



1
00:00:17,210 --> 00:00:14,959
what if you couldn't simply go to the

2
00:00:20,240 --> 00:00:17,220
grocery store or market and buy what you

3
00:00:22,040 --> 00:00:20,250
needed there is no shortage of food on

4
00:00:25,849 --> 00:00:22,050
the shelves but you do not have the

5
00:00:27,890 --> 00:00:25,859
money to purchase the booth this is an

6
00:00:30,050 --> 00:00:27,900
issue that millions of people face all

7
00:00:33,340 --> 00:00:30,060
across the world in countries big and

8
00:00:36,049 --> 00:00:33,350
small rich and poor each and every day

9
00:00:37,990 --> 00:00:36,059
access to food is dictated by several

10
00:00:40,369 --> 00:00:38,000
different factors like political strife

11
00:00:43,490 --> 00:00:40,379
environmental disasters or social

12
00:00:45,260 --> 00:00:43,500
circumstances and access rather than

13
00:00:48,770 --> 00:00:45,270

availability is the key to determining

14

00:00:50,930 --> 00:00:48,780

food security you can define food

15

00:00:53,299 --> 00:00:50,940

security as the ability of all people to

16

00:00:58,040 --> 00:00:53,309

have enough food for an active and

17

00:01:00,680 --> 00:00:58,050

productive life food security or the

18

00:01:03,680 --> 00:01:00,690

inverse idea of food insecurity is

19

00:01:05,840 --> 00:01:03,690

determined by three factors food

20

00:01:08,060 --> 00:01:05,850

security has three aspects

21

00:01:11,420 --> 00:01:08,070

there's food availability food access

22

00:01:14,330 --> 00:01:11,430

and food utilization food availability

23

00:01:17,390 --> 00:01:14,340

is where there's enough food in a market

24

00:01:20,719 --> 00:01:17,400

or in a store in a particular area to

25

00:01:22,399 --> 00:01:20,729

buy and you know there's enough food in

26

00:01:24,770 --> 00:01:22,409

the region for everyone to get enough

27

00:01:27,320 --> 00:01:24,780

food food access is where there's

28

00:01:30,050 --> 00:01:27,330

problems with actually having enough

29

00:01:32,660 --> 00:01:30,060

money to buy that food where you need to

30

00:01:34,700 --> 00:01:32,670

buy it and food utilization it has to do

31

00:01:37,490 --> 00:01:34,710

with the health of the individual who's

32

00:01:40,310 --> 00:01:37,500

actually eating the food so you can have

33

00:01:42,810 --> 00:01:40,320

food security problem simply due to

34

00:01:45,330 --> 00:01:42,820

illness and disease

35

00:01:47,040 --> 00:01:45,340

Molly works closely with an organization

36

00:01:50,400 --> 00:01:47,050

called the famine early warning systems

37

00:01:53,240 --> 00:01:50,410

network or fews net an agency within the

38

00:01:56,370 --> 00:01:53,250

39

00:01:59,310 --> 00:01:56,380

the famine early warning system what it

40

00:02:02,100 --> 00:01:59,320

does is provide critical pieces of

41

00:02:05,340 --> 00:02:02,110

information on an ongoing basis about

42

00:02:07,200 --> 00:02:05,350

how well vulnerable communities are

43

00:02:09,150 --> 00:02:07,210

doing and meeting their food needs from

44

00:02:12,180 --> 00:02:09,160

day to day there are many different ways

45

00:02:14,310 --> 00:02:12,190

you can become food insecure and the

46

00:02:16,800 --> 00:02:14,320

purpose of fews net is to identify those

47

00:02:19,050 --> 00:02:16,810

places where large numbers of people

48

00:02:19,670 --> 00:02:19,060

become food insecure for a variety of

49

00:02:22,260 --> 00:02:19,680

reasons

50

00:02:25,170 --> 00:02:22,270

two significant indicators of food

51
00:02:27,210 --> 00:02:25,180
security are weather and climate the

52
00:02:29,600 --> 00:02:27,220
disproportionate effect of both can

53
00:02:33,150 --> 00:02:29,610
determine the severity of famine

54
00:02:35,729 --> 00:02:33,160
rainfall is very sporadic and it's all

55
00:02:37,170 --> 00:02:35,739
about distribution and not amount and so

56
00:02:39,510 --> 00:02:37,180
it could be that even though you're

57
00:02:42,420 --> 00:02:39,520
having a very low rainfall year you get

58
00:02:44,460 --> 00:02:42,430
just enough at each it's each time it

59
00:02:46,710 --> 00:02:44,470
gets dry so that you really will have a

60
00:02:49,830 --> 00:02:46,720
pretty good production year if we can

61
00:02:51,750 --> 00:02:49,840
