

“A situation
becomes a *crisis*
when it overwhelms
the government’s
ability to respond”

vinay gupta hexayurt@gmail.com



question time

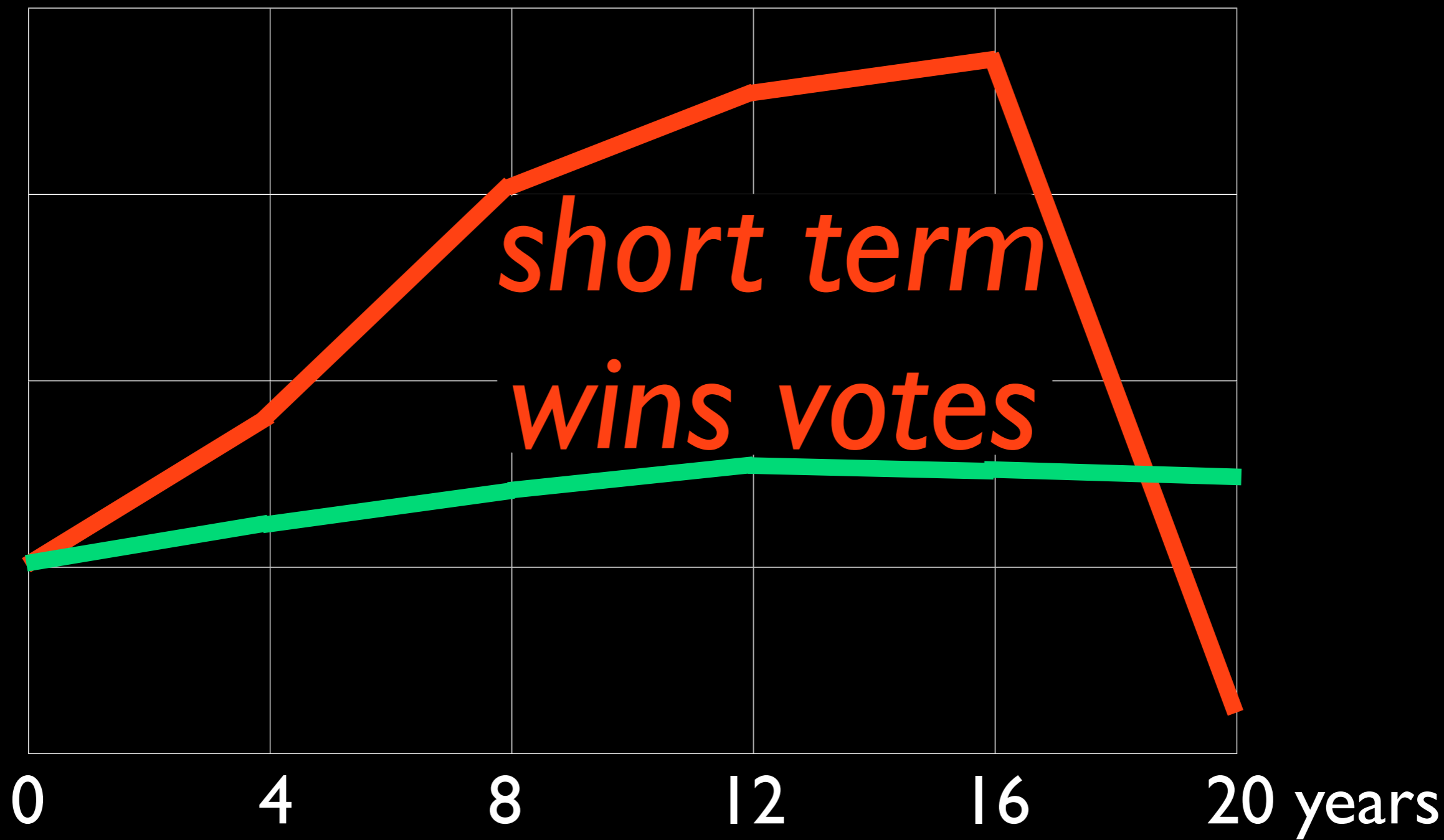
one or two short questions

we collectivized
risk management
in government

environment: *fail*

economy: *fail*

extraordinary risks: *fail*



China managed
One Child Family but
absolute power corrupts

conclusion government
is the wrong place to
manage big risks

it is not working
we cannot fix it
now what?



the failure of the State
to do risk management
returns risk to us

what could we use
instead of the State
for managing our risk?

