



BUILDING IDENTITIES AND RECOGNISING WOMEN AS PRODUCERS

A Strategy for disaster Risk Reduction



Gorakhpur Environmental Action Group

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Vegetable gardening

1. Introduction

"*Hum bhi kisan hain*, (We are farmers too)" says Kevla Devi, a scheduled caste (SC) woman in her early 40s, who resides in Sanhre Kala village in Mehendawal Block of Sant Kabir Nagar district in eastern Uttar Pradesh (UP)¹. She is the head of the village Krishi and Aajeevika (agriculture and livelihood committee). Her household of seven has just 0.45 acres of land. Her friend, Shipra, 35, SC, and the head of the village *swasthya* (health) committee adds, "We don't rely on anyone but our own labour and brains. The Gorakpur Environmental Action Group (GEAG) support and knowledge is our fertilizer too." Sanhre Kala has 150 SC households out of a total of 400. All the SC households are small and marginal farmers, with at the most one acre of land. In an effort to reduce risks to disasters, GEAG has organised the women of these households into several committees: Agriculture and Livelihoods, Disaster Management, Health, Self-help groups and a Village Resource Management Committee.

It is unlikely that these women, and those from about 1000 households covered under GEAG's Disaster Risk Reduction Programme financed by Oxfam would have heard of the 'Women Farmer's Entitled Bill, 2011' tabled as a private member's bill in the Rajya Sabha of the Indian Parliament by the renowned agricultural scientist, MS Swaminathan, on the 11th of May 2012. The Bill seeks to "provide for the gender specific needs of women farmers, to protect their legitimate needs and entitlements and to empower them with rights over agricultural land, water resources and other related right and for other functions relating thereto and for matters connected therewith."² To these women and to GEAG while the bill might further boost their work, the issues involved are nothing new. In a disaster prone region marked by gross inequalities including of gender, women perform nearly 70 per cent of the work in agriculture but only 6 per cent women have land in their names. GEAG since its inception made gender and social equity a cross cutting issue in all its interventions. Its field level interventions have sought to strengthen the struggles of the poor women and men participants in its projects against poverty and gender and caste based exclusion and discrimination. However, GEAG's intervention strategy has also enabled these women to fight disasters and climate change.

Eastern UP including the areas in which GEAG works is particularly prone to floods. This study looks at the processes and the impacts and consequences of GEAG's attempts to empower women farmers, all of them Dalits, and derive the lessons that can be learnt from the effort in disaster risk reduction (DRR) and adapting to climate change. It is sought to analyse the linkages of women's rights and interests with DRR and climate change, essentially underscoring the importance of not treating a disaster as an event that has uniform impacts, thereby questioning interventions that do not address the inherent unequal social structures in disaster struck communities. The study seeks to highlight the importance of addressing gender issues in any intervention to reduce risks to disasters and build up resilience to climate change among communities.

The study is primarily based on examples and data from GEAG's field interventions, including one on disaster risk reduction funded by Oxfam. Apart from secondary data, primary data was collected in March and June 2012 through rapid rural appraisal methods, that is, focus group discussions with the women

¹ Eastern UP comprises of 17 districts and is often referred to as Purvanchal (cf. <http://en.wikipedia.org/wiki/Purvanchal>)

² The Bill is yet to be discussed and passed. For a full text of the bill, see <http://164.100.24.219/BillsTexts/RSBillTexts/asintroduced/womn%20farm-E.pdf>

participants and some individual interviews and discussions with the concerned staff. GEAG's data bases have been extensively used.

The monograph is divided into eight sections. In section 2, the regional agro-climatic and socio-economic context of GEAG's work in eastern UP is discussed briefly. This is followed by a discussion on gender and DRR (section 3). Section 4 discusses GEAG's intervention strategies and agricultural models before discussing the DRR project in section 5. In section 6 an attempt is made to draw the major lessons for both policy and practice in terms of gender and disaster risk reduction. Section 8 is the concluding one, with some suggestions for the future.

