# 18

# A New Vision for Leadership in Food Systems Research

BRIAN KEATING, RUBEN ECHEVERRIA, HOLGER MEINKE, DHANUSH DINESH, MARY SCHOLES, AND ANGELE TASSE

## Highlights

- Effective and authentic leadership is needed to deliver societal outcomes that respond to the urgent need to transform food systems under climate change.
- We need a new vision for leadership in the context of food systems research, which includes strategic goals of 'looking out', 'getting different', and 'focused experimentation'.
- Key cultural attributes as part of this new vision for leadership include diversity and inclusion; a 'service from science' ethos, and creativity, independence, and accountability.
- Implementing such strategic goals and cultural attributes must be complemented by systems leadership capacities.

## 18.1 Leadership in Theory

Much is written of how leadership and related management attributes and strategies can contribute to success in the business world. There is an extensive range of popular literature published by business consultants and leadership gurus, with a search of a well-known online bookshop revealing 2 537 titles on leadership in business and 391 titles specifically focused on leadership in research organisations and academia. Both strategy and culture are given attention in this voluminous literature.

In terms of strategy, creating a unique offering that is ahead of the forces of change is a consistent message; for instance, see Hamel and Prahalad (1994) on 'Getting Smaller, Getting Better and Getting Different' and Chan Kim and Mauborgne's (2015) work 'Blue Ocean Strategy'. Other prominent contributions include those on leadership styles, transforming good organisations to great ones, the practices of effective executives, the '80/20 principle', and the challenge of



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'herding cats' in academia (Collins, 2004; Drucker, 2011; Garrett & Davies, 2011, 2021; Goleman, 2000; Koch, 2017).

In terms of culture, the focus is on that complex mix of values, norms, and behaviours that get deeply ingrained in an organisation's DNA and shapes its abilities to adapt and innovate. The consistent message from this literature is that culture can't be simply dictated by edicts from on high nor can it be changed quickly. It can, however, evolve in response to a consistent set of drivers and interventions, including structures, incentives, procedures, and the modelling of desired behaviours from leaders.

Despite this extensive literature on leadership theory and practice, many end up in research leadership roles without deep reading or training in organisational leadership, deferring to intuition and the 'school of hard knocks' as their training ground. This chapter seeks to offer a new vision for leadership in food-system research, and guidance on applying these in the context of food-system transformation. It also sets out the characteristics of leaders who are best positioned to implement this guidance and drive transformation. As outlined in Chapter 14, three dimensions are critical in the successful transformation of innovation systems: designing and managing innovations with potential for transformative impact, the culture and structures of innovation organisations, and their engagement with the wider innovation ecosystem. All of these dimensions demand strong leadership to foster their development, to connect them to each other, and to help promote the delivery of innovation at scale.

## 18.2 Leadership Theory and the Changing Context for Leadership

Many have tried to define what being a good leader means. The Indo-European root of to lead, 'leith', means to step across a threshold, and to let go of whatever might limit stepping forward. Within the extensive leadership theory, some key characteristics have been identified, including developing new understandings, new skills, and new capabilities for individual and collective learning (Senge, 1995).

In particular, Senge and his team have identified three essential types of leaders who build learning organisations, roughly corresponding to three different organisational positions:

1. Local line leaders have the opportunity and autonomy to test and experiment at their organisational level, independent of the larger organisation they belong to. Line leaders play an essential role in the design and implementation of new learning processes and in their wider deployment.

Box 18.1
**Systems Analysis: A Necessary Step towards Effective Leadership**

Systems analysis is a broad term that can be found within multiple fields and many schools of thought. System dynamics is the understanding of the relationship between integrated system elements and how they impact each other's behaviour. Numerous different approaches exist for undertaking systems analyses, crossing many conceptual and disciplinary boundaries. Systemic analysis and systems dynamic modelling are, respectively, an approach and a tool with which to comprehend a system's structure across disciplines, by modelling complex social and ecological events, patterns, and processes, along with their key feedback loops, using systems thinking principles (Elsawah et al., 2017). Systems dynamics can help leaders to better represent, analyse, and understand systems, including those characterised by uncertainty.

