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BRIEF 40

Communicating Crop Biotechnology: Stories from Stakeholders

Edited by
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Manager, Global Knowledge Center on Crop Biotechnology

No. 40 - 2009

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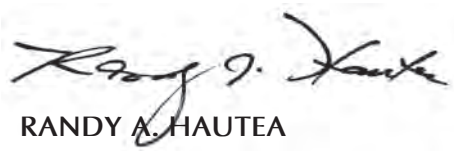
Preface

The attraction for storytelling is universal and pervasive – it appeals to all ages, cultures, and perspectives. Stories do not discriminate, rather they allow readers to get into the minds of other individuals or groups to better understand how they think, feel, and dream. In the process, readers are able to process the experiences of others and reconcile them with their own thoughts and feelings. Stories give readers new ideas and ways of viewing things, provide opportunities for synthesis and analysis, facilitate change in mind sets, and stimulate innovation or creativity. Narratives bring life to often nameless clients who are the reasons for what we do.

Stories or narratives are used as an effective communication technique in this Brief to humanize the different stakeholders of the International Service for the Acquisition of Agri-biotech Applications' (ISAAA) knowledge sharing network composed of the Global Knowledge Center on Crop Biotechnology (KC) and Biotechnology Information Centers (BICs). ISAAA is proud of this unique network that spans Asia, Africa, Europe, and Latin America, one that is believed to be the only one of its kind in the world today. It is the collective efforts of the network that bring about greater awareness and understanding of crop biotechnology across the regions of the world. Discussions about ISAAA's audiences are often mired in statistical numbers losing a certain connectedness and affinity with them. Individual narratives thus allow ISAAA to better know and understand its clients and determine how institutional impact is being realized if at all.

What makes this Brief unique is that this compendium of stories is authored by representatives of our network. The contributors interviewed different audiences from all walks of life and answered the questions: Who are our stakeholders? What do they think about science in general and crop biotechnology in particular? How have they benefited from ISAAA's knowledge sharing initiatives? How have these initiatives helped them to contribute to greater public awareness and understanding of the technology? What future is there for crop biotechnology? Articles showcased the people that the network touched and also provided gems of learnings from the collective stories of other cultures. After all, the stories are not just about people but also focus on the communication strategies and activities implemented to reach them.

More importantly however, the stories brought people together – writers and stakeholders, story tellers and specific audiences across cultures. Together they provide a clear picture of what is out there and allow us to empathize with and share experiences with one another. Hopefully, one's story will inspire another on the potentials and exciting field of science communication, and contribute to a greater realization that for all our efforts and time, impact is being made on those who need it most.



RANDY A. HAUTEA
Global Coordinator, ISAAA

Introduction

Crop biotechnology is one of several agricultural strategies to address problems of food and energy, poverty, and environmental degradation. This technological innovation has sparked worldwide interest and discussion.

Stakeholders or the so-called attentive publics are critically involved in framing the debate, shaping policy, influencing public opinion, and creating greater awareness and understanding of crop biotechnology. Together these stakeholders – farmers, media practitioners, policy makers, scientists, academics, religious leaders, industry sector representatives, students, and other partners, determine the direction and depth of the biotech debate, and ultimately the acceptance, adoption, and sustainability of technology. The International Service for the Acquisition of Agri-biotech Applications (ISAAA) facilitates knowledge sharing among these stakeholders to build a collective voice on crop biotechnology.

ISAAA is a not-for-profit international organization that shares the benefits of crop biotechnology to various stakeholders, particularly resource-poor farmers in developing countries, through knowledge sharing initiatives and the transfer and delivery of proprietary biotechnology applications.

To complement its technology transfer program, ISAAA has an information network to facilitate knowledge sharing initiatives between and among countries. This network is composed of the Global Knowledge Center on Crop Biotechnology (KC) and the Biotechnology Information Centers (BICs).

The KC was established in September 2000 in response to an urgent demand from senior policy makers in developing countries for an entity that would make authoritative information available to facilitate and support transparent decision-making process regarding crop biotechnology. Based at the ISAAA Southeast Asia Office in the Philippines, the KC has an overall facilitating role of providing services and resources to complement local initiatives by the BICs. With its global mandate, the KC critically scans global and regional developments and analyzes issues and concerns that affect developing countries. This information is transformed into prototype communication strategies that the BICs adapt for their clients' specific information needs. Specifically, its activities span global knowledge networking; information needs analysis and strategy design; information repository building; and information packaging.