Survivalism

mitigate all risks, live in
woods (with guns)

Green Wizards

individual experts
socially sharing skills

Transition Towns

social cooperation for
rising resource prices

Dark Mountain

change cultural reality,
refresh our possibilities

how do we
understand and evaluate
risk handling options?



some focus on the
threat

nukes, climate, flu, sea,
peak oil, bio all have
threat-focused groups

threat-focused groups
try to prevent or mitigate
their target risk

only a very few
threat-focused groups
fix their target risk

others focus on the
reaction

humanitarian NGOs
like the Red Cross are
reaction-focused groups

when a crisis happens
they try to clean up
and help people cope

we need both
threat and *reaction*
focused capabilities

managing risks

1) *detect*

2) *avoid* *

3) *mitigate* *

4) *recover*

* success here is victory

managing risks

threat	1) <i>detect</i>	
focused	2) <i>avoid</i>	
	3) <i>mitigate</i>	reaction
	4) <i>recover</i>	focused



all of these groups
function in
the context of the state

we are worried that
the state may *fail*
in some scenarios

sovereign default

systemic catastrophe

*how do we manage the
risk of state failure?*



where are we?

we are worried about
the planet and all the life
we live in symbiosis with

we are worried about
industrial civilization (aiac)*
which we depend on

**aiac - agro-industrial auto-catalysis*

we are worried about
the *health of the state* in
financial collapse

we are worried about
our families and friends
in this uncertain future

we are worried about
our own comfort/survival
(unsustainable = stops!)

we are worried about

a local or global

USSR Argentina Iraq

Afghanistan Detroit

or worse



back to first principles

threat modeling

war is the fundamental
risk that governments
are prepared to fight

not all risks look like *war*
how can we model risks?

describing risks

scope

severity

complexity

source

odds

scope

individual to
the whole world

severity

inconvenience
to destruction

complexity

point risks

system risks

source

humans*

other species

physical systems

* individual, group, organization or state

odds

impossible to
certain

examples

spilled milk

scope

kitchen table

severity

no use crying over it

complexity

point risk

source

humans

odds

uncommon

crime

scope

individuals

severity

theft to murder

complexity

point risk

source

humans

odds

uncommon

asteroid strike

scope

national to global

severity

destruction

complexity

point risk

source

physics

odds

low

plague

scope

human race

severity

substantial mortality

complexity

systems risk

source

other species

odds

common in the past

climate change

scope

global

severity

severe disruption

complexity

systems risk

source

humans

odds

ongoing

financial collapse

scope

global economy

severity

serious disruption

complexity

systems risk

source

humans

odds

common in the past

financial collapse

scope

global economy

severity

serious disruption

complexity

systems risk

source

humans

odds

nearly happened in 2008

financial collapse

scope

global economy

severity

serious disruption

complexity

systems risk

source

humans

odds

ongoing?

climate change and
financial collapse share
deep complexity and
global scope

worse both are driven
by a fundamental human
distaste for limits and
failed governance

we are our own
and the planet's
worst enemies



*so are we ready
to start planning?*

provenance

“State in a Box” project
on Iraq for US DOD*

*never used

objective figure out how
to keep a country
running in a war zone

critical tools

rapidly enable

complex cooperation

*“unity of effort
without
unity of command”*

bit of overkill for peak oil?

reaction oriented not
threat oriented model

goal keep the systems
that keep you alive
running & transforming

step 1

identify the systems
that keep you alive

step 2

identify the threats to
those systems

step 3

avoid threats and
mitigate risks to systems

step 4

repeat until your area of
concern is safe enough

problem 1: isolation

you control very little of
what you need to live

problem 2: competition
systems are centralized,
efficient, cheap, brittle

problem 3: permission

status quo is mandated

by same orgs failing to

provide safe systems

problem 4: priority

guns or butter? cf

solar panels or hospitals?

methodology

find interdependencies
in the global system and
harden all vital links

VUCA **complex**
(volatile, uncertain,
contingency
complex, uncertain,
ambiguous)
complex **wicked**
operations **problem**

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this is insoluble
it's too complicated
we need a map



Simple Critical Infrastructure Maps to the rescue

first, let's identify the actors

individuals

groups

organizations

states

these are our teams

Simple Critical
Infrastructure Maps
asks a simple question:

*what does each actor need
to survive?*

individual survival

too hot

too cold

hunger

thirst

illness

injury

groups

communications

transportation

workspace

resource control

organizations

shared map

shared plan

shared succession

states

effective organizations

list of citizens

map of territories

jurisdiction

international recognition

18 points to ensure the
basic survival of all
concerned

SCIM keeps people alive
until you have a strategy

it is triage to buy time

why is it so simple from
this angle?