2. Executive leaders stand as key mentors and thinking partners for line leaders. Such leaders have the bigger picture in mind and can help innovative local line leaders understand the sometimes complex broader processes, as well as communicate their ideas to engage those not yet involved.
3. Internal networkers or community builders have no positional authority but can navigate informal networks and understand how innovative practices naturally diffuse within organisations. They are key to finding those who are genuinely interested in bringing about change, and aid organisational experiments and the diffusion of new learning.

Rising global challenges over the past decades have challenged many aspects of our society and highlighted the need to rethink what constitutes good leadership. As the interconnected nature of societal and environmental challenges have become more evident, a growing number of people have understood that siloed strategies are no longer effective, and that a systemic approach aimed at deeper change is urgently needed. Tools for systems analysis can help leaders navigate interconnected systems (Box 18.1).

Such systemic challenges – like climate change, nature loss, growing poverty, and inequality – are to be addressed beyond the reach of existing organisations. They require unprecedented collaboration among different organisations and sectors at all levels, locally, regionally, and globally (see Chapter 17 for working across scales). To foster collective leadership within and across such varied organisations, a systems approach to leadership is valuable. In their book, *Leading from the Emerging Future*, Scharmer and Kaufer (2013) identify three key 'openings' necessary to transform systems: opening the mind, that is, challenging

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our assumptions; opening the heart, that is, accepting vulnerability and truly hearing one another; and opening the will, that is, letting go of pre-set ideas and goals, and understanding what is both needed and within reach. Building on these advances in leadership theory, in food-system research we propose a new vision for leadership that mobilises collective action to address common challenges through opening the mind, heart, and will.

## 18.3 Applying This New Vision for Leadership in Practice: Emerging Principles

To link theory with practice, we examined three prominent leadership efforts within agricultural research for development (Box 18.2). These efforts highlight certain common principles, which may be grouped into two broad headings. The first relates to strategy, that is, the key strategies for effective and authentic leadership, while the second relates to culture. The strategy includes a focus outwards from the organisation to identify and tap into opportunities, that is, a 'lookout strategy'. The second strategy principle relates to 'getting different', that is, ensuring that the organisation has a niche and a value proposition in place. In the case of the International Centre for Tropical Agriculture (CIAT), for example, the focus on science for impact allowed it to differentiate itself from other organisations. The final strategy principle relates to 'focused experimentation', meaning a strong focus on the identified value proposition but one complemented by giving researchers space to experiment and fail, advancing the mission of the organisation.

Culture change is also an important part of effective and authentic leadership, and for the successful implementation of the strategy, culture change is a prerequisite. Culture in the context of transformation in agricultural research for development (AR4D) organisations includes the complex mix of values, norms, and behaviours that are deeply ingrained in an organisation's DNA. A key principle that leaders need to apply to change organisational culture is ensuring diversity and inclusivity in the leadership team. For example, in the context of the CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS), bringing regional and gender diversity to the leadership team was a key element of success. A 'service from science' ethos – wherein the thinking shifts from an egocentric feeling of entitlement to support to one that centres the value science provides to others and when the support received depends on the perceived benefits provided to others – is key to culture change. This is evident in all three case studies that focused on fostering such an ethos. The organisational culture also needs to encourage creativity, entrepreneurship, and independence while also ensuring accountability, leading to a results-driven culture, and not a compliance culture.

