Rotary International and IEEE Smart Village

STANFORD IDEAL VILLAGE CONFERENCE SEPT 30, 2021

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Senior Vice President - IEEE Smart Village

"How Does ISVX Scale?"

- Partner with Rotary International.

- Produce, Process and Package Products close to the farms.

- Personalize Global Transactions.

- Use renewable energy for farming, processing and transportation.

- Use profits from product sales to improve infrastructure.

- Create wealth through software and AI.

- Recruit the youth of Global South to start, own and operate Village and Farm Businesses.

Rotary Focus Areas

Supported By

IEEE Smart Village Technologies

Promoting peace

Providing clean water, sanitation, and hygiene

Saving mothers and children

Supporting education
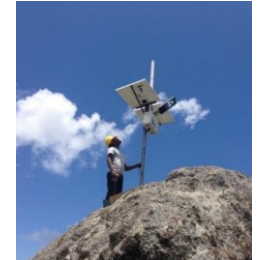
Fighting disease

Growing local economies

Environment

Reliable Electricity

Telecomms & Internet

Computers

Electric Transportation

AI – Virtual Instructors

IEEE smart village
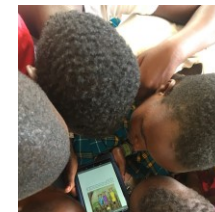
IEEE

Rotary E Club Silicon Valley Smart Village (RSVSV)

- Mission: The bridge so IEEE and Rotary International can work together to benefit humanity.

- Vision: A world where all people have access to electricity, internet, water, sanitation, health care, housing, transportation, education, jobs and entrepreneurship.

Rotary District 5170

- 61 Rotary Clubs in San Francisco Bay Area.

- From Oakland down to San Juan Bautista.

- From Watsonville in west to Livermore in east.

- Includes heart of Silicon Valley and neighbors: Palo Alto, Mountain View, Los Altos, Los Gates, Sunnyvale, San Jose, Cupertino, Oakland.

- Funds raised in 2020 ~ $8M

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Global Telehealth Network Sites Uganda and Kenya
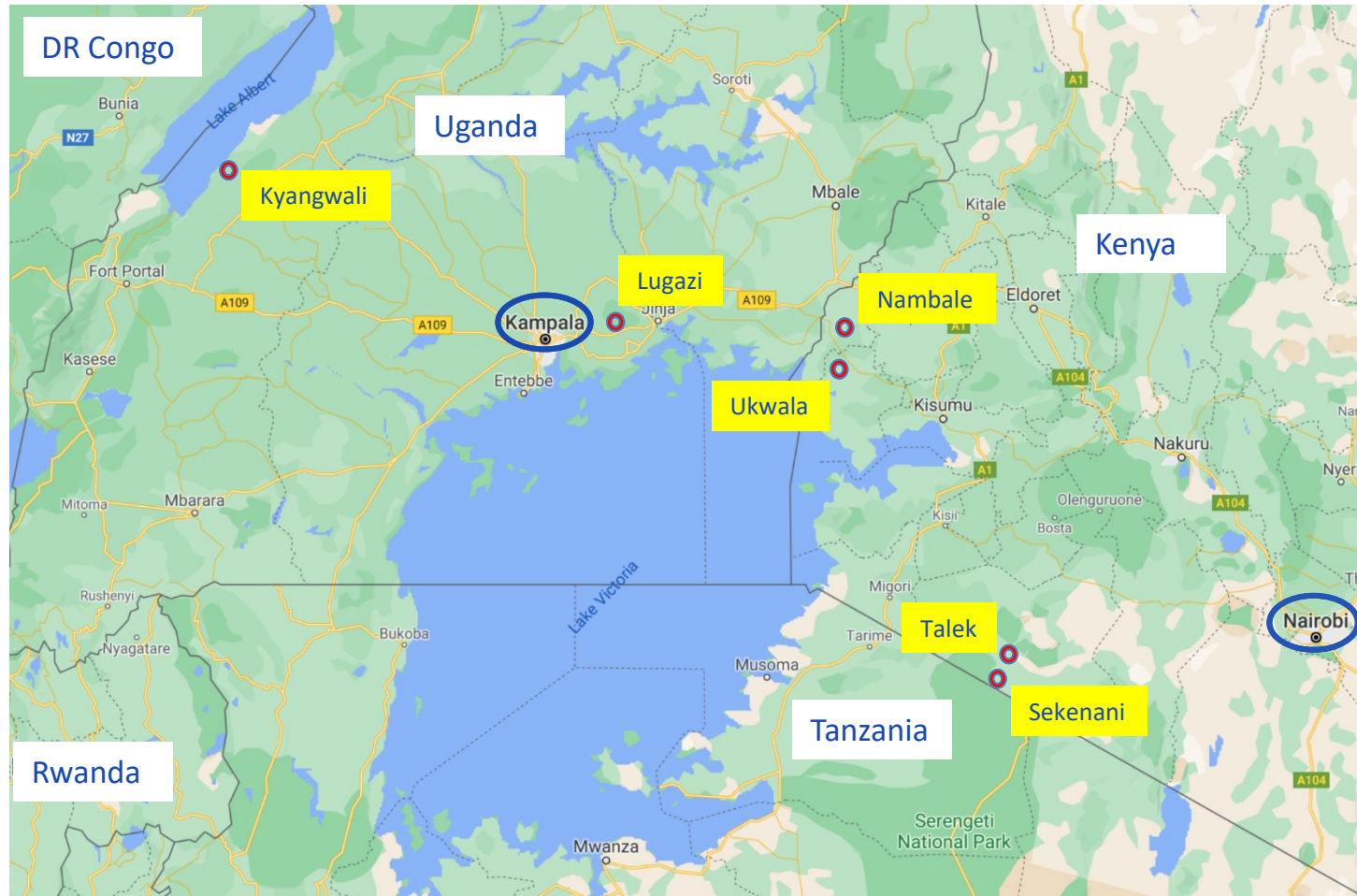
Mobile Medical Clinic

