaper. Why ship a bunch of raw cotton from the United States, the furthest place you can find? Why get it from someone like this guy?

BOWEN FLOWERS: My name is Bowen Flowers. We're standing on one of my farms we call Omega.

SMITH: Clarksdale, Mississippi, 10,000 miles from Indonesia. And as far as we can guess - we're estimating here - OK, we're going to call it: The birthplace of the Planet Money T-shirt.

On this fall day, the cotton looks like a snow drift all the way to the horizon. I actually brought back some of the T-shirt cotton from that warehouse in Indonesia and showed it to Bowen.

Can you identify it? Is that yours?

(LAUGHTER)

FLOWERS: Don't know but it looks like the same as all the cotton around this area. That's for sure.

SMITH: Bowen is a huge man, 6' 7. And as we wade into the field, the plants only come up to his belt buckle. He's going to send this crop around the world. Just like the Swiss make the best watches, the Germans perfected the sports car, Americans grow the most desired cotton in the world. And just like those watches and cars, American cotton does it by being high-tech.

This is the John Deere 7760; iconic green color, big as a houseboat. Bowen bought five of them last year. And they were not cheap.

FLOWERS: They're right at 600,000 a piece. So we got in a big investment. We got to make something to make the payments on them every year.

SMITH: You bought $3 million worth of equipment last year to pick cotton.

FLOWERS: It's crazy, isn't it? Real crazy. We might need to have our brain examined.

SMITH: But these machines give Bowen an edge over small farmers in the rest of the world. He can pick cotton faster with fewer workers. Bowen can watch the progress of the pickers from his iPad sitting at home. And as cushy as it is for him, the driver up on top of the John Deere has an even sweeter gig. Hey, we wanted to see if we could go a row with you.

I climb up a ladder up into picker number three to hitch a ride with Martovia Latrell Jones.

MARTOVIA LATRELL JONES: Oh.

SMITH: Hey, how's it going?

JONES: Good.

SMITH: Everyone calls him Toto. He puts the machine into gear.

Whoa.

And then he lets go.

You just took your hands off the wheel. You didn't even have to touch it.

JONES: Yeah. Pretty much, everything's driving itself.

SMITH: The picker feels the cotton plants. It makes all the adjustments itself. Toto just sits there, calls his wife on the cell phone, cranks up the blues station.

(SOUNDBITE OF MUSIC)

JONES: You all might not like my singing.

SMITH: Toto has a lot of time up here to sit and think. He was raised by his grandfather, George, who worked on a cotton farm before all this technology. Toto heard the stories.

JONES: Had to get down on their hands and knees and get some blisters and splinters in their fingernails and everything.

SMITH: You do realize that you probably harvest more in five minutes than he did all day long.

JONES: Ah, yeah. I can make a round and pick more than they picked in their whole lifetime.

SMITH: These machines are not only fast but, by the end of the process, the cotton they produce is clean. It's pure. It's untouched by human hands. And this is a big deal to the complicated factories around the world that make our T-shirt. In Indonesia, Anil Tibrewel told us that the many countries still handpick cotton. And those countries end up with a lot of trash in their cotton bales.

TIBREWAL: The contamination comes from human being - plastic bags, chips bags. If there are, say, 5,000 people picking cotton in the field, they can throw any kind of things and that comes with the cotton.

SMITH: One more thing about American cotton: It's not actually that much more expensive. And this is the final reason why America exports more cotton than anyone else in the world. According to a lot of people - well, according to our competitors especially - we cheat. We stack the deck. The richest government in the world is helping Bowen out.

PIETRA RIVOLI: Well, you've got the simplest things which are the subsidies. And this is cash into the grower's pocket. You know, everybody understands that.

SMITH: Pietra Rivoli is an economist at Georgetown University. She was a paid consultant on our project and she wrote the book

that inspired it, "The Travels of a T-shirt in the Global Economy."

Subsidies get complicated, but for the 4,000 acres of cotton that Bowen and his family farm, the operation could be expected to get more than $100,000 in direct payments from the government. But perhaps the bigger benefit that the government provides is protecting farmers like Bowen from risks.

RIVOLI: There are bad things that can happen: prices can fall, there can be too much rain, it can be too hot, it can be too cold. A lot of those risks are protected against by government programs, particularly insurance subsidies.

SMITH: So basically they give them cheap insurance.

RIVOLI: They give them cheap insurance.

SMITH: And to be fair, other countries also support their agricultural products in various ways. But no one does it as effectively as the United States. U.S. farmers have big farms. They buy big machines. They take big risks. And the government has a big safety net for them.

