

Silent Killer

THE UNFINISHED CAMPAIGN AGAINST HUNGER

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SILENT KILLER SCRIPT

OPENING TEASE—short bites, mix of footage, mix of people eating and others looking obviously hungry

PINSTRUP-ANDERSEN: We have a silent killer and it's called hunger...

BECKMANN: World hunger is the Holocaust of our time. It is just absolutely a scandal that there are so many hungry people in our world.

M'MBIJJEWE: For people to die of hunger, it's just abominable. It's wrong...Everyone needs to focus their attention on how to solve this problem.

IT IS THE OLDEST OF PROBLEMS...AND THE MOST PERSISTANT.

EVEN NOW, MILLIONS OF HUMAN BEINGS DIE EACH YEAR FOR LACK OF FOOD.

IT DOESN'T HAVE TO BE THAT WAY. IN LITTLE WAYS, AND BIG, WE ARE LEARNING WHAT IT TAKES TO FEED EVERYONE.

WHAT IS MISSING IS THE COMMITMENT TO DO IT.

BARRETT: Hunger is a perpetual state until you give people the means to take care of themselves. Very simple.

music

TITLE:

**SILENT KILLER:
THE UNFINISHED CAMPAIGN AGAINST HUNGER**

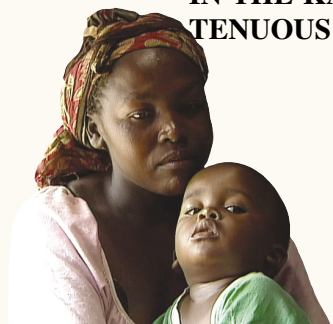
Wind, animals, sounds of birds, etc.

SOUTH AFRICA'S KALAHARI DESERT... WHERE RAIN IS A STRANGER AND A HUNDRED DEGREES IS AN ORDINARY OCCASION.

IN THE KALAHARI TRANS-FRONTIER PARK, ANIMALS STAY CLOSE TO MEAGER AND TENUOUS SOURCES OF MOISTURE...

"WE HAVE THE MEANS, WE HAVE THE CAPACITY TO ELIMINATE HUNGER FROM THE FACE OF THE EARTH IN OUR LIFETIME. WE NEED ONLY THE WILL."

- JOHN F. KENNEDY



WILDEBEESTS...

SPRINGBOKS...

GEMSBOKS...

THIS IS THE ANCESTRAL HOME OF THE KHOMANI SAN PEOPLE, MORE COMMONLY KNOWN AS BUSHMEN.

Lizard, then Vet Piet Kleinman coming over the horizon

FOR MILLENIA, THE BUSHMEN HAVE BEEN HUNTER-GATHERERS, PASSING ON AGE OLD TRACKING SKILLS.

VET PIET KLEINMAN CAN TELL FROM PRINTS IN THE SAND PRECISELY WHEN AN ANIMAL PASSED BY AND WHERE IT WENT.

AS A BOY, HE WALKED THE DESERT WITH HIS GRANDFATHER, IN SEARCH OF GAME.

KLEINMAN: There were times when the animals migrated far away and we had to go very far into the backcountry to find something...

THEY MIGHT HAVE BEEN OVERCOME BY HUNGER AND THIRST, BUT FOR A REMARKABLE, CACTUS-LIKE PLANT.

KLEINMAN: As far back as I can remember it's been part of our tradition. It's very healthy to use the Hoodia...

Looking for the Hoodia

HIS PEOPLE HAVE ALWAYS UNDERSTOOD THE SPECIAL TRAITS OF THE HOODIA.

LIKE OTHER SUCCULENTS, IT STORES WATER IN ITS PRICKLY ARMS.

BUT THE KHOMANI ALSO KNOW THAT CHEWING THE BITTER HOODIA TAKES AWAY THE PANGS OF HUNGER.

JUST A SMALL BITE CAN KILL YOUR APPETITE FOR A DAY.

NOW, THE LITTLE-KNOWN HOODIA IS ON THE VERGE OF FAME.

ITS APPETITE-SUPPRESSANT PROPERTIES HAVE BEEN PATENTED.

PHYTOPHARM, A BRITISH DRUG FIRM, IS NOW DEVELOPING HOODIA PLANTATIONS. THE COMPANY PLANS TO MASS MARKET A DIET PRODUCT CONTAINING HOODIA.

The settlement

DECADES AGO, THE KHOMANI SAN WERE FORCIBLY REMOVED FROM THEIR HOMES IN THE TRANS-FRONTIER PARK.

SEPARATED FROM THE GAME ANIMALS THEY ONCE HUNTED, THEY NOW LIVE IN THIS POVERTY-STRICKEN SETTLEMENT OF DECAYING EUROPEAN STYLE HOUSES

AND TRADITIONAL STRAW HOMES.

IT'S A HARD LIFE, WITH CONSTANT THREATS—HUNGER, UNEMPLOYMENT, ALCOHOLISM, AIDS, EVEN SCORPIONS AND SNAKES, LIKE THIS SMALL BUT DEADLY SIDE-WINDER ADDER.

DAWID KRUIPER: The bushman is like a jackal. He has nothing to eat. He has to depend on what is left over for him. ...I don't want to live like a millionaire. I want to live in our natural way, like that weaver bird there. When his nest falls down or is burnt out by lightning, it's easy for him to collect grass and rebuild his nest.

Khomani Trance Dance

THE IRONY IS ENORMOUS. INDIGENOUS KNOWLEDGE, USED BY RAZOR-THIN BUSHMEN TO FEND OFF HUNGER WHEN THEY HAVE NOTHING TO EAT, WILL BE SOLD TO KEEP OBESE AMERICANS AND EUROPEANS FROM EATING TOO MUCH.

WHEN THE DIET PRODUCT DERIVED FROM HOODIA ENTERS THE MARKET, IT WILL SERVE AS A POWERFUL METAPHOR FOR A DIVIDED WORLD...A WORLD WHERE SOME DIE FROM TOO MUCH FOOD, AND MILLIONS MORE...FROM TOO LITTLE.

Black and white shots of hungry people

TIME AND AGAIN, WE'VE SEEN THE TERRIBLE PICTURES... FAMINE AND MASSIVE LOSS OF LIFE... HUNGER TURNED SUDDENLY TO STARVATION BY SEVERE WEATHER, WARS OR POLITICAL CRISES.

THIS IS THE HUNGER WE USUALLY HEAR ABOUT—THE DEATHS THAT TIMELY SHIPMENTS OF GRAIN CAN HELP AVERT.

BUT MOST OF THE WORLD'S HUNGER IS DIFFERENT...CHRONIC... INVISIBLE... QUIETLY SAPPING ENERGY AND LIVES WITHOUT NOTICE...

Montage of Kenya beauty shots--music

KENYA...EAST AFRICA...

A LAND OF STUNNING BEAUTY STRADDLING THE EQUATOR...

CARPETS OF TEA IN THE TROPICAL SUN...

OPEN AIR MARKETS, BURSTING WITH FOOD.