The heart and soul of the KC is its growing network of BICs or country nodes in Africa, Asia, Europe, and Latin America. The BICs are at the forefront of responding to science-based information needs, and in promoting and advancing a broader public understanding of crop biotechnology in their respective countries.

How have stakeholders benefited from the communication initiatives of the network? Feedback generated from personal interviews, workshop questionnaires, electronic surveys, emails, and the like provide a variety of examples to demonstrate the ways by which the network has responded to stakeholder need for accurate, science-based information on crop biotechnology. Unfortunately, not many of these stories are documented or available in a form that others can vicariously learn from. Brief 40, entitled **Communicating Crop Biotechnology: Stories from Stakeholders** will attempt to answer this need.

The collective stories of the KC and the BICs attempt to capture and profile the network's various stakeholders and how they are affected by deliberate communication efforts. Stakeholders were interviewed and additional information was obtained through email correspondence and available write-ups or public documents. The stories of specific stakeholders are grouped together by work sector. Each story unfolds to show similarity and contrast of respondent's profiles and

insights. Background information on the respondents humanizes the real life characters.

Individual narratives have the power to transcend time, language and culture. They also have the unique power to share experiences, appeal to emotions, and have the capacity for empathy. Farmers from Burkina Faso are thousands of miles away from colleagues in Bangladesh, India, Indonesia, and the Philippines. Yet they have similar experiences, face common problems, and share a hope for themselves and their families. Academics and scientists as well as media practitioners from different geographical zones have their respective activities and concerns, but are linked by a commitment to help others learn about the technology. Other stakeholders from China, Egypt, Ghana, Kenya, Malaysia, Pakistan, Thailand, Uganda, and Vietnam have their unique stories to tell but interface to form a common voice. Lessons can be derived from these stories and retold across cultures, thus immersing readers in what psychologists refer to as "narrative transport."