(SOUNDBITE OF BEEPING)

SMITH: Back up on top of the cotton picker, Toto can watch the harvest go by on a computer screen. All the green lights mean that everything is going perfectly. He and the other drivers are on track to harvest six million pounds of cotton this fall; enough cotton, in other words, from this one farm in Mississippi to make a T-shirt for every person in New York City.

JONES: I would like to just see that one day. Just, you know, see where all of it happens after it leaves the cotton gin.

SMITH: I told Toto about the next steps for our T-shirt, about the factories in Indonesia and Bangladesh and all the container ships in between. And I promised to send him one of our shirts, so that he can wear it and say...

JONES: I made that shirt.

(LAUGHTER)

SMITH: Robert Smith, NPR News.

SIEGEL: To see video of the cotton harvest at dawn and those giant cotton pickers at work, go to NPR.org/shirt.

And tomorrow on MORNING EDITION, follow the journey of that cotton for Planet Money's T-shirt. Next stop: Indonesia.

Planet Money Spins a Yarn and Makes a 'Perfect' T-Shirt

by Robert Smith December 03, 2013 4:00 AM

Radio Transcript

RENEE MONTAGNE, HOST:

NPR's Planet Money team has produced its own T-shirt, and they sent reporters around the world to follow each step in that process.

DAVID GREENE, HOST:

All this week on MORNING EDITION and ALL THINGS CONSIDERED, we're meeting the people who put the shirt together. Yesterday, we went to Mississippi, where the cotton was grown.

BOWEN FLOWERS: We're standing on one of my farms; we call Omega.

GREENE: And tomorrow on this program, we'll hear from Bangladesh, where the T-shirt was cut and sewn.

UNIDENTIFIED MAN: Planet Money. Wow.

ZOE CHACE, BYLINE: These are our T-shirts.

MONTAGNE: But in between the U.S. and Bangladesh, the Planet Money cotton makes a detour, thousands of miles out of the way to Indonesia. Robert Smith reports on how Indonesia grabbed the most secret and obscure part of the T-shirt process.

ROBERT SMITH, BYLINE: We chased our bales of Mississippi cotton through the streets of Jakarta, through gridlocked traffic, and out into the Indonesian countryside. Now, this is a place where rice fields have been turned into Honda plants and satellite farms. This is a busy, crowded place, until we walk into the doors of the Indorama factory. This building is as big as a football field, and there is seemingly nobody working here. It's just row after row of shiny, metal robots.

These are beautiful machines. They are, like, immaculate.

ANIL TEBREWAL: And very expensive.

SMITH: Very expensive. Anil Tebrewal is the chief salesman here, and he says these machines are his greatest sales tool, because this step in the T-shirt process requires perfection.

TEBREWAL: You should have perfect machines, and a perfect culture to produce perfect things.

SMITH: And let it be very clear: the perfect thing that Anneal is talking about is yarn. Indorama spins raw cotton into yarn. Now, whatever image you have in your head of yarn - your grandma knitting a sweater - no, no, forget it. Yarn, in the textile business, is the stuff you and I might casually call thread. Those tiny little lines, if you look at your T-shirt, that's yarn, and it's very complicated stuff. Jockey International guided us on the technical side of this project, and Randy Schelling from the company told us that they spent years developing the yarn that goes into the Planet Money T-shirt. It had to have just the right qualities.

RANDY SCHELLING: You have the twist, the amount of twist, the direction of the twist.

SMITH: They specify fiber content, something called tenacity.

SCHELLING: Newtons per text on the yarn. That's a relationship to the size of the yarn and amount of strength.

SMITH: So, that's if you tug on it, if it's going to break.

SCHELLING: Right.

SMITH: Randy says there are basically an infinite number of different yarns you can create. So I asked him about the Planet Money yarn. Can we have a copy of the spec sheet? Because we want to show our listeners exactly the kind of that's in their T-shirt.

SCHELLING: No, I don't believe so.

(LAUGHTER)

MARION SMITH: That's our special sauce.

SMITH: That was Randy's boss, Marion Smith, at the end there. And that's how big a deal yarn is: It is a trade secret. It's like the recipe for Coke, except so much softer against the skin. The reason for all this obsession and secrecy about yarn is that yarn has to be flawless. There's six miles of it in a T-shirt. And if they get the recipe wrong - they pick the wrong cotton or the incorrect twist, if it's not uniform - your T-shirt could be itchy. It could fit funny. It could fall apart - which is why at the Indorama factory, they use robots, lots and lots of expensive robots.

I watched a machine suck up the cotton and pull it into a long, thick ponytail - an infinite ponytail sailing above my head, in and out. And, suddenly, these machines make it very thin, spinning at 22,000 rotations per minute.