Dissolve to Jane Ininda

BUT JANE ININDA KNOWS THE BEAUTY HERE IS ONLY SKIN-DEEP.

ININDA: There were many times when I was small and we really did not have food...there was really no money to purchase anything.

Jane at KARI

DR. ININDA IS A MAIZE BREEDER, WORKING TO INCREASE PRODUCTION OF KENYA'S MOST IMPORTANT STAPLE.

SHE BELIEVES THE LIVES OF HER PEOPLE CAN BE TRANSFORMED BY DEVELOPING HARDIER AND MORE PRODUCTIVE CROPS.

ININDA: It has such an impact. Because there is no way you can even go to school on a hungry stomach. You really need the food.

LITTLE IN JANE'S BACKGROUND WOULD HAVE PREDICTED HER CAREER AS A SCIENTIST.

ININDA: I used to hate agriculture because the only agriculture I knew was to dig a hole and plant.

Primary school teacher: You see this. Is it North, South or East, tell me...

BORN TO A POOR FAMILY, JANE ATTENDED PRIMARY SCHOOL HERE, IN THE SMALL HAMLET OF KANGETA, ABOUT TWO HOURS NORTH OF NAIROBI.

IN THOSE DAYS, FEW CHILDREN WENT TO SCHOOL.

JANE'S PARENTS, LIKE MOST RURAL KENYANS, WERE NEVER FORMALLY EDUCATED.

Jane showing her house

THIS IS THE HOUSE WHERE JANE GREW UP.

ININDA: This is the area where we used to sleep when we were small

HER WHOLE FAMILY SLEPT IN A SINGLE ROOM.

THOUGH NEARLY DESTITUTE, JANE'S PARENTS SACRIFICED FOOD AND SHOES, TO SAVE MONEY SO SHE COULD CONTINUE IN SCHOOL.

Kangeta Market

EVENTUALLY, JANE WAS ABLE TO ATTEND COLLEGE IN THE UNITED STATES.

SHE COULD HAVE STAYED THERE AND FOUND A JOB WITH EXCELLENT PAY AND BENEFITS.

BUT SHE COULD NOT FORGET THE SUFFERING IN HER HOMELAND.

SO AFTER EARNING HER DOCTORATE, JANE RETURNED TO KENYA, TO HELP IN THE FIGHT AGAINST HUNGER.

ININDA: I think things can improve. What we need here is a closer contact between the experts in agriculture and the farmers. The farmers are willing to learn. Every time they see me they want to ask me about how they can solve a certain problem in agriculture.

Family preparing the meal, welcoming Jane

IT'S ALWAYS A SPECIAL OCCASION WHEN JANE VISITS HER FAMILY HOME, ON A DRY PLATEAU SOUTH OF MT. KENYA.

Cooking montage

TODAY, THERE IS ENOUGH OF THE FILLING CORN MEAL PORRIDGE KENYANS CALL UGALI.

ININDA: This time we had a lot of rain in Kenya, all over the country. But it is not always like that. Usually you can only expect to get a crop in this area almost less than three in five seasons, meaning that almost half of the time you have crop failure.

JANE'S BROTHER, SALESIO MUGO, AND HIS FAMILY, STILL RAISE BEANS AND MAIZE--OR CORN, AS WE CALL IT--ON PART OF THE FAMILY FARM--ALONG WITH MORE DROUGHT-TOLERANT CROPS LIKE MILLET AND COWPEAS.

THAT'S IMPORTANT, BECAUSE FOR MUCH OF THE YEAR, THERE IS NO WATER HERE.

NOW, THOUGH, THE FAMILY STILL FINDS SOME, IN A WELL ONLY A FEW HUNDRED YARDS FROM SALESIO'S HOME.

THEY CANNOT DRINK THIS WATER WITHOUT BOILING IT.

AND SOON, THE WELL WILL BE DRY.

THEN THEY MUST TRAVEL SEVERAL MILES BY HORSECART TO THE ONLY RIVER IN THE AREA.

MUGO: People starve. Very many people die because of even traveling long distances, because of looking for water and even looking for food.

OFTEN, SALESIO'S CROPS WITHER FOR LACK OF RAIN.

ININDA: These days when I visit home or I come home, I just find like most of the time they don't have any crop. It is getting drier.

THEN, THERE ARE THE PESTS AND DISEASES THAT ATTACK THE MAIZE. THE MOST DESTRUCTIVE IS AN INSECT CALLED A STEMBORER.

SOMETIMES, KENYAN FARMERS HAVE LOST THEIR ENTIRE CROP TO SUCH PESTS.

JANE ININDA WALKS THROUGH HER BROTHER'S FIELDS, LOOKING FOR DISEASE IN HIS CORN.

IT ISN'T HARD TO FIND.

THE DISEASE, CALLED MAIZE STREAK VIRUS, IS ONE OF MANY THAT CAN GREATLY REDUCE SALESIO'S YIELD.

AND EVEN IF THE CROP DOES SURVIVE FARMERS MUST BE CONSTANTLY VIGILANT TO PROTECT IT FROM BEING EATEN BY ANIMALS. JANE'S FATHER SLEPT IN HIS FIELDS TO GUARD THEM.

ININDA: You just have to guard your farm. If you don't guard your farm you are going to lose all the crops and then your family will not have food. And this has to be done during the night and during the day

Embu town shots

WHEN THERE ARE NO CROPS, JANE'S BROTHER MUST TRY TO FIND WORK HERE, IN THE TOWN OF EMBU, HOURS AWAY BY BICYCLE.

OFTEN, HE RETURNS EMPTY HANDED.

EACH YEAR, HIS FAMILY EXPERIENCES TIMES WITHOUT FOOD.

THEN IT IS HARD FOR SALESIO AND HIS CHILDREN TO FIND ENERGY FOR WORK OR SCHOOL. SO THEY REMAIN MIRED IN POVERTY.

IT IS A VICIOUS CYCLE, BUT A VERY COMMON ONE THROUGHOUT THE DEVELOPING WORLD.

FALCON: There are, in round numbers, a billion people, roughly a sixth of the world, that by any standard, any measure are poor and undernourished...The global statistics don't quite capture the human drama that goes on in these areas...One really has to walk in the countryside to appreciate what's going on.

PINSTRUP-ANDERSEN: Every third pre-school child is malnourished. She does not grow to her full potential. If she survives, she will grow up to be a stunted individual.

BARRETT: Hunger is the single biggest cause of health problems in the world... Children who don't get enough iodine suffer brain damage that's irreversible. Children who don't get enough vitamin A go blind. Again, it's irreversible.

BECKMANN: They're very vulnerable to disease so they may be sickly. They're likely to have parasites in their stomach, so it means that even when they do eat food the food doesn't really nourish them properly...

BARRETT: And as a consequence, they're poor for the rest of their lives. They can't concentrate in school, they don't have the energy to work hard. And you have essentially condemned them to a life in which they can't ever really make ends meet.

IF THEY SURVIVE AT ALL.