Box 18.2

## Seeds of Change: Case Studies of Effective and Authentic Leadership in Practice in AR4D Organisations

### 18.2.1 Sustainable Agriculture Flagship in the Commonwealth Scientific and Industrial Research Organisation (CSIRO)

Around the year 2000, CSIRO – Australia's national science agency – underwent a transformation captured in the book 'Icon in Crisis: The Reinvention of CSIRO' (Sandland & Thompson, 2012). The transformation included the development of sectoral flagships including the sustainable agriculture flagship, which proved successful as a cohort of leaders was empowered to 'look outside' the organisation, secure resources, and ensure its scientific offerings were impactful and meeting expectations. Time and resources were committed to national and international thought leadership, contributing to, and sometimes leading, the dialogues and pursuing an 'open door' approach to others contributing. Staff members were embedded in key paths to impact in the relevant policy domains, such as, statutory advisory committees for carbon farming. Internally, explicit incentivisation of working together in multidisciplinary teams and a zero-tolerance approach to internal silo-building among senior leadership were key features. A soft and flexible approach to internal financial performance targets was taken, to encourage senior leaders to share business opportunities and/or pass them on to other groups where appropriate. Another key feature was a diverse set of external advisors who were supportive of the effort and could 'open doors' but also provide frank, fearless advice and critique.

### 18.2.2 The International Centre for Tropical Agriculture (CIAT) in a Changing CGIAR

CIAT is one of the founding centres of the CGIAR, formerly the Consultative Group on International Agricultural Research. When new leadership was put into place in 2008, challenges faced included achieving financial stability, building greater resilience within the organisation, and positioning the organisation at the leading edge of change. CIAT's approach to embracing change, including in the wider CGIAR system, proved successful. Looking out for opportunities combined with a culture of risk-taking was helpful. Raising resources both through wider CGIAR efforts and strengthening the fundraising capacity, combined with partnerships and communications were other success factors.

A particularly important partnering strategy was to re-engage with the Global South and particularly CIAT's host country, Colombia. This added an entirely new dimension to CIAT's work based on deep partnerships with public organisations, civil society, and the private sector in developing countries, as well as complementing the expansion of presence in Asia and Africa. A flat management structure combined with

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Box 18.2 (cont.)

competitive hiring helped to build a systems approach to research, with an impact-oriented vision. In fact, 'Science For Impact' was the slogan of CIAT in the 2010s.

### 18.2.3 The Experience of CCAFS

CCAFS was the first attempt by the CGIAR system to systematically address climate change and move away from a fragmented research agenda towards a programmatic, mission-oriented approach that emphasised achieving societal outcomes. During its decade-long operations, CCAFS's approach to leadership involved hiring science leaders for their abilities in coordination, business development, and outcome orientation. This was done both thematically as well as geographically, resulting in a matrix leadership. Thereafter, efforts focused on 'thought leadership' activities underpinned by 'looking out' for major opportunities. Over the life of CCAFS, there is evidence of continued efforts to 'stay different' from a typical CGIAR program. Examples include the level of flexibility accorded to staff, including in their location, host institution, disciplinary background, etc., with the common focus being on outcomes, all of which were found to be effective (Haman & Hertzum, 2019). This approach also allowed CCAFS to add new dimensions to the typical CGIAR research program such as climate services, participatory visioning with policymakers, climate finance with the mainstream financial community, and climate security with the peace and conflict community. Emphasis was placed on national, regional, and global policy, institutional pathways to impact, and ensuring diversity and inclusion within the leadership team. This fostered creativity, entrepreneurship, independence, and accountability to develop a high-performing culture. This culture focused on the delivery of outcomes as the key measure of success, which drove a cultural change towards impact pathways, partnerships, targeted capacity strengthening, and creative communications.

## 18.3 Guidance to Operationalise the Principles and Achieve This New Vision for Leadership

The principles below have been derived from case studies (Box 18.2) as well as from the leadership literature and can be applied in a changing agricultural research and development arena, characterised by an increasing focus on food-system transformation. Table 18.1 provides guidance on how these principles can be applied in AR4D organisations to catalyse food-system transformation. These principles must be complemented with efforts to lead collectively, both internally and externally, helping collective wisdom emerge over time by bringing new ways of thinking, acting, and being. Nurturing strong, trusting partnerships (Chapter 16) can help such collective leadership build a shared understanding of complex