So, I'm actually touching the yarn coming - oh, it vibrates. It's like a violin string.

Yeah. It turns out, this is a huge no-no at the factory. Nobody touches the yarn. My producer, Jess Jiang, and I got a little lecture.

TEBREWAL: No. There is no touching here. Why should you touch the product by hand? You are destroying the product.

JESS JIANG, BYLINE: But what's destroying it? My hands are clean. I washed them.

TEBREWAL: No, your hands are not clean. Dirty hands are bound to touch it, and then - look at this - the yarn is destroyed.

SMITH: They've got to be careful. Indorama puts out enough yarn to make a T-shirt every second. That's enough yarn in a day to circle the globe 24 times. It took a lot to do that math. It is an efficient plant, but it still does not explain the basic question about the Planet Money T-shirt, which is: Why does all of this happen in Indonesia? Why not in Bangladesh, where they actually use the yarn? Or why not in the United States, where the cotton is grown? Because, I learned, Indonesia is in a sort of sweet spot right now in the middle of the global T-shirt trade.

(LAUGHTER)

ANUPAM AHGRAHWALL: I think Indonesia is lucky to be in the middle of the process, but...

SMITH: Wait - luck? You think it's really luck?

AHGRAHWALL: Partly, partly.

SMITH: This is Anupam Ahgrahwall. He is the boss of all the spinning here at Indorama. And he explains Indonesia carved out a cozy little space between those advanced industrial countries and the developing ones. Places like the United States and Europe, they simply have to pay their workers more. Indorama can do it cheaper. Now, developing countries, like Bangladesh and Myanmar, they do have even lower wages than Indonesia, but those countries aren't ready to build a $35 million plant like this one. And they don't have a good supply of what robots need to survive.

AHGRAHWALL: Infrastructure, electricity.

SMITH: But staying in the sweet spot in a changing global economy is almost impossible. You know the drill: some poor country scrapes together the money to build one of these plants. Maybe they figure out how to keep the power on 24 hours a day. They have cheaper workers. Maybe they're closer to the cotton, or to the clothing factories. And all of a sudden, Indorama is undercut. Anyone who could produce this kind of high-quality yarn for a few pennies cheaper will win. And so that's why the folks at Indorama are so obsessed about that strand of cotton. That's how they stay in the T-shirt chain, even if no consumer will ever notice the time and effort they put into the Planet Money T-shirt.

AHGRAHWALL: When I see people picking up a T-shirt, and then just putting it back on the shelf in a store, I'm like, hey, man, we work very hard to make that yarn, which has made that T-shirt. Like, come on, give it some respect.

SMITH: Robert Smith, NPR News.

MONTAGNE: And later today on ALL THINGS CONSIDERED, Planet Money's Zoe Chace takes us into the home of a Bangladeshi woman who sewed the Planet Money shirt. You can follow the T-shirt's journey on video at NPR.org/Shirt.

Two Sisters, a Small Room and the World Behind a T-Shirt

by Caitlin Kenney and Zoe Chace December 02, 2013 8:01 AM

This is the story of how the garment industry is transforming life in Bangladesh, and the story of two sisters who made the Planet Money T-shirt.

Shumi and Minu work six days a week operating sewing machines at Deluxe Fashions Ltd. in Chittagong, Bangladesh. They each make about $80 a month.

To get to the small room that the sisters share with Minu's husband, you squeeze between two buildings, make your way along the wall, and spill out into a little neighborhood of boxlike rooms, all crammed on top of each other. Their room is upstairs, under a tin roof.

There's no running water in their room, and no kitchen. There's a TV, which Minu bought with the money she earned sewing clothes. There's also the box the TV came in, which takes up scarce shelf space in the small room. Minu was so proud of her purchase, she couldn't bear to throw the box away. "I feel too good when I think about it," she says, with a quick smile.

In the past decade, millions of Bangladeshis have started working in the garment industry. Many of them are like Shumi and Minu: They grew up in villages where conditions are even worse than they are for factory workers in the city.

When Shumi and Minu were growing up, sometimes there wasn't enough food to eat. They had three younger sisters who all died before they were 7. Now, Shumi and Minu are able to send money home. It isn't much, but it makes a big difference in the village.

"Now, we can eat whatever we want," their mother says. Their parents have built a new house, made of brick, to replace their old, bamboo house. And their younger brother can stay in school.

The rise of factory jobs in Bangladesh has brought profound cultural changes to the country as well. You can see the shift in just the few years that separate Minu and Shumi.

Minu, the older sister, is in her mid-20s. (The sisters aren't sure of their exact ages.) She's cynical and chews tobacco wrapped in betel leaf.