IN FACT, SIX MILLION CHILDREN DIE EACH YEAR FROM HUNGER AND HUNGER-RELATED DISEASES.

BECKMANN: Every time you take a breath, a child is dying in a poor country.

BY THIS TIME TOMORROW, 15,000 MORE HUNGRY CHILDREN WILL HAVE DIED.

IMAGINE A LIST OF VICTIMS FIVE TIMES AS LONG AS THAT LEFT BY THE WORLD TRADE CENTER ATTACKS.

EVERY SINGLE DAY.

BECKMANN: At a hundred years from now people are going to be wondering how did we stand by and let this go on day after day?

Protestors in Rome

JUNE, 2002. THOUSANDS OF PROTESTORS MARCH PAST THE MAJESTIC MONUMENTS OF ROME.

Music, chanting

REPRESENTING FARMERS FROM POOR COUNTRIES AND SYMPATHETIC ORGANIZATIONS FROM RICH ONES, THEY DEMAND ACTION AGAINST HUNGER.

Delegates entering FAO meeting

THEY HOPE TO INFLUENCE DELEGATES TO THE WORLD FOOD SUMMIT, HOSTED BY FAO, THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS.

FAO LEADERS SAY THEY WANT TO CUT WORLD HUNGER IN HALF BY 2015.

FALCON: When agriculture comes up in the discussions of the rich countries, it's usually in the context of what are we going to do with the surpluses, not how are we going to alleviate food security in poor countries.

PINSTRUP-ANDERSEN: It is not a high priority for policy makers in developed or industrialized countries because their children are not hungry, their children do not starve.

STILL, FAO DELEGATES VOTED NEARLY UNANIMOUSLY TO ESTABLISH A LEGAL RIGHT TO FOOD FOR ALL THE WORLD'S PEOPLE.

ONLY THE UNITED STATES OPPOSED THE RESOLUTION ON THE GROUNDS THAT FEEDING EVERYONE SHOULD BE A GOAL OF GOVERNMENTS BUT NOT A LEGAL OBLIGATION.

BECKMANN: The US is the least generous nation when our development assistance is measured against our national income. That really is a scandal and it's contrary to American values.

KENNEDY: For the first time in the history of the world, we do know how to produce enough food now to feed every man, woman and child in the world. Enough to eliminate all hunger completely.

IN 1963, PRESIDENT KENNEDY CALLED FOR A WORLD COMMITMENT TO END HUNGER.

KENNEDY: But this means that agricultural departments and ministries and governments and citizens must make a greater and more systematic effort to share this knowledge. For the first time to know how to conquer the problem and not to conquer it, would be a disgrace for this generation.

IT WAS A TIME WHEN MANY SCIENTISTS WERE WARNING THAT WITHIN A DECADE, WORLD POPULATION GROWTH WOULD OVERWHELM FOOD SUPPLIES.

PINSTRUP-ANDERSEN: Virtually everybody predicted mass starvation and death in Asia.

THEY HADN'T COUNTED ON THE GREEN REVOLUTION, AN EMERGENCY PROGRAM TO INCREASE FOOD PRODUCTION IN POOR COUNTRIES.

PINSTRUP-ANDERSEN: The Green Revolution was the most effective and most successful development effort the world has ever seen.

WELCOME TO CIMMYT, THE INTERNATIONAL CORN AND WHEAT IMPROVEMENT CENTER, NEAR MEXICO CITY.

IT'S ONE OF ABOUT A DOZEN CROP BREEDING CENTERS, LOCATED IN DEVELOPING COUNTRIES AROUND THE WORLD.

NEARLY FORTY YEARS AGO, SCIENTISTS AT THESE GREEN REVOLUTION CENTERS BEGAN DEVELOPING HIGHER-YIELDING GRAINS AND PROVIDING THEM FREELY TO FARMERS AROUND THE WORLD.

THEY ALSO ENCOURAGED FARMERS TO USE MORE FERTILIZERS AND FARM CHEMICALS.

IN MANY COUNTRIES, FOOD PRODUCTION MORE THAN DOUBLED.

THE PREDICTED FAMINES WERE AVERTED, LARGELY BECAUSE OF THE GREEN REVOLUTION.

PINSTRUP-ANDERSEN: It has fed millions and millions of Asians, of Latin Americans, and some, but not as many, Africans. It was a tremendous success... And, yes there were problems associated with the Green Revolution. Many countries used too much pesticides. It had negative health effects on people... Too much water was being used in certain parts of Asia, causing water logging and salination, resulting in decreased productivity of the land in Asia, so there were negative outcomes as well.

AND THERE WERE OTHER DRAWBACKS.

ONLY A FEW IMPORTANT CROPS--ESPECIALLY WHEAT, RICE, AND MAIZE--WERE IMPROVED.

AND THE REVOLUTION ALMOST COMPLETELY BYPASSED AFRICA, WHERE CROP YIELDS ARE STILL ABOUT EQUAL TO THOSE OF FARMERS DURING THE ROMAN EMPIRE.

HUNGER IN AFRICA IS EVEN MORE PREVALENT NOW THAN IT WAS DECADES AGO.

SCIENTISTS AT THE INTERNATIONAL AGRICULTURAL RESEARCH CENTERS ACKNOWLEDGE THE GREEN REVOLUTION'S LIMITATIONS, AND ARE TRYING TO CORRECT THEM.

BELLON: For example, a lot of the work that we do here is to provide resistance in the varieties that we produce, therefore requiring less pesticides. Another very interesting part of the work that we're doing, particularly in Africa, is to develop varieties that are drought tolerant and that work well under low fertilizer, low nitrogen conditions. Nobody would deny that yield and productivity is important. But there is a much more broader understanding of what productivity is.

THOUGH SUCH WORK IS MORE EXPENSIVE AND COMPLICATED, INTERNATIONAL SUPPORT FOR THE CENTERS HAS BEEN DECLINING STEADILY.

BELLON: The budget of CIMMYT for one year is roughly what a jet fighter would cost. And what do you get out of it. You get a lot of different varieties of maize and wheat that work not only let's say in Mexico, but in many places, in areas where there is a lot of poverty, a lot of hunger, where there is AIDS, where people are really having a really rough life.

MANY OF THE IMPROVED CROP VARIETIES ARE THE RESULT OF BREEDING METHODS THAT SCIENTISTS HAVE BEEN USING FOR DECADES.

NOW, SUCH WORK IS ASSISTED BY ADVANCES IN BIOTECHNOLOGY.

WOMAN IN LAB: And what we'll do, we'll take these sequences and compare them to online databases of sequences of a thousand different bacteria that are already there...

IN CIMMYT LABORATORIES, SCIENTISTS GAIN A DEEPER UNDERSTANDING OF THE MOLECULAR STRUCTURE OF PLANTS AND THE PESTS AND DISEASES THAT ATTACK THEM.

ONE ASPECT OF BIOTECHNOLOGY IS GENETIC ENGINEERING, WHICH CIMMYT USES TO PRODUCE INSECT-RESISTANT MAIZE.