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Table 18.1. *Operationalising principles for effective and authentic leadership in AR4D leaders to develop the new vision*

| Principle | Guidance to apply in a changing arena for agricultural research and development |
|---|---|
| Looking out | Focus on next users and partners, by recruiting leaders who serve as knowledge brokers and who focus on external partners and their knowledge needs.<br>Shift from 'Publish or Perish' to 'Partner or Perish' and focus on addressing societal needs through research efforts.<br>Rethink publishing not as an objective in itself but an essential tool to achieve concrete outcomes, ensuring it is rigorously reviewed, clearly communicated, and experimented/applied. |
| Getting different | Develop a unique selling proposition that is distinct but complementary to others in the arena, with a clear vision and mission to achieve impact. |
| Focused experimentation | Focus on delivering the mission of the organisation while also ensuring room to tap into emerging opportunities.<br>Push for and showcase a profound change in the appreciation and response to failures and embed it in the organisational culture. |
| Diversity and inclusion | Ensure diversity in, gender, nationalities, values, and perspectives on the leadership team. |
| Service from science ethos | Recruit staff who share the 'service from science' ethos to ensure mission orientation in the organisation's efforts. |
| Creativity, independence, and accountability | Help people identify their own strengths and develop leadership skills, while giving them the freedom to take their own steps. |

problems, and enable collaborating organisations to jointly develop solutions that are sometimes not evident to them individually. Collective leadership also means recognising the great diversity of organisational cultures and developing an ability to connect with them productively. However, such efforts require a deep culture change based on trust and an emphasis on listening to others to create self-sustaining change. For example, the culture should shift the conversation around failure in efforts beyond first-order causes and individual/organisational blame, to enable in-depth collective learning (Chapter 14).

Delivering these principles requires systems leaders. We have identified the characteristics of such leaders based on the seminal work of Senge et al. (2015) on systems leadership and the wider leadership literature, and embedded them in the three 'openings' identified by Scharmer and Kaufer (2013), while adapting them to the changing AR4D context (Figure 18.1).