*very little of our energy
goes into basic survival*

SCIM constrains the
problem and presents
*a manageable set of
system interdependencies*

keep everything alive

constrain the problem



*we still have to deal with
interdependencies*

aiiac*

*agro-industrial auto-catalysis
a big idea in a little word

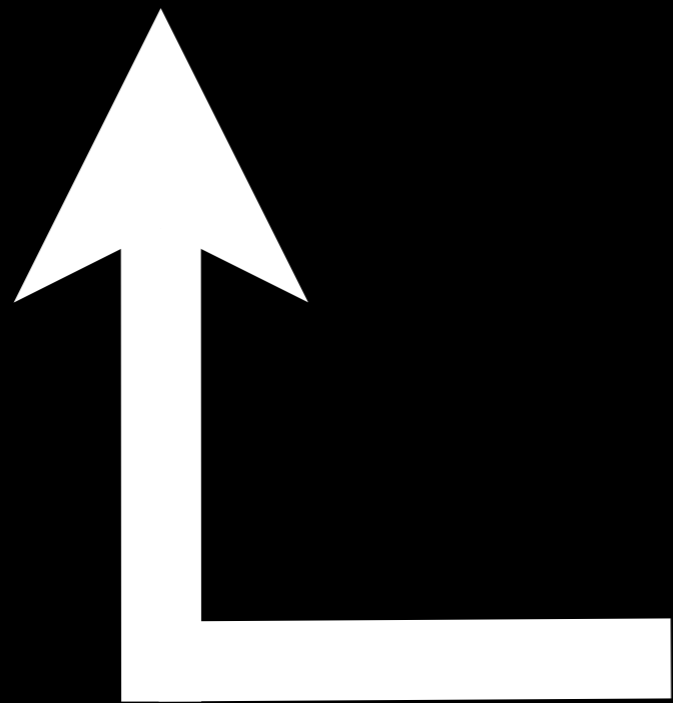
[eye-ack]

aiac is the
technical “biosphere”
which supports our lives

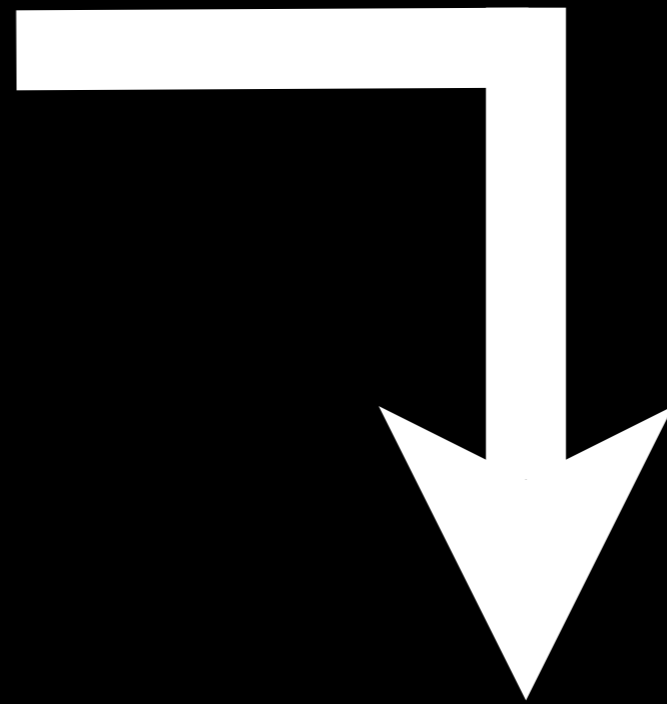
aiac is like a fire,
autocatalytic
feeding on itself

cheap food, energy & tools
enable us to make more
cheap food, energy & tools
enable us to make more
cheap food, energy & tools
enable us to make more
cheap food, energy & tools

cheap food
cheap energy
cheap tools



cheap food
cheap energy
cheap tools



aiac has two small issues

extractive on one end

polluting on the other

without it we starve

with it we poison the world

aiac is mankind's
imitation of nature
out of control

“collapse of civilization”
actually means
“death of aiac”

it is the fire that has
burned since the start of
farming *going out*

we must repair and
improve aiac but we
must also *survive* it

closed-loop industrial
ecologies and renewable
energy can fix our aiac

but that could take
decades, and we are
running out of *time*



back to the near term

Survivalism

individual and group

short term

stockpile-oriented

Green Wizards

rapid roll-out of
individual and group
systems from skill banks

Transition Towns

group & org strategy
for maintaining supply
chains & infrastructure

Dark Mountain

managing expectation by
imagination to make
room for adaptation

each group addresses a
different overlapping
part of the *whole system*

Integrated Needs Analysis



individual	household	village / neighborhood	town / city / municipality	region	country	world
------------	-----------	------------------------	----------------------------	--------	---------	-------