MANY SCIENTISTS BELIEVE THE NUTRITIONAL VALUE OF FOOD CROPS MAY SOON BE ENHANCED BY GENETICALLY INTRODUCING VITAMINS OR A HIGHER PROTEIN CONTENT. BUT FOR NOW, MOST GENETIC ENGINEERING RESEARCH IS DIRECTED TOWARD IMPROVING RESISTANCE TO PLANT PESTS AND DISEASES.

Harvesting sweet potatoes

IN A FIELD IN CENTRAL KENYA, FARMERS HARVEST SWEET POTATOES, A POPULAR STAPLE.

SOIL QUALITY AND MOISTURE ARE GOOD HERE, BUT MANY OF THESE SWEET POTATOES ARE MUCH SMALLER THAN THEY SHOULD BE.

THEIR POOR GROWTH IS THE RESULT OF A DESTRUCTIVE VIRUS.

WAMBUGU: A sweet potato like this should probably be the same size like this. You see the big loss. It is a big loss in volume, in quality and marketability.

FLORENCE WAMBUGU IS AFRICA'S BEST-KNOWN ADVOCATE OF BIOTECHNOLOGY.

DR. WAMBUGU IS DEVELOPING SWEET POTATOES THAT ARE GENETICALLY MODIFIED TO RESIST VIRUSES, REDUCING THE NEED FOR PESTICIDES AND OTHER AGRICULTURAL CHEMICALS.

SHE THINKS THAT MAKES SENSE FOR POOR AFRICAN FARMERS.

WAMBUGU: But most of the farmers here cannot read and write. They're not able to comprehend complicated messages or mixing solutions of that chemical and that chemical and so on. But when you give them the seed, the seed which has already had the technology, the technology is packaged in the seed.

DR. WAMBUGU IS CONVINCED THAT OTHER APPLICATIONS OF GENETIC ENGINEERING ARE EVEN MORE COMPELLING.

WAMBUGU: Drought tolerance would be a major opportunity for Africa and many of the places where water is a limitation.

MOSES ONIM (showing maize): This particular bag was infested with pests...

KINYUA M'MBIJJEWE: An estimated 40% of Africa's maize is destroyed by storage pests. If we come up with a biotechnology solution so that doesn't have to happen, then you would have so much more harvest that is saved.

BUT SO FAR, DESPITE HIGH EXPECTATIONS, BIOTECHNOLOGY HAS LARGELY BY-

PASSED THE POOR.

ONE REASON IS COST.

Gene gun

GENETIC ENGINEERING IS AN EXPENSIVE SCIENCE, AND PATENTING OF GENES AND TECHNIQUES HAS MADE IT MORE SO.

SUCH PATENTS MAKE IT INCREASINGLY DIFFICULT FOR PUBLIC RESEARCHERS TO DO PLANT BREEDING, INCLUDING CONVENTIONAL BREEDING, WITHOUT INFRINGING ON INTELLECTUAL PROPERTY RIGHTS OWNED BY LARGE CORPORATIONS.

SHAWN SULLIVAN: Everyone who is doing research in this area...has to be aware of intellectual property because it is a real issue for everyone now...I had a scientist come to me and he asked me to do a search of the patent literature, to determine whether there were patents in an area that might possibly block his ability to do research in an area. But the way he introduced it to me has really caught my attention immediately, because he said I'm working on something to fortify cereal crops in a way that could save thousands of lives.

COSTLY LEGAL WORK NOW CLAIMS A LARGE AND GROWING SHARE OF CIMMYT'S FALLING BUDGET.

SULLIVAN: As a lawyer working in private practice, I repeated on behalf of clients the standard dogma that patents are good, intellectual property is good...but I see now the other side of the coin...There are cases in which patents on research tools for instance can provide roadblocks to much needed research.

ONE SOLUTION TO THE PROBLEM IS PUBLIC-PRIVATE PARTNERSHIPS ALLOWING HUNGER RESEARCHERS SPECIAL ACCESS TO PATENTED GENES OR TECHNOLOGIES.

M'MBIJJEWE: Companies need to be creative and say we're ready to share these technologies either at subsidized cost or royalty free.

THE JURY IS STILL OUT ON BIOTECHNOLOGY'S PROMISE.

VERY DIFFICULT SAFETY QUESTIONS NEED TO BE RESOLVED, AND EVEN ITS CHAMPIONS NO LONGER CALL IT A SILVER BULLET FOR ENDING HUNGER.

M'MBIJJEWE: When we first came out with the messages on biotechnology, we were a bit arrogant about how we communicated biotechnology. We were so excited about its potential that perhaps we over-claimed and overstated things...I think the truth is somewhere in between those who say that it is the answer for feeding the world and those who say that it has no role to play.

IF SAFETY CAN BE ASSURED AND PATENTING ISSUES SUCCESSFULLY RESOLVED, BIOTECHNOLOGY MAY YET PLAY AN IMPORTANT ROLE IN COMBATTTING HUNGER.

BUT THERE MAY BE CHEAPER, EQUALLY EFFECTIVE WAYS TO IMPROVE FOOD PRODUCTION IN THE DEVELOPING WORLD.

MOSES ONIM: Which farm was this that the seed came from...

AT LEAST, THAT'S WHAT MOSES ONIM THINKS. HE OWNS A SMALL SEED COMPANY IN THE KENYAN CITY OF KISUMU.

ONIM: The Farmers tell us that they are poor, they are telling they cannot buy seed every season. So as a seed company we know we'd like, we'd love to make a profit like any other company, but when you factor in all these other social issues then you start thinking differently.

ONIM (workers preparing seeds): Yeah, just continue and once not very many seeds are dropping, then you know it's done.

DR. ONIM HAS BEEN ASKING POOR FARMERS WHAT THEY NEED SINCE HIS COLLEGE DAYS.

ONIM: When I started doing my Ph.D. research work...I quickly moved away from the academic pursuit into trying to address the needs of the communities...Therefore my breeding was not based on what I wanted to do, it was what they wanted to do. They wanted large grains; they wanted a variety that would cook fast

THE FARMERS ALSO COMPLAINED THAT HYBRIDS DIDN'T PERFORM WELL IN THEIR POOR SOILS.

THEY TOLD ONIM THAT ABOUT ONE PERCENT OF THEIR OWN CORN PRODUCED TWO EARS PER PLANT.

IT WAS ALSO DELICIOUS AND QUITE RESISTANT TO PESTS.

SO ONIM HAD AN IDEA. HE SOUGHT OUT THESE HIGHER-YIELDING "DOUBLE COBBERS" AND BEGAN SAVING AND MULTIPLYING THEIR SEEDS.

IN TIME, DR. ONIM HAD SUPPLIES OF SEEDS THAT CONSISTENTLY PRODUCED TWO EARS PER PLANT.

HIS SEEDS EVEN OUTYIELD MANY HYBRIDS, AND THEY RETAIN THEIR PRODUCTIVE VIGOR IN SUCCEEDING GENERATIONS. SO FARMERS DON'T NEED TO COME BACK AND BUY MORE SEED EVERY YEAR.