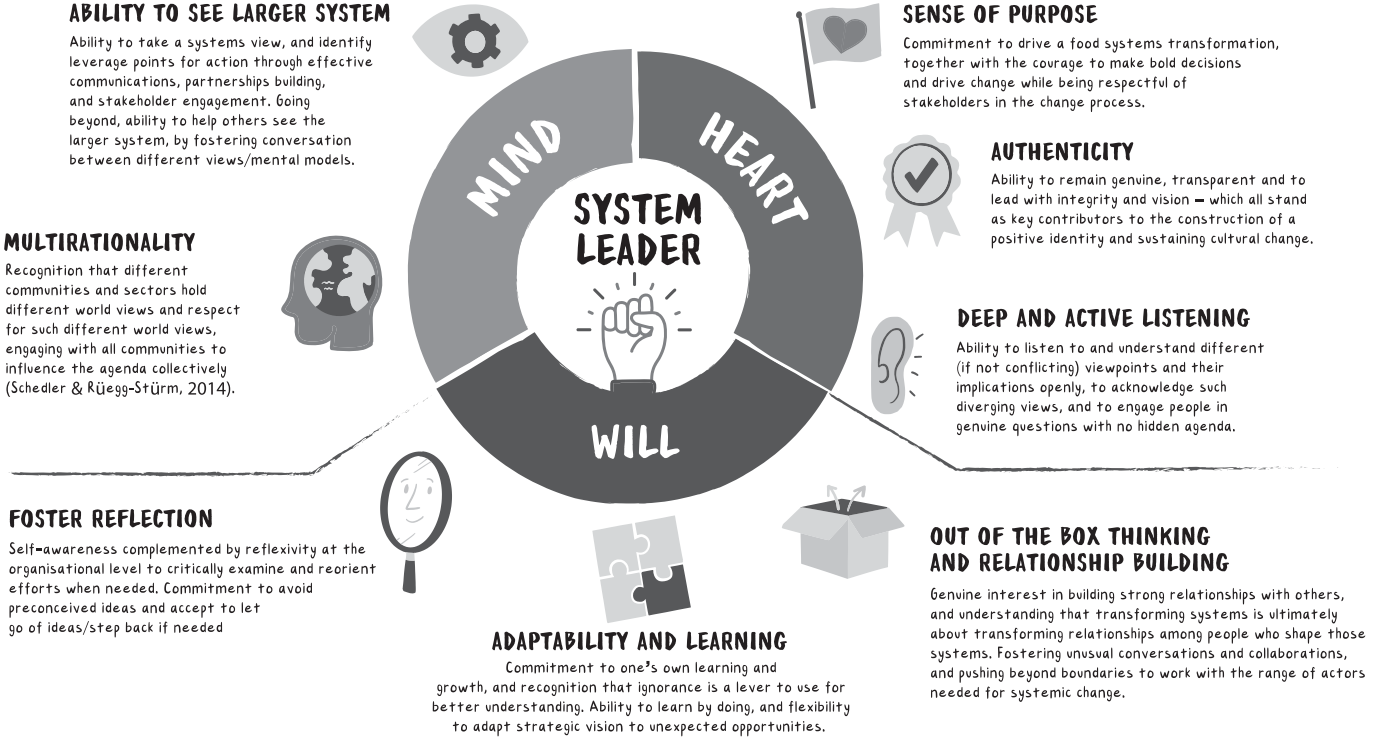


Figure 18.1 Characteristics of systems leaders in the AR4D context

## 18.4 Way Forward

We believe that the leadership lessons from the experiences and the literature discussed in this chapter will continue to be relevant as agricultural research for development evolves into food-system research and innovation. Skilful and adaptive leadership in the face of change will continue to be critical and should combine the characteristics of systems leaders, with the principles required to transform strategy and culture. AR4D organisations will face continuing challenges, but we feel these lessons distilled here will remain relevant in the face of the inevitable changes to come. Such efforts in AR4D organisations also need complementing with efforts within the university system, as sources of disciplinary excellence and the pathway to nurturing future capabilities.

To successfully contribute to the transformation of food systems, AR4D organisations must create a culture that embraces ongoing change and thrives on real partnerships. Without fostering such a culture change, such organisations risk neglecting short-term societal demands, losing relevance in the medium term, and jeopardising their very own existence in the long term.

## References

Chan Kim, W. & Mauborgne, R. (2015). *Blue ocean strategy, Expanded Edition: How to create uncontested market space and make the competition irrelevant*. Boston, MA: Harvard Business School Press.

Collins, J. C. (2004). *Good to great: Why some companies make the leap… and others don't*. London: Cornerstone/Random House Business Books.

Drucker, P. F. (2011). *The effective executive: The definitive guide to getting the right things done*. London: HarperCollins.

Elsawah, S., Pierce, S., Hamilton, S. et al. (2017). An overview of the system dynamics process for integrated modelling of socio-ecological systems: Lessons on good modelling practice from five case studies. *Environmental Modelling and Software*, 93, 127–145.

Garrett, G. & Davies, G. (2011). *Herding cats: Being advice to aspiring academic and research leaders*. Bridport: Triarchy Press.

(2021). *Herding cats revisited: Being more advice to aspiring academic and research leaders*. Bridport: Triarchy Press.

Goldman, D. (2000). Leadership that gets results. Harvard Business Review*, March–April*, R00204.

Haman, M. & Hertzum, M. (2019). Collaboration in a distributed research program: Islands of intensity in a sea of minimal interaction. *Journal of Documentation*, 75(2), 334–348.

Hamel, G. & Prahalad, C. K. (1994). *Competing for the future*. Boston, MA: Harvard Business School Press.

Koch, R. (2017). *The 80/20 principle: The secret of achieving more with less*. 20th ed. London: John Murray Press.

Sandland, R. & Thompson, G., (2012). *Icon in crisis: The reinvention of CSIRO*. Sydney: UNSW Press.

Scharmer, C. O. & Kaufer, K. (2013). *Leading from the emerging future: From ego-system to eco-system economies*. San Francisco: Berrett-Koehler Publishers.
Senge, P. (1995). *Leading learning organizations*. Cambridge, MA: MIT Center for Organizational Learning Research Monograph.
Senge, P., Hamilton, H. & Kania, J. (2015). The dawn of system leadership. *Stanford Social Innovation Review*, 13(1), 27–33.