- injury
- illness
- thirst
- hunger
- too cold
- too hot

resilience gap

			medical / police		army	
	toilets	sewer system	sewage plants			
	water supply	water mains	water processing			
		food supply chain	retailer logistics	bulk logistics	imports	intl markets
	heating	local grid	power plants	national grid	fuel imports	intl markets
	cooling					
	housing					

- transport
- space
- communications
- resource control

				fuel supply		ports / airports	travel / embargos
				diesel generators			
	electricity	cell towers, cables	local hubs	regional hubs	fiber lines		undersea cables satcom
	sharing	administration	rule of law	civil	jurisdiction		

SCIM:INAM for a typical developed world nation

- shared succession
- shared plan
- shared map

			rule of law	corporate	jurisdiction	
			cohesion			
			consensus		objective facts ("legal facts")	

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

consent of governed						legitimacy of state
staff	space, transport, communications, resource control - succession, plan, map					
					identity files	
hexayurt@gmail.com			land registries		sovereign lands	
					legal processes	

what is critical is the
interdependencies and
areas of cooperation

Integrated Needs Analysis



individual	household	village / neighborhood	town / city / municipality	region	country	world
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Integrated Needs Analysis

SCIM

survivalists

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	housing					

- transport
- space
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Integrated Needs Analysis



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survivalists

Green Wizards

Transition Towns

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- too hot

- transport
- space
- communications
- resource control

- shared succession
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- shared map

- international recognition
- effective institutions
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- jurisdiction

housing

fuel supply

diesel generators

electricity

cell towers, cables

local hubs

regional hubs

fiber lines

undersea cables
satcom

sharing

administration

rule of law

civil

jurisdiction

SCIM:INAM for a typical developed world nation

rule of law

corporate

jurisdiction

cohesion

consensus

objective facts
("legal facts")

consent of governed

legitimacy of state

staff

space, transport, communications, resource control - succession, plan, map

hexayurt@gmail.com

land registries

identity files

sovereign lands

legal processes

Integrated Needs Analysis



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survivalists

Green Wizards

Transition Towns

open farm tech

- transport
- space
- communications
- resource control

housing

electricity

sharing

SCIM:INAM for a typical developed world nation

- shared succession
- shared plan
- shared map

fuel supply

diesel generators

local hubs

regional hubs

rule of law

civil

rule of law

corporate

cohesion

consensus

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

consent of governed

staff

hexayurt@gmail.com

space, transport, communications, resource control - succession, plan, map

land registries

bulk logistics

national grid

imports

fuel imports

not shown

power company

air/ports/harbors

ports / airports

fiber lines

jurisdiction

jurisdiction

jurisdiction

jurisdiction

jurisdiction

objective facts

("legal facts")

intl markets

intl markets

travel / embargos

undersea cables

satcom

legitimacy of state

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Green Wizards

Transition Towns

hexayurt

open farm tech

- transport
- space
- communications
- resource control

- housing
- electricity
- sharing

fuel supply

diesel generators

- local hubs
- rule of law

- regional hubs
- civil

- not shown
- power company
- air/ports/harbors

ports / airports

- fiber lines
- jurisdiction

intl markets

intl markets

travel / embargos

undersea cables
satcom

- shared succession
- shared plan
- shared map

SCIM:INAM for a typical developed world nation

- rule of law
- cohesion
- consensus

corporate

- jurisdiction
- objective facts ("legal facts")