ONIM: There is a lot of knowledge out in the villages. If all the people can care and be humble enough to listen to the villagers as partners in research.

Hans Herren in field

IN A CASSAVA FIELD, DR. HANS HERREN LOOKS FOR A TINY INSECT CALLED A MEALY-BUG.

Showing bug

HE FINDS ONE, BUT THERE ARE NOT MANY HERE. NOT ANYMORE.

BORN IN SWITZERLAND, HERREN CAME TO AFRICA 25 YEARS AGO, FROM THE UNIVERSITY OF CALIFORNIA.

AT THE TIME, THE CASSAVA, A KEY STAPLE CROP IN AFRICA, WAS BEING DECIMATED BY THIS TINY BUG.

NATIVE TO SOUTH AMERICA, THE MEALYBUG HAD BEEN RECENTLY INTRODUCED TO AFRICA, WHERE IT HAD NO NATURAL ENEMIES.

HERREN BELIEVES IN USING BIOLOGICAL CONTROLS INSTEAD OF CHEMICALS TO FIGHT PESTS.

HE LED A DESPERATE RESEARCH EFFORT, WHICH SUCCEEDED IN FINDING A NATURAL ENEMY OF THE MEALYBUG, A PARASITIC WASP FROM PARAGUAY. IT WAS RELEASED ON AFRICAN CASSAVA FIELDS.

HERREN: Within about twelve years, twenty million dollars, we solved the problem of the mealybug permanently from Dakar to Maputo. And, I think, along the way, saved about 20 million lives, which turns out to be about one dollar per life saved. It's not a bad output for such a program.

HERREN NOW DIRECTS THE INTERNATIONAL CENTER OF INSECT PHYSIOLOGY AND ECOLOGY, OR ICIPE.

AT ICIPE'S LAKE VICTORIA RESEARCH STATION, INNOVATIVE, INEXPENSIVE, AND ENVIRONMENTALLY-FRIENDLY SOLUTIONS FOR A HOST OF AFRICAN PROBLEMS ARE EMERGING.

HERREN: We were looking at what kinds of solutions can we find which the farmers could apply without spending a lot of money.

THE MOST PROMISING IS A SYSTEM CALLED "PUSH-PULL," USED TO CONTROL STEM-BORERS AND OTHER PESTS.

ZIA KHAN explains: And you can see the stem borer here. It has damaged the maize, and the plant gets weaker and weaker.

DR. ZIA KHAN, A RESEARCHER AT ICIPE, HAS FOUND THAT A PLANT CALLED DESMODIUM REPELS STEM BORERS—THAT'S THE "PUSH."

BUT THIS NAPIER GRASS ATTRACTS THEM—THAT'S THE "PULL."

WHEN DESMODIUM IS GROWN WITH MAIZE, AND NAPIER GRASS IS PLANTED AROUND IT, STEMBORERS END UP IN THE GRASS INSTEAD OF THE CORN.

DESMODIUM OFFERS OTHER BENEFITS. IT'S A LEGUME—AND PROVIDES NITROGEN AND ORGANIC MATERIAL FOR POOR SOIL—COMMONPLACE THROUGHOUT AFRICA.

IT ALSO PROTECTS THE SOIL FROM EROSION AND RETAINS MOISTURE, A KEY FACTOR IN TIMES OF DROUGHT. BUT DESMODIUM PROVIDED ANOTHER, UNEXPECTED, SURPRISE.

Woman picking striga

HERREN: We discovered by chance that desmodium suppresses Striga, which is the witch weed, a tremendous problem in maize and sorghum growing in all of Africa.

THOUGH ITS PURPLE BLOSSOMS LOOK APPEALING, STRIGA IS A DEADLY PARASITE.

IT ATTACHES ITSELF TO MAIZE ROOTS AND RELEASES A TOXIN THAT KILLS THE MAIZE. IN MANY CASES, MAIZE CROPS ARE COMPLETELY WIPED OUT.

Zia with woman and desmodium seeds

ICIPE PROVIDES DESMODIUM SEED AND HELPFUL ADVICE TO SMALL FARMERS, MOST OF WHOM ARE WOMEN.

IN FIELDS WHERE FARMERS HAVE PLANTED DESMODIUM AND NAPIER GRASS, THEIR YIELDS HAVE IMPROVED DRAMATICALLY, PROVIDING EXTRA FOOD AND NEW INCOME, AND HELPING BREAK THE CYCLE OF POVERTY.

DEBORA ODHIAMBO: This money I'm getting is what I'm using for my kids. I pay their school fees and we also feed ourselves.

Debora Odhiambo cutting desmodium and feeding cattle

DESMODIUM AND NAPIER GRASS NOT ONLY HELP DEBORA OHDIAMBO FERTILIZE HER SOIL. THEY ALSO PROVIDE FOOD FOR HER CATTLE.

Opening the gate

THE CATTLE, IN TURN, PROVIDE MILK FOR HER CHILDREN AND FOR THE MARKET. WITH HER INCREASED INCOME, SHE WILL BUY MORE COWS.

ODHIAMBO: If I can get two more, I think I will be very rich.

HERREN: So, more push pull and you'll have more cows right?

ODHIAMBO: Yes, because I put more push pull, more cows, more napier,...money will just flow coming because I will not go out to look for it.

BUT SO FAR, THERE IS NOT ENOUGH MONEY TO PRODUCE DESMODIUM SEEDS FOR ALL THE FARMERS WHO NEED THEM.

HERREN: This is a program which will pay for itself...we still are struggling to get the funding to bring it to the next step...

HERREN IS ANGRY THAT RICH COUNTRIES SPEND AS MUCH IN HALF A DAY ON FARM SUBSIDIES AS THEY SPEND IN A YEAR FOR RESEARCH TO HELP THE HUNGRY.

HERREN: Now, all of a sudden things become clear. We are expected here, with these few crumbs to develop an agriculture which is efficient, which is matching, basically, western agriculture and even compete with it. That's not possible. This is a drop on a hot stone.

WOMAN to ZIA: So when I find some plants

ZIA to WOMAN: You uproot it, you uproot it

WOMAN to ZIA: So, I just uproot it?

ZIA to WOMAN: You uproot it because if you leave it...

MUCH MORE SUPPORT IS NEEDED FOR RESEARCH, DISTRIBUTION OF BETTER SEEDS, TRAINING OF AFRICAN SCIENTISTS AND OUTREACH TO SMALL FARMERS.

BUT HANS HERREN, JANE ININDA AND MOSES ONIM BELIEVE AFRICA CAN FEED ITSELF.

THEY HAVE SEEN MANY POSITIVE CHANGES IN THE LIVES OF THE HUNGRY PEOPLE WITH WHOM THEY WORK—PEOPLE LIKE TRIZA MAIRANI.

NOT LONG AGO, TRIZA WAS STRUGGLING. HER PRIMARY CROP, COFFEE, NO LONGER BROUGHT A DECENT PRICE.