Minu has a 7-year-old daughter who lives back in the village with her grandparents. "I miss her," Minu says through a translator. "If she were here now, I'd be putting little clips in her hair." But there's nobody to watch Minu's daughter while Minu is at work here in the city.

Shumi, who is about 19, is Minu's opposite. Where Minu is reserved, Shumi is bubbly. Where Minu is serious, Shumi smiles. She loves her makeup and spends time doing her hair. It's hard for her to get through a story without laughing.

Minu's father married her off when she was a teenager, following the local tradition. An unmarried daughter "becomes a big burden," her father told us. "I have to spend money on their food and lodging."

Minu and her husband fight a lot. He goes through her phone and accuses her of cheating with the men she works with. She's a little scared of him. "I'm not capable to forgive my parents," Minu says. "They just destroyed my life."

By the time Shumi was a teenager, the rules of life in Bangladesh were changing. Rather than get married off, Shumi dropped out of school to go work with her sister in a factory.

Shumi's personal life is nothing like Minu's. Shumi has her own savings account. She has a boyfriend. Back in the village, her family would never let her talk to a boy who wasn't a relative. But here on her own, she takes rickshaw rides with her boyfriend. They hold hands; he tells her he loves her.

And, Shumi says, she won't consent to an arranged marriage like her sister's. "If I marry someone, then it should be my boyfriend," she says.

This is the world behind our T-shirt: three people in a small room dreaming of a better life. But for Minu and Shumi, this little room with the TV may be as far as they get. There aren't many jobs outside the garment industry, especially for women who dropped out of school.

Minu's dreams now are for her daughter. She's hopeful that her daughter can stay in school. She dreams that when her daughter grows up, there will be all kinds of jobs in Bangladesh. Maybe her daughter could work in an office, she says, or a bank — but not in a garment factory.

Next Stop Bangladesh As We Follow Planet Money's T-Shirt

by Caitlin Kenney and Zoe Chace December 04, 2013 4:00 AM

Radio Transcript

RENEE MONTAGNE, HOST:

Our Planet Money team is out with a t-shirt, and it's tracking each step of how that t-shirt was made. Yesterday, we went to Indonesia, where the yarn was spun for the fabric of the t-shirt. Today, Bangladesh, where it was put together. Bangladesh makes a lot of the world's clothing. If you bought underwear from

Target or, say, pants at JCPenney, they could have come from Bangladesh. And why has Bangladesh gotten so popular? Well, continuing on our t-shirt's trail, Planet Money's Caitlin Kenney and Zoe Chace have the answer.

ZOE CHACE, BYLINE: This is where it starts. Where are we?

JOHN MARTIN: New Jersey, right? I don't know which city, though. I know we're in Wal-Mart.

CHACE: That's right, the Wal-Mart in Secaucus, New Jersey. And why are you here?

MARTIN: Of course, to grab boxers, socks, t-shirts, whatever else catch my eyes. Save me from doing laundry, being too lazy.

CHACE: This is how cheap our clothes are, that John Martin would rather buy a new six-pack of t-shirts than wash the ones he currently owns.

CAITLIN KENNEY, BYLINE: What John Martin doesn't know - most people don't - is that there's a pretty equation that has to line up in order for us to get our clothes this cheap. Bangladesh is a big part of that equation.

(SOUNDBITE OF CRASHING)

KENNEY: So, these are the sleeves.

MOHIUDDIN CHOWDHURY: Yes, the sleeves, yeah. Sleeve hem.

KENNEY: Sleeve hems, yeah. I'm in the middle of a sewing floor on a busy factory on a busy street in Bangladesh. The room is big and bright and filled with women sewing clothes. Tables are piled high with boxer briefs for Tommy Hilfiger, Calvin Klein, and one assembly line in particular working on a very special t-shirt.

CHOWDHURY: Planet Money. Wow.

KENNEY: These are our t-shirts. Mohiuddin Chowdhury runs this company, Clifton Apparels, Ltd. They make t-shirts for Jockey, the underwear company that's helping us make our t-shirt.

(SOUNDBITE OF SEWING MACHINE)

KENNEY: It takes 32 people just to sew our shirt together - six on the sleeve, three on the neck. So many hands on just one shirt.

CHACE: We're economics reporters, so we really came over here to Bangladesh to find one thing: How much did it cost to make our shirt?

CHOWDHURY: It's about $2.

CHACE: The whole shirt.

CHOWDHURY: Whole shirt. One big shirt is $2.

KENNEY: Two dollars. That's the price that Jockey paid Clifton per shirt.

CHACE: We bought our shirts from Jockey. Jockey paid Clifton to make them.

