Can the big learn from the small? Insights on policy dialogue and innovation capacity in SRI in India

Shambu Prasad Chebrolu, Xavier Institute of Management, Bhubaneswar
shambu@ximb.ac.in

Abstract

Meeting the requirements of food security of resource-poor farmers and consumers in an environmentally sustainable manner amidst complex challenges of climate change and large-scale farmer distress is a key challenge in agriculture today. The System of Rice Intensification (SRI) has emerged as an important agroecological innovation that has found acceptance by farmers in Asia despite initial resistance from rice researchers. The dynamic and complex spread of SRI in India has brought several surprises. Smaller states have been able to make rapid strides in upscaling SRI despite being seen as laggards in the earlier Green Revolution paradigm. Institutional rigidities, a refusal to learn from other actors, especially farmers and civil-society organisations (CSOs), and a focus on adoption rather than adaptation are reasons for failure in some of the bigger states. This paper analyses SRI’s evolution in India, highlighting the role of institutional innovation and learning in knowledge-intensive agricultural systems such as SRI. Understanding the features of this and incorporating them in public policy is a big challenge with the spread of SRI and requires novel institutional mechanisms. Experience with learning alliances, informal networks and policy dialogue that enable faster, interactive and more sustained innovation is shared. The paper suggests that future public-policy interventions in agriculture need to pro-actively shift from a techno-centric mindset to supporting these mechanisms that create a culture of innovation.

Keywords: institutional innovation, learning alliances, policy dialogue, networks, culture of innovation

Introduction

The year 2008 will perhaps be remembered for reminding the world about the complexity of agriculture and for heralding what is possibly a new paradigm in agriculture. Climate change, high energy prices, income growth, globalisation and urbanisation are transforming food consumption, production and markets. The recent India State Hunger Index reveals decreased per capita food availability even among Indian states with high economic growth. The Indian government has recently launched the National Food Security Mission (NFSM) and a submission on sustainable agriculture as part of the National Climate Change Mission is seeking to take up the challenges of increasing food production to meet national food security and yet doing so without depleting nature’s capital and also adapting to climate change.

Internationally, there is renewed interest in small-farmer agriculture and local food security. The report of the IAASTD (International Assessment of Agricultural Knowledge, Science and Technology for Development) released in April 2008, reflecting a growing consensus among scientists and many governments, has suggested a radical shift from the old paradigm of industrial energy-intensive agriculture to small-scale farmer agroecological methods. This view has been echoed in the ‘Manifesto on Climate Change and the Future of Food Security’, which suggests that the industrial agriculture economy is a negative economy and industrial food systems are more vulnerable to climate change.

Transforming agricultural systems that have depended on input-intensive agriculture to one that is knowledge-intensive, participatory and small-farmer focused is indeed a major challenge facing countries like India, where agriculture is still the single largest livelihood option. The calls for a paradigm shift are, as to be expected, met with resistance from the research community. Despite an unfavourable climate for change, one such system of agroecological innovation has found roots in several farms in diverse settings. SRI is seen by many small and marginal farmers as a tangible option that can help in meeting local food security. Understanding an innovation system such as SRI provides ideas not just for rice cultivation but also for possible interventions for climate-proofed agriculture.

The surprising spread of SRI in India
Few agricultural innovations have captured the imagination of so many farmers, CSOs, government departments, academics and researchers – both natural and social – as SRI has in recent years. SRI can be seen as a technique, a counter-intuitive set of six principles, which yields more from less in rice cultivation. Less seed and chemical inputs and less irrigation water (due to growing rice in non-flooded conditions) are used and yet the combination of practices of wider spacing, transplanting young seedlings, alternate wetting and drying, use of greater organic compost and regular weeding ends up giving much higher yields on farmers’ fields than conventional rice cultivation. SRI does not depend on improved varieties and can work for any variety that a farmer uses, thus enhancing choice for farmers.