SHE FEARED SHE MIGHT LOSE HER TINY FARM, AND END UP AS ONE MORE DESTITUTE REFUGEE IN THE SLUMS OF NAIROBI.

FARM EXTENSION WORKERS, TRAINED IN A SPECIAL PROGRAM AT CORNELL UNIVERSITY, SHOWED HER HOW TO DIVERSIFY HER FARM, AND TO PROSPER.

MAIRANI: I have one cow, one calf. I have rabbits. I grow other crops, like onions, which I use for my kitchen. I have bananas, fruits... carrots. It's very important to grow these things...it helped me to have a balanced diet for my children and also for myself...

STORIES LIKE TRIZA MAIRANI'S MAKE IT CLEAR THAT ENDING HUNGER IS NOT A HOPELESS CAUSE.

BUT PRODUCING MORE FOOD IS NOT ALL THAT'S NEEDED.

THERE ARE ISSUES OF DISTRIBUTION AND INFRASTRUCTURE, CORRUPTION, ACCESS TO LOANS, LAND REFORM... TRADE, SUBSIDIES AND TARIFFS...

PINSTRUP-ANDERSEN: Right now in the United States, Japan and the European Union, we maintain very high import tariffs...we also export what we have too much of at subsidized prices. So not only are we keeping developing country farmers out of our own markets, but we are also ruining their markets in their countries... You cannot be vaccinated against hunger. It is part of a much bigger, complex set of issues and these issues can only be resolved if governments decide that it is important enough to do so.

Brazil music

SO WHAT MIGHT A COMPREHENSIVE ANTI-HUNGER PROGRAM LOOK LIKE? ONE POSSIBLE ANSWER IS EMERGING IN SOUTH AMERICA.

Music continues

IN OURO PRETO, BRAZIL, COURTSHIP STILL COMES WITH A SONG AND A GUITAR.

AND THE CHURCHES, SQUARES, AND COBBLESTONED STREETS STILL LOOK LIKE THEY DID IN 1750, WHEN HALF THE WORLD'S GOLD CAME FROM THIS MOUNTAINOUS TOWN.

ARMIES OF SLAVES BUILT ITS STUNNING PALACES AND CATHEDRALS.

IN 18TH CENTURY BRAZIL, EXTREME WEALTH AND POVERTY DWELT SIDE BY SIDE.

THEY STILL DO.

THE GAP BETWEEN BRAZIL'S RICH AND POOR IS AMONG THE WIDEST IN THE WORLD AND HUNGER IS NO STRANGER TO MILLIONS OF ITS PEOPLE.

ARANHA: The richest 10% of the population controls 50% of the wealth we produce...In Brazil, two babies die from starvation every three minutes. Sixty one percent of infant mortality is the result of malnu-

trition, whether the babies die of pneumonia, diarrhea or other illnesses.

Fome Zero ad begins

BUT IN 2003, BRAZIL LAUNCHED THE WORLD'S MOST AMBITIOUS AND COMPREHENSIVE ANTI-HUNGER CAMPAIGN.

Fome Zero ad continues

FOME ZERO...

IN PORTUGUESE, IT MEANS NO HUNGER.

IN BRAZIL, NEARLY EVERYONE IS TALKING ABOUT FOME ZERO.

Another ad

SO HOW DOES FOME ZERO WORK?

Belo schoolchildren getting lunch

THE ANSWERS LIE HERE, IN THE CITY OF BELO HORIZONTE, WHERE FREE AND NUTRITIOUS SCHOOL LUNCHES ARE JUST ONE OF MANY TOOLS USED TO FIGHT HUNGER.

Belo skyline

BELO HORIZONTE IS BRAZIL'S THIRD LARGEST CITY, WITH NEARLY 3 MILLION INHABITANTS.

IT WAS HERE THAT THE MODEL FOR FOME ZERO FIRST TOOK SHAPE.

Belo street scene

AT FIRST GLANCE, BELO APPEARS PROSPEROUS.

BUT AMONG ITS MODERN SKYSCRAPERS AND GRAND HOMES LIE THE FAVELAS...

THE SLUMS...

SHANTYTOWNS FILLED WITH POOR PEOPLE.

YET, EVEN HERE THERE ARE SIGNS OF HOPE.

IN 1993, PATRUS ANANIAS, A CATHOLIC UNIVERSITY PROFESSOR, WAS ELECTED MAYOR OF BELO.

ALARMED THAT A QUARTER OF THE CITY'S POPULATION WAS MALNOURISHED, HE VOWED TO END HUNGER.

Adriana cooking/family shots

HE ASKED ADRIANA ARANHA, A FORMER STUDENT OF HIS, TO SUPERVISE THE EFFORT.

ARANHA: The poverty in Brazil always bothered me, ever since I was a little girl...While I would sleep, warmly under my covers, with rain falling on the roof, there would be others outside, without these basics, hungry and cold...When I started acquiring a political conscience, I realized this was not the way it was supposed to be. This was not what God wanted. We had to do something to change the situation.

BUT IT WAS HARD TO KNOW WHAT TO DO. IN BRAZIL AT LEAST, THERE WERE NO MODELS TO LEARN FROM.

ARANHA: From what I could see, the distribution of food was an area that was ignored, abandoned. I was indignant. Why? Because food is not a material luxury. It's more like the air we breathe. If people don't eat they don't live. It's different than owning a car or a TV.

Produce coming in to the big market

AS A VISIT TO BELO'S GIANT WHOLESALE MARKET QUICKLY REVEALS, THERE IS NO SHORTAGE OF FOOD IN THIS CITY.

BLESSED WITH RICH AGRICULTURAL LAND, BRAZILIANS PRODUCE MORE THAN THREE THOUSAND DAILY CALORIES OF FOOD PER CAPITA.

ARANHA: If you consider that the United Nations recommends 2200 calories per day per capita, you see there is sufficient production in Brazil to end hunger...I realized the problems surrounding the access to food were not caused by lack of food. They were caused by market forces impeding people's access to food.

MANY OF THE CITY'S POOREST PEOPLE SIMPLY DIDN'T EARN ENOUGH MONEY TO AFFORD AN ADEQUATE DIET.

Adriana in office with colleagues

THE CHALLENGE FACING ADRIANA AND HER COLLEAGUES WAS HOW TO GET FOOD TO THE PEOPLE WHO NEEDED IT MOST.

ARANHA: We asked ourselves: what parts of the community are most vulnerable to hunger?

Kids entering day care

WHAT THEY FOUND WAS THAT MOST OF BELO'S HUNGRY RESIDENTS WERE CHILDREN.

IN RESPONSE, THEY BEGAN OFFERING FREE MEALS IN SCHOOLS AND CHILD CARE CENTERS LIKE THIS ONE.

EXTRA SUPPLEMENTS OF ENRICHED FLOUR WERE PROVIDED FOR MALNOURISHED CHILDREN.

At another day care

THE MEALS ARE NOW OFFERED TO ALL CHILDREN IN THE FAVELAS, EVEN THOSE WHO AREN'T REGULARLY ENROLLED IN DAYCARE CENTERS OR SCHOOLS.