KENNEY: And $2, that's an approximate price. Ashutosh Biswas, another manager here, he talks us through it.

CHACE: So, out of this $2, OK, what is the most expensive part?

ASHUTOSH BISWAS: Fabric.

CHACE: Fabric. How much?

BISWAS: Seventy-five percent of the commerce.

KENNEY: OK, people. Real slow - math on the radio. Here we go: The fabric to make the t-shirt is 75 percent of the price - so, about $1.50.

CHACE: In that $1.50 is the cost of cotton, the cost of turning that cotton into fabric. A dollar-50, so that leaves 50 cents. What's in the 50 cents?

KENNEY: Ashu says that's everything else: overhead, profit for Clifton. But mainly, it's people: managers, supervisors, and the many, many workers, all crammed into just 50 cents.

CHACE: Fifty cents seems so cheap for the workers' part of it.

KENNEY: That's so many people we just saw in that room, like, and 50 cents seems too small to cover all those people.

CHACE: Is this the cheapest place in the world to make a t-shirt - $2 a shirt?

BISWAS: Yeah. We can - yeah. Compared to the other countries.

CHACE: And there you have it, ladies and gentlemen, the cheapest place in the world to make a t-shirt. That's according to Jalal Chowdhury, who founded this company - which is another way of saying Bangladesh has the lowest-paid workers in the world for this kind of work.

KENNEY: A fact that is not lost on the workers in Bangladesh.

(SOUNDBITE OF BANGING)

KENNEY: Over the last few months, there have been violent protests in Bangladesh, workers demanding a higher minimum wage. And during the time we were there, the question of what the workers should be paid dominated the conversation.

CHACE: And that question was just answered. A new wage is set to take effect this month. The official minimum wage in Bangladesh will jump almost 75 percent from $39 a month to $68 a month - way less than the workers were asking for, and way more than the factory owners wanted to pay. Sirajul Islam Rony, he was on the wage board representing the workers.

SIRAJUL ISLAM RONY: (Through translator) We are not overly happy about it, but we are fine with it. With this rise, maybe their situation will improve a little bit, but not much. It won't be a really meaningful improvement.

RUBANA HUQ: It's going to be good for the workers. It's going to be a little tough for the owners, but I think we shall survive.

KENNEY: Rubana Huq runs a group of garment factories in Bangladesh making dress shirts and blazers. She says, you know, Bangladesh has done so well, in large part by being the cheapest place in the world to make clothes. Now Bangladesh is way closer to the garment-making world, and her biggest fear is that her customers will go somewhere else. In fact, she had a customer recently say, you know, you're as expensive as Cambodia right now.

HUQ: Do you know you're as expensive as Cambodia right now? So, I might as well get it from there.

KENNEY: This is a fear that factory owners and workers both share, that Western buyers will leave and take the jobs with them.

CHACE: One of those Western buyers - that's us, Planet Money - and Jockey, the t-shirt maker that we're working with. So we went to Jockey to ask if wages rise too much, will you guys leave?

KENNEY: What we found out is there's not a make-or-break figure that would make Jockey pull out of Bangladesh.

MARION SMITH: It depends on relevance to the rest of the world, to be honest with you.

KENNEY: This is Marion Smith, international sourcing guy at Jockey. And that answer - it depends relative to the rest of the world - it's sort of subtle, but essential for understanding how a company like his makes choices about where to operate. To illustrate, Marion Smith tells us one story. A couple of years ago, he says, the price of cotton spiked.

SMITH: When we had the cotton crisis, in particular, and when it zoomed up from, like, 70 cents a pound to 2.10.

CHACE: Now, think about that: The price of cotton just about tripled, and cotton is a much bigger portion of the total cost of a t-shirt than the labor is. If you're making cotton t-shirts and cotton goes up by that much, it's hard to not pass that cost on to the end customer.

SMITH: And we did, and our competition did. The real thing was who was going to do it first? Everybody ate it for a long time. It was who could hold out the longest.

CHACE: If there'd been a place to go to get cheaper cotton, they all would have gone there, but there wasn't. So the companies just paid more, and passed some of that cost on to us.

KENNEY: But for decades, labor has been different. There's always been a place you could get it cheaper. First, it was Japan, then it was Korea, China. Lately, it's been Bangladesh. But Marion Smith says we might be at the point where labor is becoming more like cotton. There's no place to get it cheaper.

SMITH: It's like Bangladesh is going to go up. And who's cheaper than Bangladesh?

CHACE: So you think we've hit sort of absolute zero, here. We've chased the cost as far as it goes, and it's going to start rising?

SMITH: Yeah, as a global economy, yes.