As an innovation that had an unusual origin in Madagascar, it has spread to 36 countries across the globe in less than a decade after it went out of Africa for the first time in 1999. SRI is still looked at unfavourably by some rice researchers and has met with resistance and, at best, a grudging acceptance from the International Rice Research Institute (IRRI). Despite this, farmers have taken to SRI enthusiastically and have, in many cases, baffled scientists by showing how yields on farmers’ fields can be much higher than those conducted on the ‘dead’ soils of research laboratories, prompting a ‘land-to-lab’ transfer of technology.

The spread of SRI in India is dynamic, complex and unconventional. India has one of the world’s largest pools of agricultural scientists, yet the spread of SRI has been possible due to a combination of active involvement of CSOs and farmers who proved SRI in the field and just a handful of researchers who were willing to back their experiments and intuitions. Together, often in parallel, these actors have created a culture of innovation that has brought in other actors to participate actively in the SRI innovation system. In this process, there have been several surprises. Despite a poor representation and less than spectacular results to share at the first international SRI conference in China in 2002, India is in many ways leading the SRI movement today. Extension has led research, most notably in Andhra Pradesh (AP), one of the biggest producers of rice in the country. In many states, Departments of Irrigation, Rural Development, Women and Child Welfare have been more pro-active and successful in taking SRI forward, while the Department of Agriculture has been insular. Smaller states such as Tripura, Uttarakhand, Himachal Pradesh, Bihar, Orissa etc, that lost their competitive advantage in rice production following the Green Revolution that bypassed them, have been showing some of the highest potential in SRI. Small, marginal and tribal farmers, often illiterate, who have often been dismissed as non-progressive, have been leading SRI spread in different states.

SRI can be found in all the rice-growing states and agroclimatic zones of the country. A conservative estimate of the number of farmers practising SRI would be well above 250,000 in over 218 districts where rice is grown. This despite the fact that state policy has been slow to catch up with the SRI phenomenon. The National Food Security Mission (NFSM) is the only policy document that has mentioned SRI as a strategy for improving rice productivity and yet suffers from seeing this on par with other strategies such as hybrid rice and even has a mindless proposition for use of herbicides in this agroecological innovation. Allocations have not matched with the potential in NFSM and the scheme still has not capitalised on the existing knowledge of the large number of actors depending on state departments of agriculture alone.

That all of this has happened in such a short span of time with limited funding suggests a lot of rethinking on the way knowledge is conceptualised in agriculture on the field by farming communities in collaboration with CSOs, government agencies and research agencies, often in that order. The drivers of change have been varied in different states and have been characterised by actors combining in complex ways by being ‘strategically opportunistic’ and ‘open to surprise’. Recognising these features is essential both to appreciate the complexity of the innovation architecture and to plan for change.

SRI is an innovation that is knowledge-intensive in that, because it depends so little on external inputs but so much on understanding principles of plant-root-soil interactions and learning continuously from farmers and scientists who are still working out what ‘makes SRI tick’, it demands more from the ‘extension’ agent and his/her attitude to the farmer. Viewing farmers as passive agents in need of technological and other inputs has been the conventional paradigm, whereas SRI suggests that farmers, for that matter all actors in the system of innovation, need to be seen as adapters contributing to an ever-changing dynamic innovation system. I present below some unconventional and innovative ways by which SRI has spread in India and the implications this has for planning for change.
Experimentation, leadership and stagnation at centres of innovation: the makings of the SRI innovation system

A look at the spread of SRI in India suggests four phases of the SRI journey in the last decade. The phases are not necessarily distinct or watertight but, for convenience and analytical purposes, the characteristic features of the innovation system have been used to describe the phases. Rooting this unconventional innovation in Phase 1 from 1999–2003 has had the contribution of both research and non-research actors. Some civil-society actors chose to experiment with it almost as soon as they heard of it in 1999, though with limited success. The first phase saw a lot of experimentation and it was the pro-active role played by Dr Alapati Satyanarayana as Director of Extension in the state of Andhra Pradesh which gave Indian SRI a lot of visibility. SRI in Tamil Nadu (TN) continued to gather steam after the first trials at the agricultural university led by Dr T M Thiyagarajan. Governments of states experiencing drought conditions were keen on SRI, even though scientific evidence was scarce at that time and SRI was meeting with resistance internationally from research centres. Quietly though, there was a silent movement of acceptance and willingness amongst many organic farmers and networks to take SRI forward (see Shambu Prasad 2006, 2009).