AND THE CITY PAYS THE COST, WITH A LITTLE HELP FROM BRAZIL'S FEDERAL GOVERNMENT.

MARILENA: In the community there is a high level of unemployment. Since their parents are out of work, most kids come here to eat and end up spending the day. This is because they don't have enough food at home...They have all their meals here, from breakfast to dinner...When children first get here, we can see the signs of malnutrition, but as soon as they get into the program and start eating, they start improving.

Favela clinic

IN A FAVELA CLINIC, CHILDREN ARE TESTED FOR SIGNS OF MALNUTRITION.

ARANHA: All children who arrive at the health center who are underweight are considered victims of malnutrition.

WITHIN SIX MONTHS, MOST MALNOURISHED CHILDREN WHO RECEIVE SCHOOL MEALS ARE ABLE TO MAINTAIN A HEALTHY WEIGHT.

ARANHA: And of the children with the most serious malnutrition, 91% recuperate. In other words, from the jaws of death, they fatten up

BUT THE CITY'S PROGRAMS AREN'T CONFINED TO CHILDREN.

People entering the Popular Restaurant

THIS IS ONE OF BELO'S THREE POPULAR RESTAURANTS, AND POPULAR IT IS.

Cooking in kitchen

EACH DAY, THESE COOKS PREPARE ENOUGH FOOD TO PROVIDE LUNCHESES FOR ABOUT 6,000 PEOPLE.

Montage with music

AT LUNCH TIME, THE LINE HERE STRETCHES ALL AROUND THE BLOCK.

Paying for food

THE CITY SUBSIDIZES TWO-THIRDS OF THE COST OF THE LUNCHESES, FOR WHICH DINERS PAY ONLY ONE BRAZILIAN REAL, ABOUT THIRTY CENTS IN US CURRENCY.

FOR MANY OF BELO'S RESIDENTS, A DAILY MEAL HERE MEANS THE DIFFERENCE BETWEEN HUNGER AND ADEQUATE NUTRITION.

MAYOR FERNANDO PIMENTEL: This anti-hunger program brings me much satisfaction. I feel compensated for the work involved in governing a big city when I see the needy people that are helped by these programs...

Adriana and Cestao Popular bus

BUT MANY HUNGRY PEOPLE CANNOT GET TO THE POPULAR RESTAURANTS.

SO THE CITY BRINGS FOOD TO THEM.

IN BELO'S FAVELAS, RESIDENTS LINE UP EACH WEEK TO SEE WHAT THE "POPULAR BASKET," BUS HAS TO OFFER.

ON THE BUS, THEY PURCHASE SUBSIDIZED STAPLES, PRICED AT TWO-THIRDS OF THEIR COST IN PRIVATE STORES.

BUT SIMPLY PROVIDING FOOD IS NOT ENOUGH.

ARANHA: The community also has to be aware of what is right to eat and healthy.

People gathering for nutrition course

Discussion group

SO THE CITY SPONSORS NUTRITION EDUCATION COURSES LIKE THIS ONE.

ARANHA: One big problem for us these days is that we have people who are very malnourished and yet very obese. So why this obesity? Because people are not eating foods rich in fiber and vitamins.

Preparing food and demonstrating

THOSE WHO COME TO THE CLASSES ARE SHOWN HOW TO PREPARE MORE NUTRITIOUS MEALS, AND WHAT FOODS ARE BEST FOR THEIR HEALTH.

ARANHA: We encourage people to eat more fruits and vegetables, to eat fewer products that contain chemicals and to avoid waste in preparing them.

Market

AT A DOWNTOWN MARKET, SHOPPERS ALSO FIND EXCELLENT PRODUCE AT PRICES LOWER THAN THOSE IN PRIVATE STORES.

THE CITY PROVIDES THE SPACE TO LOCAL FARMERS.

IN RETURN FOR THE FREE SPACE, THE FARMERS MUST AGREE TO PRICE CONTROLS ON THEIR PRODUCE.

ARANHA: What city government is doing now is ending the middleman by having producers sell directly, and inexpensively, to the consumers. The consumer pays less and the producer earns more.

Farmers irrigating

NOT FAR FROM BELO HORIZONTE, FARMERS PREPARE A FIELD FOR PLANTING.

MANY OF THEM ARE EARNING MORE.

SMALL FARMS THAT WERE ONCE BEING ABANDONED ARE NOW BEGINNING TO PROSPER.

Adriana and farmers

ADRIANA FREQUENTLY LEAVES THE CITY TO MEET WITH FARMERS, TRYING TO CONVINCE MORE OF THEM TO BECOME ACTIVE IN THE ANTI-HUNGER CAMPAIGN.

Organic market

SHE ALSO ENCOURAGES THEM TO PRODUCE FOOD ORGANICALLY.

IN ONE SECTION OF BELO HORIZONTE, THE CITY HAS CREATED AN ORGANIC MARKET.

RIGHT NOW, ORGANIC PRODUCE IS STILL EXPENSIVE.

BUT ADRIANA HOPES OTHER FARMERS WILL BEGIN TO CULTIVATE WITHOUT CHEMICALS, INCREASING THE SUPPLY OF ORGANIC FOOD AND BRINGING PRICES DOWN.

ARANHA: Healthy food has to be nutritious, uncontaminated, and has to be produced in a sustainable manner. We can't be polluting the environment and compromising future generations...

IT'S OBVIOUS THAT BELO HORIZONTE'S ANTI-HUNGER CAMPAIGN IS A COMPREHENSIVE ONE:

FREE MEALS IN SCHOOLS...

SUBSIDIZED RESTAURANTS...

FOOD DELIVERY TO POOR FAVELAS...

NUTRITION EDUCATION...

DIRECT FARM TO CITIZEN MARKETING, WITH PRICE CONTROLS...

PROMOTION OF ORGANIC AND SUSTAINABLE AGRICULTURE...

AND YET, THE CAMPAIGN COSTS ONLY A FRACTION OF THE CITY'S ANNUAL BUDGET.

ARANHA: We don't get a single complaint about this program. Deep down, people are united with us on this.

Adriana at MST meeting

ADRIANA ARANHA HAS ALSO BEGUN TO WIDEN HER EFFORTS TO END HUNGER.

NOT FAR FROM THE CITY, SHE MEETS WITH LEADERS OF A SQUATTERS' CAMP ORGANIZED BY BRAZIL'S LANDLESS PEASANTS' MOVEMENT, TO BUY PRODUCE FROM THE CAMP.

FOR THE PAST TWO DECADES, THE PEASANT MOVEMENT, KNOWN BY ITS INITIALS M.S.T, HAS BEEN TAKING OVER UNUSED AGRICULTURAL LANDS IN BRAZIL, SO THAT POOR PEOPLE MAY FARM THEM.

MOST POOR, RURAL BRAZILIANS HAVE NO LAND OF THEIR OWN.

ARANHA: Vast amounts of land are in the hands of a few that don't produce and lots of people are expelled from the fields and come into the cities.