identify drought that necessarily does

62
00:02:53,910 --> 00:02:51,760
not mean that they become food insecure

63
00:02:56,370 --> 00:02:53,920

but the question is how much food

64

00:02:57,870 --> 00:02:56,380

security have they lost does it mean

65

00:03:00,420 --> 00:02:57,880

that they go from three meals a day to

66

00:03:02,039 --> 00:03:00,430

two meals a day does it mean that they

67

00:03:03,949 --> 00:03:02,049

don't have enough food to provide

68

00:03:07,560 --> 00:03:03,959

sufficient food for their children and

69

00:03:10,110 --> 00:03:07,570

the children become malnourished what

70

00:03:12,660 --> 00:03:10,120

we're trying to do is measure the level

71

00:03:14,880 --> 00:03:12,670

that they're at and predict which way

72

00:03:19,020 --> 00:03:14,890

they're going so that we can intervene

73

00:03:23,610 --> 00:03:19,030

in time through either USAID or through

74

00:03:25,320 --> 00:03:23,620

the community itself sometimes if a

75

00:03:29,160 --> 00:03:25,330

particular region is going to have a bad

76
00:03:32,039 --> 00:03:29,170
harvest fews net looks at the strength

77
00:03:33,930 --> 00:03:32,049
of the community they look at how much

78
00:03:36,660 --> 00:03:33,940
food was produced in previous years is

79
00:03:39,000 --> 00:03:36,670
this the first bad year after many good

80
00:03:42,030 --> 00:03:39,010
years or is it the fifth bad year in a

81
00:03:44,400 --> 00:03:42,040
row so it's all about context if we

82
00:03:46,860 --> 00:03:44,410
understand the context we can then

83
00:03:54,170 --> 00:03:46,870
provide accurate early warning of a

84
00:03:59,300 --> 00:03:56,750
this context includes politics and

85
00:04:01,959 --> 00:03:59,310
economics factors that are not easily

86
00:04:04,520 --> 00:04:01,969
measured especially not from space

87
00:04:06,860 --> 00:04:04,530
what a space-based perspective can

88
00:04:10,699 --> 00:04:06,870

provide however is valuable information

89

00:04:13,369 --> 00:04:10,709

about crop health satellite remote

90

00:04:15,740 --> 00:04:13,379

sensing particularly from vegetation

91

00:04:18,620 --> 00:04:15,750

because of its certainty and it's

92

00:04:22,129 --> 00:04:18,630

reliability across space and time has

93

00:04:24,290 --> 00:04:22,139

really come to be absolutely critical in

94

00:04:26,589 --> 00:04:24,300

trying to determine when there's a

95

00:04:29,300 --> 00:04:26,599

problem and when action is required

96

00:04:30,710 --> 00:04:29,310

having that early look at production

97

00:04:34,400 --> 00:04:30,720

that we get from remote sensing

98

00:04:36,980 --> 00:04:34,410

observations is critical to having the

99

00:04:40,010 --> 00:04:36,990

pieces in place and the analysis done

100

00:04:42,950 --> 00:04:40,020

and the people forewarned so that if

101
00:04:45,770 --> 00:04:42,960
there is a requirement for sending out

102
00:04:48,110 --> 00:04:45,780
food assistance we will have all the

103
00:04:54,260 --> 00:04:48,120
little pieces in place so that we can do

104
00:04:55,969 --> 00:04:54,270
that in a rapid way NASA will continue

105
00:04:57,980 --> 00:04:55,979
to provide this essential data and

106
00:04:59,659 --> 00:04:57,990
organizations like few net will

107
00:05:03,560 --> 00:04:59,669
continue to combat the factors that

108
00:05:06,250 --> 00:05:03,570
cause famine in the next two decades we

109
00:05:09,320 --> 00:05:06,260
expect to see simultaneous impacts from

110
00:05:12,589 --> 00:05:09,330
more people being around and needed to

111
00:05:15,230 --> 00:05:12,599
be fed and climate change impacting our

112
00:05:16,610 --> 00:05:15,240
ability to grow food and so we really

113
00:05:19,159 --> 00:05:16,620

don't know how climate is going to

114

00:05:21,620 --> 00:05:19,169

affect our food production capability

115

00:05:24,110 --> 00:05:21,630

but we really don't have the luxury to

116

00:05:24,560 --> 00:05:24,120

wait around and figure it out as it

117

00:05:28,100 --> 00:05:24,570

comes along

118

00:05:30,589 --> 00:05:28,110

food security is a major problem we need

119

00:05:32,029 --> 00:05:30,599

to be prepared to deal with it and we're

120

00:05:34,430 --> 00:05:32,039

really going to be relying on remote