By 2003–04, SRI was proven especially by research agencies as a distinct possibility for farmers. From a diversified set of experiments, this phase saw SRI having a lot of visibility in mass media, in part due to the International Year of Rice (2004) and the scientific controversies surrounding SRI, also termed as the ‘rice wars’. Indian results, notably the response by Satyanarayana in Nature, were and continue to be quoted often in debates on SRI. SRI was discussed nationally in a seminar organised by the International Water Management Institute (IWMI) in February 2005 where, among others, there was a study on SRI in Purulia, West Bengal, where SRI was doing particularly well (Sinha & Talati 2007). This brought in other actors, notably the WWF (World-Wide Fund for Nature) and its project on Food, Water and the Environment. WWF saw SRI as a credible alternative to reducing demands on water. WWF was to become one of the more important actors in SRI and started by collaborating with the extension department of the agricultural university in AP. The logical next step was to take the excitement to farmers across the country. It is here that the picture becomes complex and even murky, leading to several surprises.

In the third phase of SRI, there was a slow but perceptible shift from the centres of SRI (AP and the agricultural universities) to the peripheries of rice cultivation. AP led the spread of SRI, but chose to do so through conventional mechanisms by offering regular training programmes to agricultural officers across the country with support from the Indian Council of Agricultural Research (ICAR). It is here that the bigger states that were leaders, such as AP and TN, were stuck. The conventional extension model of on-station demonstrations were replicated and it was expected that ‘progressive farmers’ would visit these and take to SRI, demonstrate this in their fields and spread it like improved varieties of seeds. Government figures indicate that over 30,000 demonstrations were held from 2003–04 to 2007–08 on SRI and yet, despite several farmers knowing about SRI through the active role of mass media in the early years and also the announcement of support from the Chief Minister following a visit to a field in 2005, the state including its extension agencies would find it difficult to list 30,000 farmers who are practising SRI (see Table 1). Clearly, the conventional strategy of demonstrations leading to early and late adopters did not work. Initial indications in TN, too, were similar, though the state chose alternate strategic opportunities, as we shall see later.

Clearly, the approach of focusing on domain knowledge and a closed innovation strategy of not accepting knowledge, and participation even, from other actors put some states into an innovation stagnation mode. Good SRI knowledge, great individual stories of success of enterprising farmers, tremendous effort in taking SRI to the world through organising the first national symposium on SRI, insightful research on why SRI works, innovations in weeder designs, and active presence of both research agencies (e.g. Directorate of Rice Research) and an SRI promoter such as WWF has nevertheless produced a case where the sum is almost less than the parts.

### Table 1: SRI demonstrations in Andhra Pradesh

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of demonstrations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002–03</td>
<td>NA</td>
</tr>
<tr>
<td>2003–04</td>
<td>545</td>
</tr>
<tr>
<td>2004–05</td>
<td>910</td>
</tr>
</tbody>
</table>
The ability of actors to learn, share and expand their scope of influence collectively has been a feature of SRI spread. In sharp contrast is the case of the small state of Tripura, badly connected with the rest of the world (shares international boundaries on three sides with Bangladesh), where an agricultural scientist of the state research station heard of SRI from distant sources, actively sought assistance often from farmers’ fields from anyone willing to give (including Dr Satyanarayana from AP) but chose a different strategy by building acceptance silently first from farmers in the state and systematically with the policy actors that included the Department of Agriculture but also the decentralised local administrations. The experiments in Tripura were quickly moved to the field and soon the results were reports of actual farmers taking up SRI (see Table 2).