WAGNER MARTINS: Coming to the large cities, they saw that they would be reduced to living in the favelas, the slums...The MST in Brazil was born out of necessity

WAGNER MARTINS USED TO BE A STREET VENDOR IN BELO HORIZONTE.

DESPERATE FOR A BETTER LIFE, HE JOINED THE MST, AND HELPED TAKE OVER THIS LAND FROM A LARGE LANDOWNER WHO WASN'T USING IT TO PRODUCE ANYTHING.

TODAY, SEVERAL FAMILIES LIVE IN THE HOME THE LANDOWNER ABANDONED LONG AGO.

THROUGHOUT THE CAMP, PEOPLE HAVE BEEN BUILDING MAKESHIFT SHELTERS, PLANTING AND HARVESTING CROPS, RUNNING THEIR OWN SCHOOLS, AND MAKING A NEW LIFE.

Montage of camp shots

THE CAMP IS BORDERED BY A RIVER, AND THERE ARE FISH TO CATCH.

Children playing soccer

AND WHILE THESE CHILDREN HAVE FEW POSSESSIONS, THEY LIVE IN SAFE SURROUNDINGS, FREE FROM THE VIOLENCE OF URBAN SLUMS.

MARTINS: A camp like this one, poor as it is, brings a better quality of life. So we have families coming to this camp, desperately escaping the situation in the favelas.

Martins giving a bath to his son

MARTINS: We all want to see our children raised in the best way possible...I want to see my son wandering freely in nature, alongside the animals, having greater contact with nature...I believe my son will have a better life than many, many Brazilians.

BRAZILIAN LAW STATES THAT LAND THAT IS UNCULTIVATED FOR A LONG PERIOD OF TIME MAY BE CLAIMED BY THE LANDLESS.

BUT, IN FACT, THE FUTURE HERE IS STILL UNCERTAIN.

THE OWNER OF THIS LAND HAS CHALLENGED THE MST TAKEOVER IN COURT.

MARTINS: The judicial system is very slow. We don't know when they'll make a decision. But despite this, we continue planting here, constructing, living our lives.

EVEN IF THEY ARE ALLOWED TO KEEP THE LAND, IT WON'T BE EASY TO PRODUCE FOOD EFFICIENTLY ENOUGH TO COMPETE IN THE MARKET.

ARANHA: In Brazil, family farms produce most products consumed yet the small producer lacks access to stimulus such as financial credit from banks. The interest rates are high. Only the large producers are able to get decent financing.

MARTINS: If there are no resources to invest in the little things--tractors, and agricultural outreach for the small producers, we won't be able to stay on the land.

Lula rally

YET TODAY, THE FARMERS, AND ALL OF BRAZIL'S POOR, HAVE A FRIEND IN A POWERFUL POSITION WHO WANTS TO CHANGE THESE THINGS.

IN 2002, LUIS INACIO LULA DA SILVA, THE CANDIDATE OF THE WORKERS' PARTY, WAS ELECTED PRESIDENT OF BRAZIL BY A WIDE MARGIN.

RIGHT AWAY, LULA, AS THE BRAZILIANS CALL HIM, ANNOUNCED THAT HIS TOP PRIORITY WOULD BE TO END HUNGER IN BRAZIL. HE ASKED THAT HIS ADMINISTRATION BE JUDGED BY HIS SUCCESS IN ACCOMPLISHING THAT.

Photo of Adriana with Lula

ARANHA: For me, Lula's victory was a big wish come true. I started to cry when I heard the president's speech because I saw that we had a leader that made this his mandate...And here's a special fact, Lula himself came from a poor family and he knows what it is like to go hungry.

LULA OFTEN VISITS BELO HORIZONTE, SEEKING IDEAS AND INSPIRATION FOR FOME ZERO, HIS ANTI-HUNGER CAMPAIGN.

MANY OF THE PROGRAMS THAT WERE ADOPTED FIRST IN BELO ARE NOW BEING IMPLEMENTED ELSEWHERE IN BRAZIL. ADRIANA IS ACTIVELY INVOLVED IN THE CAMPAIGN.

ARANHA: We are not totally finished. Many are still hungry. Because ending hunger doesn't depend just on this city. It depends on the whole country, on the entire world.

SO PRESIDENT LULA IS ASKING OTHER WORLD LEADERS TO HELP. ONE IDEA HE PROMOTES IS AN INTERNATIONAL ZERO HUNGER CAMPAIGN FUNDED BY A TAX ON GLOBAL TRADE.

OF COURSE, THE MONEY WOULD NOT BE SPENT THE SAME WAY EVERYWHERE. IN BRAZIL, THERE IS ENOUGH FOOD; THE ISSUE IS GETTING IT TO THE PEOPLE WHO NEED IT MOST.

BUT IN AFRICA, PRODUCING MORE FOOD IS STILL A PRIORITY. BETTER CROP VARIETIES AND NEW METHODS OF FARMING ARE NEEDED.

TRAINING LOCAL SCIENTISTS AND EXTENSION AGENTS IS VITAL. INFRASTRUCTURE, ROADS AND MARKETS ALL MUST BE IMPROVED.

IT ALL SOUNDS DAUNTING, BUT CONSIDER THE ALTERNATIVE: A HUNGRY WORLD, FULL OF DESPERATE PEOPLE IS NOT A SECURE WORLD, NOT FOR THE POOR, NOR FOR RICH, NOR FOR THE ENVIRONMENT ON WHICH WE ALL DEPEND.

BELLON: You cannot be thinking about, well you know, if I cut these trees and if I open this area I might lose all the soil in twenty years, because if you don't produce here now your children might die. Therefore the hungrier and the less opportunity that people have, the less care they are going to take of their environment, simply because, I mean that is human you know, your priority is to survive.

BECKMANN: The progress that we can make against hunger is irreversible progress... We're not in the process of setting up an eternal welfare system. What we are trying to do is to open opportunities for people who are now hungry to earn enough money so they can take care of themselves. And once you get to that threshold, there won't be any going back.

PINSTRUP-ANDERSEN: So they will escape poverty and we will be able to have more employment and more income from exporting to them, so it is a win, win proposition. It is an investment in our common future both economically and in terms of international stability.

BECKMANN: The US could do its part to cut world hunger in half by 2015 at a cost of about one and a half billion dollars a year. Now, one and a half billion dollars is a lot of money but it amounts to less than two cents per American per day...

FOR NOW, THE SILENT KILLER CONTINUES TO KILL.

THE LITTLE GRAVES STAND AS MUTE TESTIMONY TO ITS POWER...

AND TO OUR FAILURE TO DO WHAT JOHN KENNEDY SAID WE SHOULD DO FORTY YEARS AGO.

WILL WE DO IT NOW?

M'MBIJJEWE: I would like to think that when I'm an old man...when I'm sitting with my child and I'm talking to my grandchild, I'm talking to him and telling them that once upon a time in Africa that people were hungry and dying of hunger, he wouldn't believe it.