3 kW Front – 7.5 kW Rear Motors
4 x 4 dual motor
72V, 300 AH, 21.6 kWh LiFePo battery
25 mph 4x4: 50 mph RWD
100 ~ 135 mile range
700 Lbs payload, 3 ton towing
7 ~ 9 hour charging at 220V
$15,000 Tianjin, Shenzhen

The Story of Global South

- Global South has huge amounts of natural resources.
- It was divided by colonial powers into 170 plus countries each with limited negotiating power.
- Laborers in Global South survive on bare subsistence wages and receive a small portion of the price paid by the end user.
  - 3 cents on $3 cup of coffee.
- Villagers have no electricity, no books, no teachers, no water, no toilets, no phone, no internet, no roads, no jobs, no tractors, no trucks, no irrigation.
- Large infrastructure projects are often completed by Multi-national corporations and governments without improving lives of villagers.
- This leads to a dual economy of very poor and middle – upper class.

IEEE smart village™

◆IEEE

System of Systems Approach

Minimize Multidimensional Poverty Index
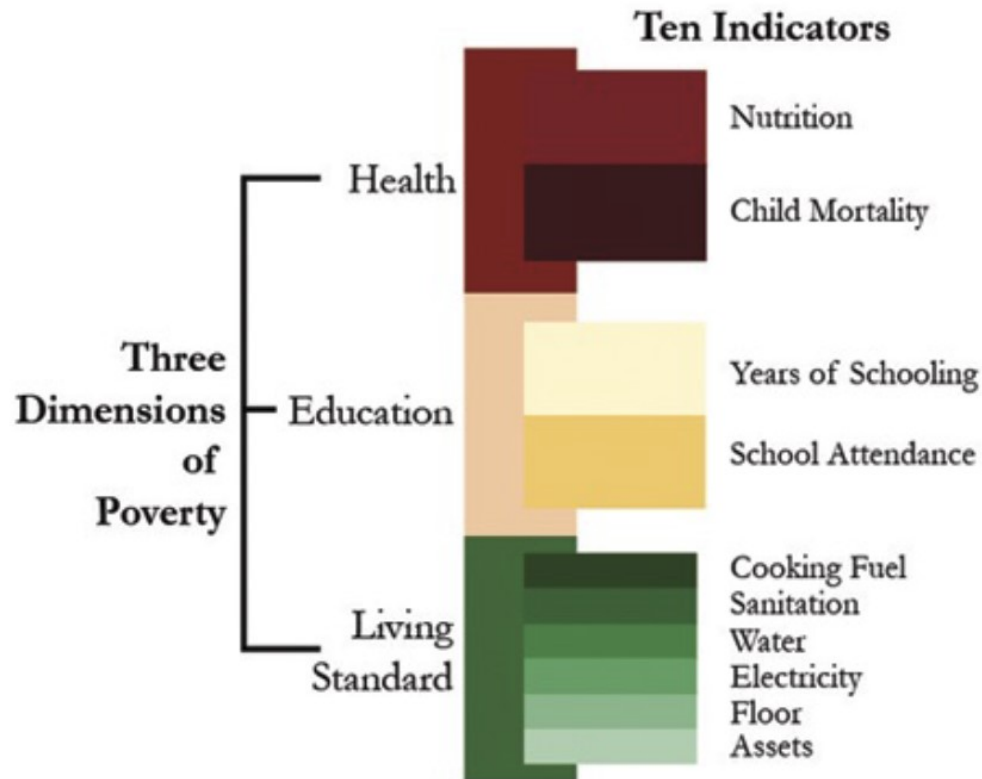
Dr. Sabina Alkire

Success Rates
of Businesses in South Africa

- Over 90% of independent businesses fail in the first five years.