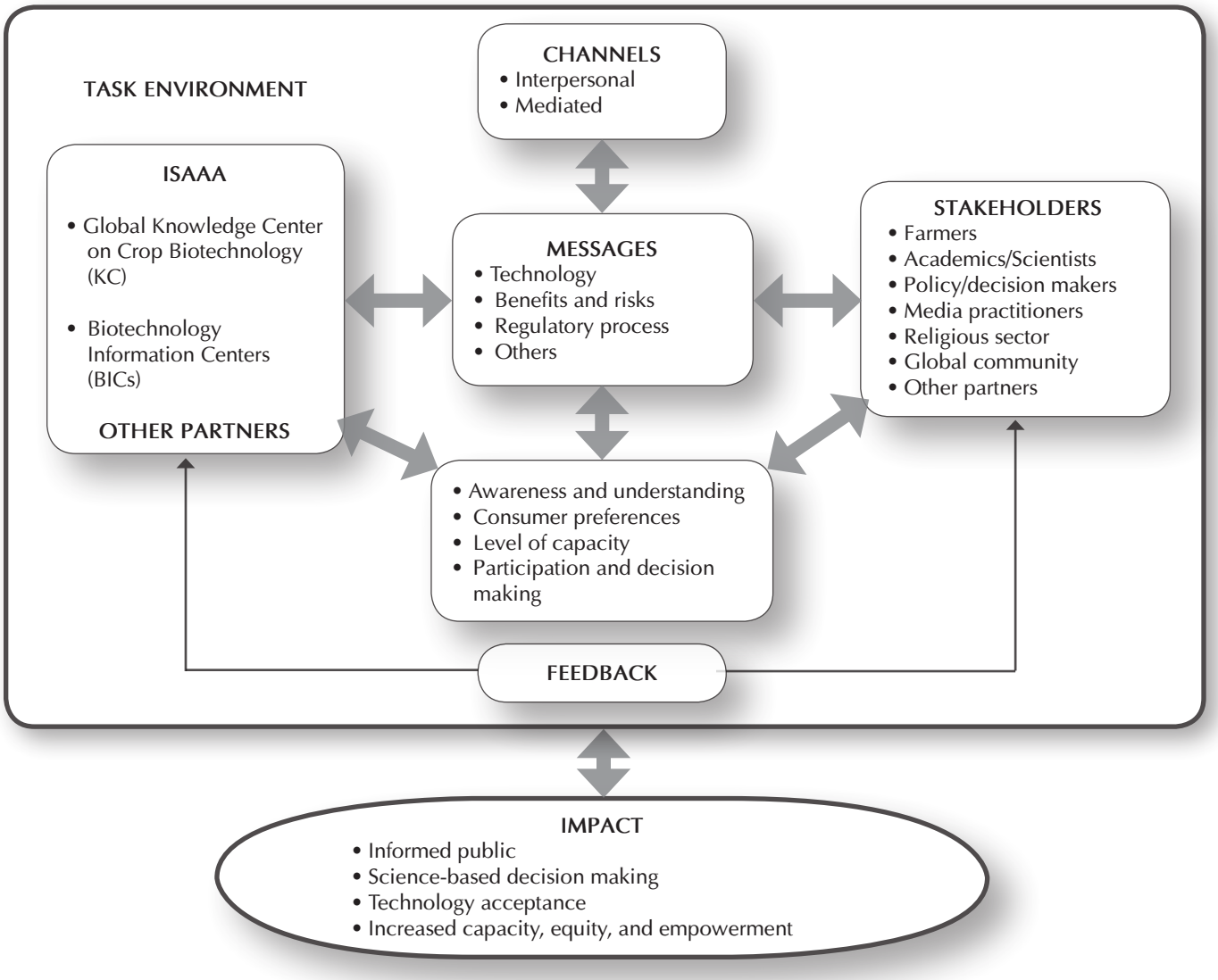


Figure 1. Science communication framework for crop biotechnology.

Introduction

Stakeholder stories are complemented by experience sharing on communication strategies that were implemented by the network. These give an idea of activities that specific stakeholders can participate in or use to better understand the technology.

These 49 stories by 19 authors from 14 countries are more than just a chronicle of events, insights and answers to specific guide questions. From these personal accounts unfold distinct patterns of experiences, culture, behavior, and perceptions that highlight their uniqueness yet converge to form a common thread to show the impact of efforts by ISAAA's global knowledge sharing network.

Science Communication Framework

The case studies enrich our understanding of how science communication works in crop biotechnology. The communication process is a complex one involving interfaces between a number of publics or stakeholders, different messages, a wide variety of communication channels, and varied outcomes. Adding to this complexity are intervening variables that affect the communication process.

Figure 1 is a schematic diagram of the science communication framework for crop biotechnology synthesized from inputs provided by the case studies. It illustrates how knowledge management and the tasks of identifying, creating, distributing and enabling adoption of information, insights and experiences (hence, knowledge) is done. Key information providers and different stakeholders exist in a task environment and are affected by variables such as the biotechnology landscape, culture, socio-economic/ political milieu, and communication environment. These conditions influence and put pressure on how people provide, react and respond to information on crop biotechnology. Experiences of farmers planting biotech crops, religious views about the technology, the political will of government to endorse its use, and the credibility of information sources, for example, all contribute to how stakeholders ultimately participate in the biotech debate. Limited or low awareness, lack of capacities, as well as inadequate support of policy making bodies and non-involvement of important actors in the generation to utilization of technology affect multi-stakeholder participation. Communication by itself can result in many possible barriers: stakeholders' preconceived ideas, personalized meanings, motivation and interests, communication skills, organizational climate, and complexity of channels.

Clear and concise key messages are framed by and with stakeholders. These messages are a synthesis of experiences and science-based information generated, validated, and shared through networking. Promoting an open and transparent debate about the potential risks and benefits of a new technology, for instance, guarantees responsible use and assures stakeholders of having a choice or say in its adoption. Messages are packaged through a strategic, appropriate and complementary combination of interpersonal and mediated channels based on best practices. The choice of and combination of communication strategies is determined by specific information requirements and needs.

Any deliberate communication act is rationalized by a specific or combination of objectives/ purposes. These intentions are: awareness and understanding, consumer preferences, level of capacity, and participation and decision making. Increased awareness leads to information updating; consumer preferences result in informed choices; level of capacity adds new skills and techniques; participation enhances deliberation and transparency of communication; and decision making leads to ability to influence policies. All these impact on the process through an informed public, science-based decision making, technology acceptance, and stakeholders with increased capability, equity, and empowerment. The feedback mechanism highlights the cyclical and synergistic process that makes science communication a dynamic and evolving activity.