Table 2: Spread of SRI in Tripura 2002–03 to 2007–08

<table>
<thead>
<tr>
<th>Year</th>
<th>Area covered through SRI (ha)</th>
<th>Total paddy area (ha)</th>
<th>Covered through SRI (%)</th>
<th>Farmers involved (No.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002–03</td>
<td>8.8</td>
<td>239,670</td>
<td>0.003</td>
<td>44</td>
</tr>
<tr>
<td>2003–04</td>
<td>17.6</td>
<td>242,110</td>
<td>0.007</td>
<td>88</td>
</tr>
<tr>
<td>2004–05</td>
<td>176</td>
<td>238,950</td>
<td>0.07</td>
<td>440</td>
</tr>
<tr>
<td>2005–06</td>
<td>352</td>
<td>237,150</td>
<td>0.14</td>
<td>880</td>
</tr>
<tr>
<td>2006–07</td>
<td>14,678</td>
<td>235,272</td>
<td>6.23</td>
<td>73,390</td>
</tr>
<tr>
<td>2007–08</td>
<td>32,497</td>
<td>235,938</td>
<td>13.77</td>
<td>162,485</td>
</tr>
</tbody>
</table>

Source: Presentation by Baharul Mazumder at ‘SRI Scaling Up: Future Directions’ meeting, ICRISAT, 3 February 2009

As is evident from Tables 1 and 2, Tripura’s outreach to farmers has been much higher than in AP, despite starting late. That figures for AP on number of farmers practising SRI are not easily available is an indicator of the failure of the state agriculture department in taking initiative on SRI.

Opening up the innovation system: interactive learning and managing diversity

The policy actors in Tripura realised the potential of SRI’s contribution to local food security and committed support, including financial, to take SRI forward. By 2008, 160,000 small and marginal farmers were practising SRI in Tripura on 32,500 ha. This transformation was possible not by some enthusiastic non-governmental organisation (NGO) but by the Department of Agriculture working differently. Importantly, the story of Tripura also suggested the need for a new metric to assess SRI. Bigger farmers and larger plots, as are common in the southern states, focused largely on yields and coverage. Smaller states with their large percentage of small and marginal farmers focused on food security and numbers of farmers rather than large coverage. Later experience of CSOs in other states suggests that reaching higher numbers of small and marginal farmers is perhaps more important than trying to reach very high yields in farmers’ fields. In fact, AP prided itself on spectacular success in yields and extent of SRI coverage, with reports of SRI having reached 17 tons/ha and a farmer having taken it to 40 ha. However, evidence of repeating these spectacular results was scarce.

Tripura brought a new dimension to the innovation, suggesting the need to move away from a strategy of maximising yields to one that has a poverty focus and a pro-poor agenda. What was more important was not the absolute yields achieved but the improvement that farmers could manage given their local resources. An important innovation lesson that emerged during this phase was that SRI actors who have been able to incorporate institutional learning, changing the existing rules of relations between research and extension, and were willing to learn by doing, sharing and taking others along, have been able to move SRI much more than those who have been technologically proficient but unable to bring in institutional innovation in the way actors in a system relate to each other.
CSOs took an active role in spreading SRI. They have been able to reverse the trend of innovation stagnation seen in some states. These organisations included international ones such WWF, which saw in SRI the potential for substantial water saving in a water-guzzling crop. WWF played an important facilitating role in bringing actors together and getting them to engage with SRI. The national symposia on SRI in Hyderabad, AP (2006), Agartala, Tripura (2007) and Coimbatore, TN (2008) placed SRI as a credible alternative. As a result, there has been a change in many research organisations, such as DRR (Directorate of Rice Research), that have taken up SRI research. Also other organisations, such as WASSAN (Watershed Support Services and Activities Network), chose to take SRI forward differently by engaging with farmers and literally taking SRI research to the field and organising knowledge dialogue, where government engineers designing weeders were challenged with local conditions and adaptations. WASSAN also enlisted key trainers who could take SRI across the state of AP and country. This horizontal transfer of knowledge worked very well again in smaller states like Uttaranchal and Himachal Pradesh. In a short timespan, the People’s Science Institute (PSI) was able to reach over 10,000 farmers and also experimented with SRI principles on other crops.