CHACE: So, our clothes are going to get more expensive. Our t-shirts are going to get more expensive.

SMITH: That will be my prediction.

CHACE: But because labor's part in that equation is so small, a rise in t-shirt prices could just be a few cents - perhaps not even enough to make us do our own laundry. I'm Zoe Chace.

KENNEY: I'm Caitlin Kenney, NPR News.

(SOUNDBITE OF MUSIC)

MONTAGNE: Later today on ALL THINGS CONSIDERED, our t-shirt series goes to Colombia, where wages are much higher than in Bangladesh. That has consequences for workers there. Visit NPR.org/shirt for lots more t-shirt reporting. This is NPR News.

Meet the Humble Container that Moves the Global Economy

by David Kastenbaum / December 05, 2013 4:37 PM

Radio Transcript

ROBERT SIEGEL, HOST:

From NPR News, this is ALL THINGS CONSIDERED. I'm Robert Siegel.

MELISSA BLOCK, HOST:

And I'm Melissa Block.

Our Planet Money commissioned a T-shirt and all this week they've been reporting on the global economic machine that made it, and it is a global machine. The men's T-shirts traveled half way around the world and back. Cotton grown in Mississippi was sent to Indonesia to be spun into yarn. The yarn went to Bangladesh where it was made into shirts. Those shirts then traveled back to the U.S., 20,000 miles, for a humble T-shirt.

David Kestenbaum caught up with the Planet Money's women's T-shirts where they were made in Colombia. And he has the story of the often ignored innovation that made all this traveling possible.

DAVID KESTENBAUM, BYLINE: This innovation, you can see it at any port. Actually it's about all you see.

(SOUNDBITE OF BEEPING)

KESTENBAUM: It's like you're in a maze of containers.

UNIDENTIFIED MAN #1: (Foreign language spoken)

KESTENBAUM: Shipping containers, you've seen them even if you don't know it. That truck next to you on the road, sometimes the back of it, the back of that truck, it is a container that not long ago had been on a ship, and before that maybe on the other side of the world.

One of the advantages of containers is that they're pretty much identical. That is not an advantage though if you're trying to find a particular one, as I was at this port in Cartagena, Colombia.

UNIDENTIFIED MAN #2: (Foreign language spoken)

KESTENBAUM: Out T-shirts were scheduled to be loaded by crane onto a ship bound for Miami. I knew the shirts were in a blue shipping container with a number on it which, frankly, was not a lot of help.

Fortunately my colleague Marianne McCune, who had watched the T-shirts get packed, helpfully wrote the words Planet Money on our container using what she had with her, in lipstick.

Oh, there it is. Yeah, M-O-N, that's it. It's still there.

(LAUGHTER)

KESTENBAUM: Marianne McCune, your lipstick held up.

The world of containers is not a human sized world. You can fit 80,000 T-shirts in one of these containers. And the ship in port here can carry 700 containers; meaning, if this were a pure T-shirt ship that would be over 50 million T-shirts on one giant ship.

Big metal boxes might not seem like an innovation, but you could argue our T-shirts would not be made where they were, all over the world; the global economy would not be as global without the humble container. To understand why, consider how things were done before.

Before containers in the 1950s, a ship might have to get loaded with 200,000 different items: bananas, fish meal, steel pipes, random stuff in sacks and boxes, all packed tightly together often by hand.

ANTONIO SALCIDO: My name is Antonio Salcido. I am 84 years old. I worked as a longshoreman; hole-work, dock work, jitney, driving a forklift.

KESTENBAUM: Salcido's first day on the job was in 1949 at the Port of Los Angeles. As it happens, he was loading cotton. Who knows? Maybe destined to be a T-shirt. A single bale of cotton weighs 500 pounds. But you could move one if you were good, he says. Bales were basically round, except for one flat section. So you'd get this big, 500 pound thing rolling.

SALCIDO: You go flat round, flat round, so whenever it goes flat you really put an extra bit of pressure to get it to the round side. It's very difficult.

KESTENBAUM: It's easy to romanticize these days of hard-working men, laboring side by side. But that romantic vision would leave out cattle hides, Salcido's least favorite cargo.

SALCIDO: They were slimy, often had maggots and they were stinky as hell. I mean it was just horrible. I've never smelled anything like hide.

KESTENBAUM: It was also a dangerous job. Salcido says he saw one man get crushed loading steel pipes. On days like that everyone would stop work and go home.

And even with 50 or 100 people working, it could take weeks to unload and reload a single ship.