- According to the recent Franchise Association of South Africa (FASA) survey, the failure rate of **franchising is less than 10%**.

- ISV and RSVSV are building "Global Hubs of Excellence" for a range of businesses.

- Metcalf's law: "Power of Network increases as square of the number of participants"

LEAN Business Canvas

Smart Village Framework of Hubs

IEEE	IEEE SMART VILLAGE	ROTARY
HUMANITY FOCUS AREAS: ELECTRICITY – PHONES - E MOBILITY – INTERNET – AI – CLOUD – COMPUTERS	**SMART VILLAGE ENTREPRENEUERS**	**HUMANITY FOCUS AREAS:** HEALTH CARE – WATER – SANITATION – HYGIENE – PEACE – JOBS - ENVIRONMENT
	SMART VILLAGE VOLUNTEERS	
MEMBER SKILLS: TECHNOLOGY PRODUCT RESEARCH, DESIGN, DEVELOPMENT, IMPLEMENTATION, TESTING, SUPPORT	SMART VILLAGE MANAGEMENT COMMITTEE	**MEMBER SKILLS:** BUSINESS, FINANCE, LEGAL, ACCOUNTING, MARKETING, SALES, LOGISTICS, PERSONNEL
	ROTARY E CLUB	
	SMART VILLAGE GOVERNING BOARD	

Smart Village Businesses and Services

- Health care – Global Telehealth Network, Solar Suitcase, CPAP for COVID, Oxygen Plant, E-Mobile Clinic, NoviGuide for birthing.

- Internet access and IT training.

- Gemstone cutting and polishing

- Mini-grid design, development, construction, operation, maintenance, finance.

- Portable Battery Kits

- Refrigeration as a service.

- Handicrafts.

- Livestock – dairy, pigs, sheep, goats, fish, chickens

- Fruits and Vegetables - mushrooms, avocados, mangoes, tomatoes, cassava.

- Construction – brick making – school and housing construction.

- Safe water - boreholes, rainwater harvesting

- Tourism and home stays.

- Electric trucks, tractors, tuk tuks, boats.

Smart Village Products and Services

Product / Service	Billions	Product / Service	Billions
Food and Groceries	$11,700	Fitness Mind & Body	$595
Health Care	$8,452	Jewellery	$348
Residential Home Construction	$6,800	Truck Market	$218
Freight Trucking Service	$6,252	Fish and Seafood	$207
Electric Utilities	$4,516	Call Centers	$200
Car & Automobile Sales	$3,978	Chocolate	$161
Commercial Real Estate	$3,167	Handbags	$52
Auto Parts & Accessories Manufacturing	$2,500	Arts and Crafts	$40
Tourism	$1,541	Vocational Training	$37
Personal Care, Beauty, Anti-Aging	$1,083	Software Development	$37
Dairy Products	$719	Mini Grids - Low Income Customers	$22
Healthy eating, nutrition, weight loss	$702	Honey	$9
Wellness Tourism	$639	Cassava	$5

Create finished products in villages. Sell more directly to consumers

WORLD GDP = $89,000 Billion

Infrastructure Needs

Medical Clinic

- Electricity
- Pure Water
- Internet
- Toilets
- Transportation
- Computers
- Clean rooms
- Clean dust free air
- Compressors
- Uniforms

Honey Processing House

- Electricity
- Clean Water
- Internet
- Toilets
- Transportation
- Computers
- Clean rooms
- Clean dust free air
- Compressors
- Uniforms

Large Corporate Business Model	IEEE - Rotary Smart Village Business Model
Centralized Processing	Distributed Processing
Large Scale Processing	Small Scale Processing
Multi-national corporations	SME businesses and cooperatives
Anonymous Suppliers	Known Suppliers
Carbon Intensive	Carbon Free
Inequitable Reward Structures	Equitable Rewards Structures
Impersonal Branding	High Impact Personal Branding
No stories except possible exploitation	Every product sale has a story
Workers get 2% of retail price	Workers get 50% of retail price
No role for family owned businesses	Family owned businesses prosper
Workers forced to go to cities	Workers can stay in villages

Made in Global South Advantages

- Dedicated, skilled, motivated workers at $5 per day.
- Dedicated trained, degreed, professional managers at $10,000 per year.
- Sharing of best practices across the globe at the speed of internet.
- Unique understanding of village problems and opportunities.
- Pro-bono Directors, Engineering, Marketing, Finance, Legal advisors.
- Ability to reach local, national, international buyers
- Trusted and reliable distribution partners across the Global South.

- Rotary and IEEE can provide access to 2,000,000 buyers.