The entry of several new actors in the SRI innovation system in India from early 2007 has made the system very complex and diversified. After a lull in SRI expansion from 2004–07, there has been a spurt across the country. A key private donor, the Sir Dorabji Tata Trust (SDTT), with a reputation of working with NGOs on food security and livelihood interventions focused on small and marginal farmers, chose SRI as a strategy for intervention with a spread across 12 states. The Trust is working with 120 partners covering 76 districts in India. It has promoted 30,198 farmers to practise SRI, covering an area of 6635 ha during Kharif (main monsoon period) 2008. A focus on rainfed farming and resource-poor farmers became the new driver of change in SRI. Strategies by SDTT partners that were refreshingly different from traditional extension ensured an exciting response from farmers. Local capacities were built, and exposure visits and farmer-to-farmer extension were encouraged. Agencies like PRADAN (Professional Assistance for Development Action) took SRI further through institutional innovation involving different strategies of intervention depending on the local architecture. PRADAN works in seven states on SRI and started the trend of CSOs working in several states with different strategies (see Table 3). Of specific interest in the way SRI is seen in many of the smaller states is the focus on number of farmer families rather than area or yield.

### Table 3: SRI spread by PRADAN in 2008

<table>
<thead>
<tr>
<th>State</th>
<th>Families covered (No.)</th>
<th>Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assam</td>
<td>80</td>
<td>10.7</td>
</tr>
<tr>
<td>Bihar</td>
<td>8,028</td>
<td>633.0</td>
</tr>
<tr>
<td>Chhattisgarh</td>
<td>672</td>
<td>235.6</td>
</tr>
<tr>
<td>Jharkhand</td>
<td>6,639</td>
<td>623.6</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>723</td>
<td>100.8</td>
</tr>
<tr>
<td>Orissa</td>
<td>1,761</td>
<td>165.1</td>
</tr>
<tr>
<td>West Bengal</td>
<td>5,400</td>
<td>582.5</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>23,303</strong></td>
<td><strong>2,351</strong></td>
</tr>
</tbody>
</table>

Source: Presentation by Manas Satpathy at ‘SRI Scaling Up: Future Directions’ meeting, ICRISAT, 3 February 2009

PRADAN has a diversified strategy that includes creating trained service providers from the community and *panchayat* officials (elected village representatives), skilled extension workers and federations of women self-help groups. The strategy chosen is based on the local institutional arrangement. Building local innovation capacity is seen as the key towards taking SRI forward. This lateral spread of SRI in the very dynamic fourth phase has very different features from the earlier phases.

This feature of interactive learning is not necessarily restricted only to CSOs. A situation of innovation stagnation can be reversed, as is seen in the case of TN. After initial promise, SRI in TN was also likely to go the AP way. However, a change in approach and strategic opportunism in linking SRI to a broader set of actors and programmes in the state brought a sea change. The Tamil Nadu Irrigated Agriculture Modernization and Water Bodies Restoration and Management (TN-IAMWARM), a unique
World Bank funded project introduced during 2007–08, provided a platform for large-scale demonstration with technical and financial assistance and awareness creation of SRI in TN. The state brought in several innovations in the system that included popularising exposure visits by farmers, top-level support through special conferences for District Collectors (senior government officials responsible for regional development) on SRI and extensive use of media, motivating labourers, training artisans to make implements and supplying farmers seeds in 3-kg instead of 30-kg bags. According to official figures, SRI reached 420,000 ha in 2007–08 (Pandian 2009).