Marc Levinson wrote a history of the container called "The Box." He says the guy who led the move to containers had no experience with ships at all. His name was Malcolm McLean. McLean owned a trucking company and he was thinking about a different problem entirely. His problem? It was taking a long time for his trucks to go up and down the East Coast. This was the 1950s, the interstates hadn't been built yet.

MARC LEVINSON: He originally had the idea that maybe if he could buy a ship, he could put the trucks on the ship in New York, sail the ship down the coast to North Carolina and offload the trucks there. And he would avoid the traffic.

KESTENBAUM: It was a way to avoid traffic.

LEVINSON: It was a way to avoid traffic.

(LAUGHTER)

KESTENBAUM: McLean gave up on the idea of driving trucks onto ships. A truck after all is just an engine attached to a box. So why not just make the box detachable?

Antonio Salcido, the longshoreman, remembers seeing his first container and it did not make him happy. Companies were realizing they could save a lot of money with containers. In part, because they didn't require so many workers like him.

SALCIDO: I think the majority of the longshoremen down there just saw it as loss of jobs.

KESTENBAUM: But what about the idea that it was a cheaper way to do it and that it would save all this labor? You know, all your hard labor.

SALCIDO: Well, of course, you know, that never entered my mind exactly that, you know, it was cheaper way to ship goods. Because, you know, we were more concerned with our own livelihood and putting food on the table.

KESTENBAUM: The unions and shipping companies fought over this for years. The details could fill a book. But in the end, the shipping companies eventually agreed to pay into funds that would compensate the workers.

Containers became standardized around the world. And by 1966, Malcolm Mclean - the guy who dreamed of putting trucks on boats to avoid traffic - had put together an impressive fleet of container ships. His company SeaLand even started making container ship runs all the way to Europe. One of the first cargos to come back in those containers was whiskey. Whiskey used to have a way of disappearing off ships. But when locked in an anonymous container, that wasn't a problem.

The age of containers had begun and it greatly reduced the cost of shipping. Whole distribution systems were set up around these big boxes that could be easily moved from ships to trains to trucks.

Again, Marc Levinson.

LEVINSON: Modern globalization couldn't have happened without the container. If you had to be loading every little bag and barrel and box separately onto vessel, if you had a vessel spending two weeks in port every time it had a port call and 200,000 items being loaded off, 200,000 more being loaded back on, it would be impossible to have trade on scale that we have today. It's containerization that made that possible.

(SOUNDBITE OF BEEPING)

KESTENBAUM: On an early Tuesday morning, at the port in Cartagena Colombia, I watched our T-shirt container get loaded onto the ship. A giant crane, operated by a man far overhead who I could barely see, picked it up. A minute later it was on board.

There it is, our container, with the words Planet Money T-shirts written on the end in lipstick. Going below deck of Hansa Kirkines, a giant container ship bound for Miami.

The cost of getting our T-shirts all the way home, by ship and train and truck? It barely shows up, pennies per shirt.

David Kestenbaum, NPR News.

'Our Industry Follows Poverty': Success Threatens a T-Shirt Business

by Marianne McCune / December 02, 2013 8:02 AM

The Planet Money men's T-shirt was made in Bangladesh, by workers who make about $3 a day, with overtime. The Planet Money women's T-shirt was made in Colombia, by workers who make roughly $13 a day, without overtime.

The wages in both places are remarkably low by U.S. standards. But the gap between them is huge. Workers in Colombia make more than four times what their counterparts make in Bangladesh. In our reporting, we saw that the workers in Colombia have a much higher standard of living than the workers in Bangladesh.

Noreli Morales, a Colombian worker who helped make our women's T-shirt, lives with her mom and her daughter in an apartment that has a kitchen and a bathroom. Shumi and Minu, Bangladeshi sisters who worked on our men's T-shirt, share a single room with Minu's husband. There's no running water, no kitchen. Noreli sends her daughter to day care; Minu can't afford day care, so her daughter lives back in the village, with her parents.

The workers in both places are doing essentially the same thing: sewing T-shirts together. So why the big difference in their wages?

With a long tradition of apparel manufacturing and better technology, the Colombians can make T-shirts much, much faster than the Bangladeshis can. In Bangladesh, on one sewing line for our T-shirt, 32 people can make about 80 shirts per hour. One sewing line in Colombia has eight people and can make about 140 T-shirts per hour. The two lines aren't perfectly parallel — the Bangladeshi workers are completing a few more details of the shirt than the Colombians are. But the difference is striking nevertheless.

It's not just the sewing machine operators who are more efficient in Colombia. The cotton for the men's shirt was spun into yarn in Indonesia, then shipped to Bangladesh to be knit, cut and sewn. Crystal, the Colombian company that made the women's shirts, does everything — from spinning the cotton into yarn to knitting the yarn into cloth to stitching sleeves on a shirt. That makes the process much faster and easier for Jockey, the company that coordinated the production of our T-shirt.

