

Entrepreneurship As Driver Of A 'Self-Organizing System Of Innovation': The Case Of NERICA In Benin

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1. Introduction

- **Effectiveness Of Method (Linear & Participatory) So Far Used For Dissemination Of Agric Techno In SSA Remains Questionable**
- **Study Tackles Issue From Innovation Systems Perspective Based On Dissemination Process Of New Technology: New Rice for Africa - NERICA**
- **NERICA – Family Of New Improved Rice Varieties From AfricaRice Adapted To African Agro-Ecology; Higher Yields; Quick Maturity; Resistance To High Rain Variability, Iron Toxicity; Higher Protein Content**
- **These Characteristics Make NERICA Attractive & Exciting Opportunity For Business & For Action**



2. Problem

- **Innovation Systems Is Presented As Powerful Approach That Addresses Shortcomings Related To Linear & Participatory Methods**
- **But, Literature Lacks Insights Into Understanding How Innovation Systems Emerge, Build Or Develop...**
- **Fundamental Question: Who builds Or Creates & Sustains An Innovation System & How? Remains Unanswered.**
- **This Frustrates Developing Countries Seeking To Adopt The Approach As Tool For Agricultural & general Economic & Social Development Policies & Settings...**



3. Hypothesis

- **If Entrepreneurship Rests On Innovations,**
- **Innovations Rely On Entrepreneurial Activities To Thrive Throughout An Economy**



4. Objective

- **This Study Explores NERICA-Based Innovation System In Benin**
- **It Describes: Interests, Motivations, Goals & Actions Of Economic Agents; Their Interplays That Lead To Transforming NERICA From Its State Of Seed To Its State Of Edible Rice**



5. Innovation System Concept

- **Temporary Or Permanent But Continuous Mechanism -- Economic Agents Find Their Interests & Objectives Woven & Converging Towards An Innovation Event**
- **To Exploit It, They Engage In Relationships To Generate, Adapt & Exchange All Sort Resources While Supported By Institutions & Policies.**
- **Quest For Additional Resources To Achieve Their Goals Leads Agents Into relations Through Which They Form A System & Become Its Components**



5. Innovation System Concept

- Economic Agents Engage In Relationships Depending On Perceived Benefits Or Mutual Interests. They Only Take Part In Innovation Events That Match With Their Objectives
- Entity Belongs To System Based On What It Can Provide To Or Receive From Other Components. Hence, Becoming A System Component Is A Challenge & Process
- It Is An Art Of Discovering & Dealing With New People Or Already Known People But With Focus On New Things



5. Entrepreneurship & Innovation

- Entrepreneurial venture Is Viewed As Embedded Power That Steers Institutions, Learning & Linkages
- Opportunities Do Not Emerge For The Entrepreneur. Entrepreneur Eagerly Hunts Events & Methodically Conceptualises Them As Opportunities & Marshals Resources Through Linkages To Exploit Them



5. Innovation Syst. & Entrepreneurship

- Finally, Entrepreneurial Endeavours Alert Other Actors, Create, Offer Them Opportunities & Propel Them Into The Innovation process**
- Combined Insight: Entrepreneurship Spurs Innovation Processes & Compel To The Creation Of An Innovation Enabling Environment While Giving Rise & Sustaining Innovation System**



6. Methodology

- Research design followed Case Study Method
- Fieldwork In 4 Important Rice Production Zones: 2007/08
- Interview Guide, Individual & Group Discussions
- Respondents: Framers, Farmer organizations, Extension Officers, Researchers, Gov. Officers, Enterprise & NGO Management Staff
- Focus on: Motivations & Interests, Sources of Resources & Interactions, Institutional & Policy Changes & Learning Mechanisms To Engage In NERICA Business Or to Support NERICA Business



7. Results

- **No Intervention & Supporting Program Or Project, But Entrepreneurial Venture Initiated The Process Leading To What We Called A Self-Organizing System Of Innovations**
- **In 2005, Local Media Reported Informally About AfricaRice In Benin, Highlighted The Wonders of NERICA**
- **Self-Motivated Economic Agents Deliberately Took Actions To Determine The Strength Of Claims Made For NERICA Varieties**
- **Trying To Marshal Resources To Exploit NERICA, They Entered Relationships With One Another and Other Organizations**



7. Results

- **Trying To Develop Non-Traditional Investment Opportunities, BRS Met With New Demands & Started Financing NERICA-Related Business**
- **TUNDE SA, Printing & Publishing Company, Was Becoming NERICA Production Hub: Setting-up Big Milling Industry To process 600,000 Tonnes of Edible NERICA per year. Then, Working With AfricaRice, INRAB, Extension Services, Diverse experts, farmers & Other Economic Agents**
- **BSS-SIPRI - Enterprise Specializing In NERICA Seed & Paddy Production; Paddy Processing & Marketing. BSS-SIPRI Is Concerned Exclusively With Biochemical- Free**



7. Results

- **NGO Songhai Taking Leadership In NERICA Seed Production Through RENAFERS**
- **NGO VECO & Project PADRO Were Being Compelled To Shift Focus To NERICA Based On Needs Of Farmers They support**
- **For Rent Seeking, To Adapt To Climate Change & To Find New Use For impoverishing lands, Farmers Were Getting Into NERICA Through Diverse Arrangements & Relations**
- **INRAB & Extension Services Are Being Propelled To Be More Proactive Towards Farming Community Getting Involved In NERICA**
- **Government Was Prompted to recruit About 2000 New Extension Agents**



8. Conclusion

- **Entrepreneurial Process Stimulates Dynamic Interactions Among Motivated Actors In Quest For Diverse Resources Under New Or Improved Institutional Framework**
- **Support To Agricultural Technology Dissemination Must Go Beyond Assistance To Poor Farmers & Put Much More Emphasis On Policies Or institutions That Inspire entrepreneurship**



8. Conclusion

- Indeed, Efforts & Focus On Enabling Innovation Through Research, Participation, Poor Farmer Empowerment & Partnerships, It Seems That The International Community Forgets That Enabling Innovation Is As Much To Do With Enabling Entrepreneurship
- Most Technologies Transform Into Innovations Through Business Mechanisms



Thank you! Merci!

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