Institutional learning, learning alliances and policy dialogue

The dynamic nature of the SRI innovation system suggests that no single actor can continue to hold centre-stage for long. Researchers had important roles to play in early years in validating SRI scientifically and engaging in experiments to unravel the principles that make SRI work. CSOs have played and continue to play an important role in experimenting and rooting SRI in remote parts of the country and introducing a strong pro-poor focus to the system of innovation. However, scaling up their lessons and strategies to areas outside their spheres of influence is not easy. What is emerging as a key feature in the fourth phase of SRI is the ability to create local and regional systems of innovation that offer opportunities for interactive learning across research and non-research actors. This is not to suggest that any actor has no role to play in the new system of innovation on SRI, but rather that they need to rethink their role if they are to remain competitive and useful. The ability of existing actors to take policy actors along through new alliances and dialogues seems to be the key to survival in this phase. Some institutional experiments are worth mentioning.

The state of Orissa in south-eastern India is a good example. The spread of SRI, discussion of SRI in parliament and high-level acceptance (at least on paper) by agricultural researchers meant that official sanction of SRI as a strategy was just a matter of time. Faced with such a situation, Orissa in 2007 had options to go the way of AP, its bigger brother, or to choose a radical way of learning from Tripura, its smaller sister. CSOs in Orissa had already accessed SRI knowledge from other states and there was substantial tacit knowledge on SRI, in fact better than in the state government where SRI trials were yet to start. It was perceived that SRI could have gone the TN way where, because of lack of synergy and collaborative work among government agencies and CSOs, these groups even called SRI by different names.

In such a context, a learning alliance was facilitated by the Xavier Institute of Management Bhubaneswar (XIMB). XIMB had a dialogue with the Director of Agriculture and proposed a workshop that would do a thorough stocktaking of SRI in the state by inviting actors and placing them on a common platform. This sharing of experience was to lead to creating spaces for local-level alliances, where CSOs and government departments could work together with research agencies. The learning alliance dialogue workshop in June 2007 had set for the participants, many of whom were meeting for the first time, an ambitious set of objectives that included building SRI innovation capacity in Orissa, creating a learning platform for agriculture officials on SRI, and working on policy and institutional uptake including policy advocacy both within the state and at the central level. The actors’ experiences were documented (Shambu Prasad et al 2007) and shared at the national symposium in Tripura. The book was later distributed widely in the state, with the Director of Agriculture making repeated requests to convey this to District Collectors and others.

The concept of the learning alliance – “a platform where a range of stakeholders come together with a common interest in innovation and the creation of new knowledge” (Lundy & Gottret 2005) – is particularly useful for SRI, as SRI is a complex innovation that requires that actors learn together to unravel the principles and insights. The book created a demand amongst different actors, as most actors had chapters on SRI told in their way with no artificial attempts at consensus. Other states felt the need to organise similar state-level workshops and, in the last few months, Bihar, Madhya Pradesh, Jharkhand and Assam have had similar experiences. Earlier, PSI had organised similar workshops in Uttaranchal and Himachal Pradesh. One way to manage diversity was to reframe the scale of interaction. National-level workshops were useful to help situate SRI in an international context and provide a feeling of community, but were not enough to make actors connect at the state level, where most innovations were needed.

The experience of learning alliances also pushed expectations of researchers, forcing innovation analysts to have a continuous and nuanced understanding of the system so that it could be shaped
based on its tacit knowledge. The book was followed up by a scoping study a year later, with a view to understanding how far these actors had progressed in the intervening period and how these insights could be used to work out a scaling-up strategy. This, it was felt, was best done through policy dialogue. Rather than have the research study shared only with the donors who supported it, the study was used as a dialoguing tool to strengthen the learning alliance (Shambu Prasad et al 2008). The format of the workshop was designed to create a level playing field for all actors. Researchers patiently waited until late in the night after hearing from the various actors and came up with surprisingly fresh directions on SRI research that they had not communicated earlier to other research actors in the state.