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

consent of governed

staff space, transport, communications, resource control - succession, plan, map

hexayurt@gmail.com

land registries

- identity files
- sovereign lands
- legal processes

legitimacy of state

Integrated Needs Analysis

SCIM

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survivalists

Green Wizards

Transition Towns

hexayurt

open farm tech

riversimple

- transport
- space
- communications
- resource control

- shared succession
- shared plan
- shared map

SCIM:INAM for a typical developed world nation

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

consent of governed

staff

space, transport, communications, resource control - succession, plan, map

hexayurt@gmail.com

land registries

identity files

sovereign lands

legal processes

legitimacy of state

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fuel imports

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not shown

power company

air/ports/harbors

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hexayurt

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- intl markets
- not shown
- power company
- air/ports/harbors
- ports / airports
- travel / embargos
- diesel generators
- local hubs
- regional hubs
- fiber lines
- undersea cables
- satcom
- rule of law
- civil
- jurisdiction

- shared succession
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- shared map

SCIM:INAM for a typical developed world nation

- rule of law
- cohesion
- consensus

Dark Mountain

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

- consent of governed
- staff
- space, transport, communications, resource control - succession, plan, map
- hexayurt@gmail.com
- land registries
- identity files
- sovereign lands
- legal processes
- legitimacy of state

Integrated Needs Analysis

SCIM

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survivalists

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Transition Towns

hexayurt

open farm tech

riversimple

- transport
- space
- communications
- resource control

- housing
- electricity
- sharing

bulk logistics	imports	intl markets
national grid	fuel imports	intl markets
not shown		
power company		
air/ports/harbors		
ports / airports	travel / embargos	
diesel generators	local hubs	regional hubs
rule of law	civil	jurisdiction
		fiber lines
		undersea cables
		satcom

SCIM:INAM for a typical developed world nation

- shared succession
- shared plan
- shared map

- rule of law
- cohesion
- consensus

Dark Mountain

- international recognition
- effective institutions
- citizens list
- territory map
- jurisdiction

- consent of governed
- staff
- space, transport, communications, resource control - su

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land registries

seasteading

legal processes

legitimacy of state

detailed regional scim
maps can highlight how
people can work
together and share

SCIM highlights two
critical areas:

grid power in cold areas

medical supply chains

Integrated Needs Analysis

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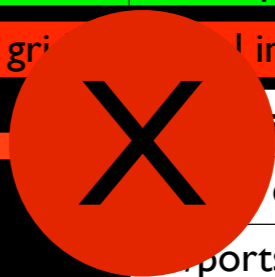
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med supply

cold katrina



medical / police	army					
toilets	sewer system	sewage plants				
water supply	water mains	water processing				

food supply chain	retailer logistics	bulk logistics	imports	intl markets
local grid	power plants	national grid	imports	intl markets

shown	company	ports/harbors		
-------	---------	---------------	--	--

fuel supply		ports / airports	travel / embargos
-------------	--	------------------	-------------------

electricity	cell towers, cables	local hubs	regional hubs	fiber lines	undersea cables
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SCIM:INAM for a typical developed world nation

rule of law	corporate	jurisdiction
cohesion		
consensus		objective facts ("legal facts")

consent of governed		legitimacy of state
---------------------	--	---------------------

staff space, transport, communications, resource control - succession, plan, map

hexayurt@gmail.com	land registries	identity files
		sovereign lands
		legal processes

scim bridges the gap
between *threat* and
response groups

using mapping tools
groups can reduce
duplication of effort

perhaps we can even
start thinking together
about the long term



in a *point crisis*

government resources

flow from all sides

in a *point crisis*

government resources

flow from all sides

in a *systemic crisis*
government resources
only reach worst cases

if you have government
support, you must be in
big trouble!

managing without govt
support is key to
systemic crisis response

effective mapping of
capacity is key to building
local self-reliance

swadeshi

we may be in for a
rough few years
GOOD LUCK

Vinay Gupta @ The Future We Deserve .com

tech fixes

emergency food reserve

1.3 bn cattle globally

500 person-days each

10 weeks food reserve

far more in US/Europe

how to transport & eat

satellite communications

relatively cheap (\$5000)

voice/data wifi BGAN

all orgs should have this

servers w. inet backup?

user apps on spare boxes

pharmaceutical stockpiling

where in the supply chain?

individuals usually do not

local pharmacy level?

subsidy for stockpile costs

local manufacture

Nubian tetracycline beer?