Colombia's economy has been growing like crazy for the past decade, and wages have been rising. That's good for the country as a whole, but it may wind up driving away the T-shirt industry.

"There is a saying that is going to sound horrible," Crystal's CEO, Luis Restrepo, told me. "Our industry follows poverty." It's an industry "on roller skates," he said, rolling from Latin America to China, to Bangladesh — wherever costs are lowest.

No matter how good Crystal is, Restrepo said, the breakup call from a big client can come at any moment.

"You are one phone call away," he told me.

When I visited the factory in Colombia, there was a rumor going around that Jockey, one of Crystal's most important clients, was going to cut its ties with the company. People were really worried. "Who are they gonna let go first?" a worker named Lina Maria Tascón said. "The people who worked on Jockey, of course."

When I got back to the U.S., I asked Marion Smith, a senior vice president at Jockey, about the rumors. He said they're true: He decided to put a stop to orders from Crystal. "We both like each other a lot," Smith said. "They've got great principles, they have great capabilities." The companies are trying to negotiate some new kind of deal, he said.

But the growth of Colombia's economy means it's getting expensive to make simple products like T-shirts there. "Wages continue to go up, costs continue to go up," Smith said. Jockey plans to move production to several other countries, where its cost per shirt will be 20 to 30 percent lower, according to Smith.

The loss of Jockey will be a blow to Crystal. But as Colombia's economy has grown, Crystal has been transforming itself from a manufacturer of low-end clothes into a company that sells higher-end clothes under its own brands. The company has already opened 160 of its own stores across Latin America, and has plans for more.

"We decided we want to control our own destiny," Restrepo said.

The Afterlife of American Clothes

by and Gregory Warner and David Kestenbaum / December 02, 2013 8:08 AM

Jeff Steinberg had a maroon and white lacrosse jersey that he wore for years. It said "Denver Lacrosse" on the front and had his number, 5, on the back.

Then, one day, he cleaned out his closet and took the shirt to a Goodwill store in Miami. He figured that was the end of it. But some months after that, Steinberg found himself in Sierra Leone for work. He was walking down the street, and he saw a guy selling ice cream and cold drinks, wearing a Denver Lacrosse jersey.

"I thought, 'Wow, this is pretty crazy,' " Steinberg says. Then he looked at the back of the shirt — and saw the number 5. His number.

Steinberg tried to talk to the guy about the shirt, but he didn't speak much English and they couldn't really communicate.

"I spent a lot of time thinking about that over the following days," Steinberg says. "It was just beyond me how it could have gotten there."

It turns out the epic voyage of Steinberg's jersey — from a used clothes bin in the U.S. to sub-Saharan Africa — is actually really common. Lots of U.S. shirts (including, it seems safe to say, lots of Planet Money T-shirts) will eventually make the trip.

Charities like Goodwill sell or give away some of the used clothes they get. But a lot of the clothes get sold, packed in bales and sent across the ocean in a container ship. The U.S. exports over a billion pounds of used clothing every year — and much of that winds up in used clothing markets in sub-Saharan Africa.

We recently visited the giant Gikombo Market in central Nairobi. There's a whole section for denim, and another for bras. We, of course, headed for the street of T-shirts, where vendors lay out their wares on horse carts. The shirts have been washed, ironed and carefully folded. It's more like Gap than Goodwill — if Gap had a very strange product line.

Just to pick at random from one cart: There's a fundraising T-shirt for a cancer charity, a shirt from a weightlifting competition in southern Montana and a shirt marking "Jennifer's Bat Mitzvah" in November 1993.

Margaret Wanjiku, a T-shirt vendor from western Kenya, has come to this market to restock her supply. What's written on the T-shirt is often not that important to her customers, she says. She's looking more at the condition of the shirt — the "smartness."

Like many vendors here, Wanjiku stays away from shirts that are extra-large, because those are too big for almost all of her customers. But there is at least one guy in Nairobi looking for extra-large shirts.

Francis Mungai cuts up XL shirts with scissors and, working with a seamstress, turns them into slimmer, smaller shirts.

One recent day he bought an extra-large Motorhead shirt and, in a few minutes, turned it into a slim, custom shirt with a blue collar and canary-yellow sleeves. The Motorhead shirt was imported to Kenya for 15 cents. It was resold and sold again for 45 cents. Then someone got 12 cents to cut it up, 18 cents to tailor it and 14 cents to wash and iron the shirt. Then a vendor bought it for $1.20, with plans to sell it for $2 to $3.