For one day, farmers, CSOs and researchers were asked to share their experience with SRI. Key SRI actors were then invited for a panel discussion in the presence of other national and international experts, including Baharul Mazumder from Tripura. Creating such an atmosphere for dialogue brought some pleasant surprises, which included most actors identifying that the key issue for scaling up SRI was building synergy amongst the actors rather than funding. A blogspot (http://sri-learning-alliance.blogspot.com/) was created for the learning alliance. The experience of creating spaces for policy dialogue through SRI has recently been followed up by seeking dialogue on the state’s agricultural policy. In this experiment, a framework on Research and Technology for Development (RTD) was used to further dialogue and discussion on agriculture, shifting emphasis from policies to policymaking processes (see http://rtdpolicydialogue.wikispaces.com/ for details).

Continuous innovation

The process of learning alliances and policy dialogue is far from perfect or complete. It places a very different kind of demand on researchers of innovation, forcing them to practise many of their theoretical insights on systems of innovation. It needs time and support to continue to facilitate these processes and research and impact evaluation that can help continuous learning. Following the workshop, a dialogue group was created for sharing insights on SRI specific to Orissa. The idea was to provide a space where some of the government staff could learn in a stress-free manner by having information and insights reaching their mailboxes. The inspiration for this has been the successful e-group that was informally initiated by SDTT with involvement of XIMB and other CSOs.

In 2007, some Indian members were part of other SRI e-groups of Nepal. After the meeting of several SRI actors at the second national symposium, some of them created an electronic group on SRI (sriindia) in October 2007. The group has seen an explosion of interest and is worthy of a separate study by itself on the role of informal networks in spreading knowledge-intensive agriculture. The group has over 300 members with 1300 messages to date. It has become a treasure of SRI information, even though dialogue among members who have not met each other is low. The network continues to receive interest from other countries and carries discussions on SRI techniques, experiences, events etc. Extracts from the e-group are featured in the SRI newsletters that WWF brings out each month. Members are happy to participate, sharing their experiences, commenting on distortions in public policy support for SRI and correcting data errors on SRI maps.

Many actors have observed that SRI seems a continuous journey with little time to reflect and look back on the state of SRI. This paper attempts to do so by recounting the story of SRI as one where learning from the past can indeed help plan for the future. Often, this learning is not clearly articulated and is in the form of tacit knowledge residing amongst individuals or their networks. Smaller states and actors with possibly lesser egos have, as we have seen in the SRI case, been more open to innovation. They have been able to move further than some of the bigger states by ensuring greater participation of actors at every stage of the process. This requires innovation champions, but the creation of a culture of innovation can be facilitated through learning alliances, policy dialogue and e-groups. These institutional innovations need greater attention if we are indeed going to make a shift from the old Green Revolution paradigm of input-intensive agriculture to a new agroecological paradigm of knowledge-intensive agriculture.

A key lesson in the processes of learning alliances and policy dialogue is the need for actors to recognise the complexity of agriculture and rural development in the 21st century. Coping with complexity does require technical support but more fora for interactive learning and dialogue and a tacit recognition that most of the problems, to use systems-thinking language, are ‘wicked’ problems that have no easy answers that can be found by some innovative superstar. There is a need to
support creation of fora for policy dialogue that can promote interactive learning. This needs the urgent attention of donors who otherwise tend to see these as a waste of resources better used for extending technologies. However, as the SRI story shows, managing complexity requires creating a culture of innovation that can lead to institutional innovation and system capacity to cope and strategise.

References


2 Most Indian states are in the ‘alarming’ category; see IFPRI’s India State Hunger Index 2009 (http://www.ifpri.org/pubs/cp/ishi08.pdf)
3 For the IAASTD report, see www.agassessment.org; for the International Commission on the Future of Food and Agriculture report, see http://www.globalbioenergy.org/uploads/media/0805_ICFFA_Manifesto_on_climate_change_and_the_future_of_food_security.pdf