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Towards a paradigm shift in India's rainfed agriculture

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Cross-country comparisons show that the impact of GDP growth originating in agriculture on poverty reduction is twice as much as that of GDP growth originating outside. In India, rainfed agriculture (including animal husbandry) is emerging as a major constraint in raising overall agricultural growth. Rainfed areas in India are spread over in some 200 million hectares and constitute 62 percent of the total geographical area of the country. Spanning several agro-ecological regions, the rainfed areas represent the geography with the largest concentration of poverty and backwardness. The key thrust in agricultural policy until now has been to indiscriminately extend the water-intensive Green Revolution technology to these areas that have a significantly different natural resource configuration. This has led to several catastrophic ecological consequences, such as loss of soil fertility, groundwater depletion, loss of bio-diversity and an increase in climate change vulnerability. At the same time, lack of inadequate support for rainfed agriculture in terms of support price, availability of inputs, credit, market access and agricultural research has caused widespread desperation. The most visible aspects of this desperation are farmer suicides on the one hand, and the rising tide of left wing extremism on the other. In rainfed agriculture, we need a radical shift away from the current paradigm derived from the experience of the Green Revolution.

Even with this policy neglect, the contribution of rainfed agriculture to the national economy is by no means small. Rainfed agriculture accounts for 56 percent of total cropped area, 48 percent of the area under food crops and 68 percent of that under non-food crops. In terms of crop groups, 77 percent of pulses, 66 percent of oilseeds and 45 percent of cereals are grown under rainfed conditions. Food grain production in India grew at a rate of 1.26 percent per annum between 1990–1993 and 2003–2006. Meeting the future demand for food grains (estimated at 280 million tones by 2020) would require a step up in the rate of growth of food production where rainfed agriculture has to play an important role. As estimated by the Technical Committee on Watershed Development (2006), even in the best possible scenario of irrigation development, about 40 percent of the additional supply of food grains needed to match future rise in demand will have to come from rainfed agriculture. Therefore, a breakthrough in rainfed agriculture is an imperative for poverty alleviation, livelihood promotion and food security in India.

Watershed development has been one of the important vehicles for directing public investment to rainfed agriculture. However, to be effective, the rainfed agriculture package needs to move beyond watershed development and integrate several other components. Samaj Pragati Sahayog (SPS) has been engaged in the implementation of such an integrated watershed and

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rainfed agriculture package by bringing together different stakeholders in the tribal drylands of central India for the last 20 years. This work has enhanced drinking water availability, sustained employment generation and livelihood security in several villages. Decentralised water harvesting provides vital life-saving irrigation support to farmers and ensures drought-proofing of the rainfed crop. As a result, the value of agricultural production has doubled. The immediate impact is observed on distressed out-migration from the villages, which has shown a decline of about 80 percent. There has also been a significant decline in the level of indebtedness of these households to traders and moneylenders who charge usurious rates of interest.

While the experience of SPS and other civil society organizations working in similar contexts have shown the strength of this approach at a micro-level, the overall impact of the rainfed agriculture package need to be demonstrated at a scale. It is in this context that SPS joined a group of civil society organizations, researchers and policy-makers who have come together to form the Revitalizing Rainfed Agriculture (RRA) Network. The RRA network currently has 109 members spread across rainfed areas of the country, and is emerging as an important platform articulating the issues of rainfed agriculture at the national level. The RRA network is attempting to generate large scale and field-based evidence through implementation of comprehensive rainfed agriculture pilots in different bio-physical and socio-economic contexts and typologies within rainfed India, and to develop policy advocacy on the basis of that evidence. The network is currently putting together available experiences across rainfed typologies on various themes such as water, soil fertility, seeds, inputs, land use, livestock, marketing, credit, etc. An important aspect of the pilot efforts of the RRA network is an attempt to leverage resources from ongoing public investment programmes for grassroots implementation. Generation of such evidence will provide an opportunity to test the effectiveness of specific interventions, evolve operational strategies for scaling up, develop systems of monitoring and documentation of results, and garner important lessons for public policy that identifies the crucial agents of change in rainfed agriculture.