population resettlement

10m+ in too-cold risk areas

grid fail = cold katrina

food supply chain fail means

resettling on ag land

emergency permaculture

hexayurt shelter + utilities



hexayurt shelter



burning man 2010

hexayurt shelter





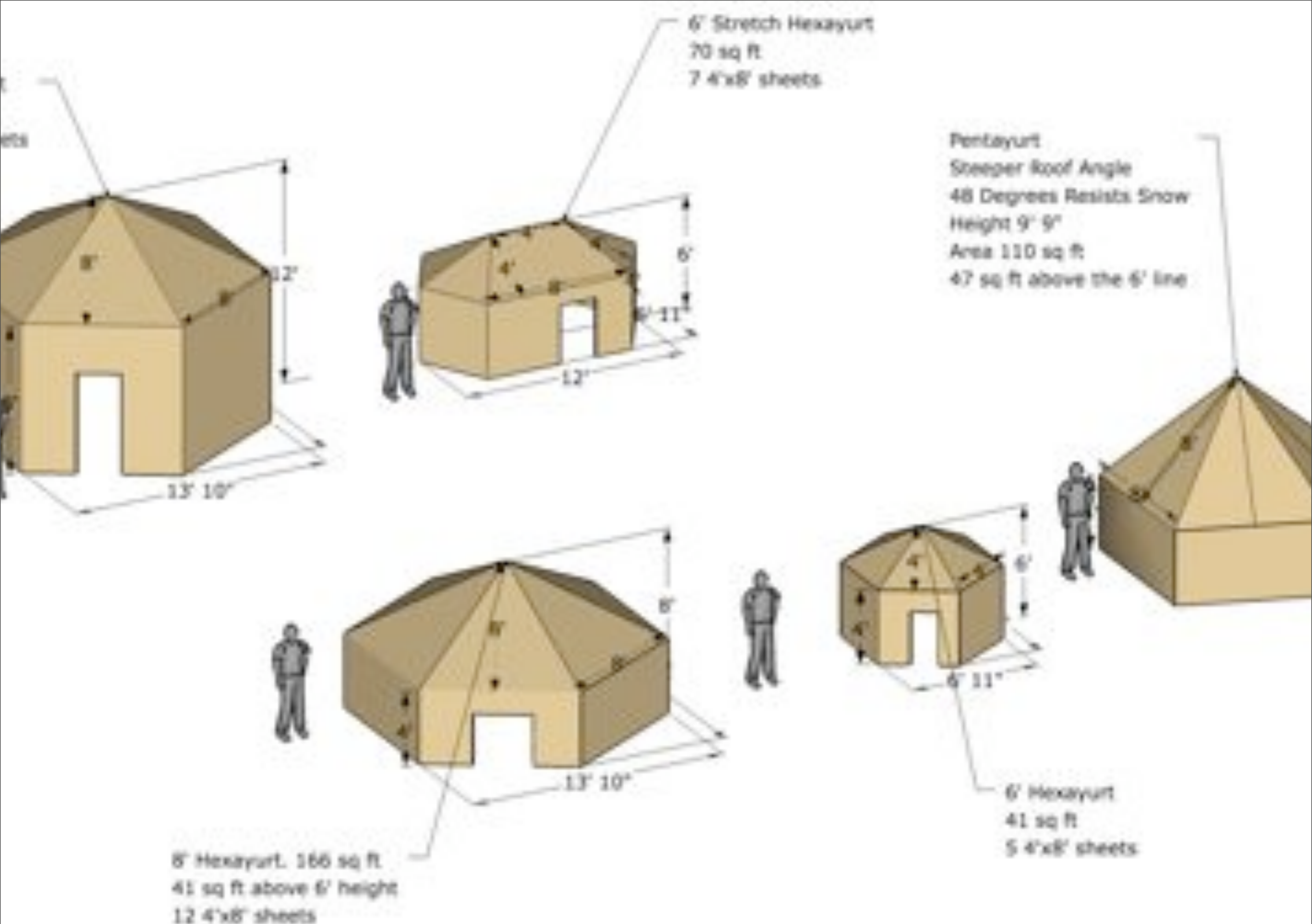
burning man 2010

wood hexayurt (haiti)



grassroots united





6' Stretch Hexayurt
 70 sq ft
 7 4'x8' sheets

Pentayurt
 Steeper Roof Angle
 48 Degrees Resists Snow
 Height 9' 9"
 Area 110 sq ft
 47 sq ft above the 6' line

6' Hexayurt. 166 sq ft
 41 sq ft above 6' height
 12 4'x8' sheets

6' Hexayurt
 41 sq ft
 5 4'x8' sheets

resources

“dealing in security”

“how to reboot civilization”

“the living city - london”

“hexayurt project”

<http://hexayurt.com/plan>



The
Future
We
Deserve

collaborative futures book
seeking submissions!