2. The Regional Context of GEAG's Work

2.1 : The Agro-climatic Crisis

Eastern UP has abundant underground and surface water. Numerous rivers and streams arising from the Himalayas, flowing into the Saryu or Ghagra and its major tributaries the Rapti and the Little Gandak have, over time, carried and deposited precious silt in these plains, making the land extremely fertile. Consequently, the region has a high population density. But large parts of eastern UP are also poverty-stricken and flood affected. In a region where agriculture still is the main source of livelihood, small holder agriculture is predominant (90 per cent farmers are small and marginal, with holdings less than 1 hectare) floods cause extreme devastation annually. The gentle gradient of the land and the slow current of the rivers, seasonal water retention for short periods has existed from times immemorial. But over the last several decades, changes in the pattern, character, duration and extent of floods have brought untold misery to the people, and adversely effected agriculture, health and livelihoods, caused loss of life and property, decreased the land -productivity and transformed water retention into a problem of waterlogging. Embankments, ostensibly to control /contain floods have increased people's woes as the waters do not recede after the floods are over. Construction of roads through the floodplains has accentuated the water logging. In some places, including in Gorakhpur district, some areas are inundated for four months a year. Due to this water logging, vector borne diseases like malaria and Japanese encephalitis are rampant along with jaundice and diarrhea.

Changes in the climatic conditions have only worsened the problem. In the last several decades, the ferocity and frequency of floods in *purvanchal* has considerably increased, recurring every three- four years. At places, it has even become a regular, annual feature, which greatly affects the livelihoods of the people. The people inhabiting the flood-affected regions attribute this to climate change. Indeed, the climate of eastern Uttar Pradesh has undergone a definite change in the last few years. For example, it has now become normal for the temperature to cross 45° Centigrade and remain so for long periods during the summers. Such temperature rise causes rapid melting of glaciers which is increasing the water level in the rivers. On the other hand, there has been a significant change in the monsoon period. The timings of rain have become very unpredictable. While earlier, August-September was the usual period of flood, today it is not. In 2007, there were heavy rains in July causing sudden floods, for which the people were ill-prepared, had very little time to respond and there was considerable loss of life and property.

Effectively, the flood related changes observed in the region are:

- ♦ Change in time, volume and pattern, of rain.
- ♦ Increasing frequency of flash floods resulting in fissures in or collapsing of embankments.
- ♦ Smaller rivers and streams becoming a major cause for floods.
- ♦ Decreasing lakes and reservoirs and their decreasing capacity to hold large volumes of water.
- ♦ Increasing duration of water-logging.

In the next section the human impacts of these changes are discussed.

2.2: Gendered Impacts of Agro-Climatic Changes

In the region's economy agriculture is predominant and climatic changes impacts farmers severely. On top of it, riverine erosion destroys hundreds of acres of prime crop lands annually. Consequently, crops and houses get submerged in floods or fall into rivers, health problems become acute and water-logging seriously delays and affects the next crop. Options and opportunities for work and labour decrease and the multi-pronged problems make the community extremely vulnerable³.

As mentioned in the previous sub-section, most of the farmers are small and marginal ones. The net returns to the agricultural enterprise is severely constrained by high level of dependence on capital intensive inputs, like synthetic fertilisers and pesticides and high yielding variety seeds, that is the so called Green Revolution package. In a scenario of falling agricultural commodity prices, the farmers are further affected as the soil productivity has been seriously affected due to the increased use of synthetic inputs⁴. Around a quarter of



^{3a}Vulnerability is a more dynamic concept than poverty as it captures the changing degree of susceptibility to loss caused by exposure to disaster or risk of individuals (access to a 'basket' of assets), communities (governance of resources) and systems (adaptive strategies), Ahmed, Sara (undated), "The Gendered Context of Vulnerability: Coping /Adapting to Floods in Eastern India" undated mimeo.

⁴Ibid.

the rural population is landless, working as agricultural labourers or in other non-farm activities. The practice of sharecropping (*adhiya*) is widespread, and 50 per cent of the produce is given to the landowner in return for seeds, fertilisers and other inputs⁵. Soil salinity and water logging is increasing and mechanisation of agriculture has displaced labour considerably. State employment guarantee schemes like NREGA often do not deliver appropriately, the issuing of job cards and payments caught in a vortex of corruption and political patronage. Where it does function, the workers demand from landlords the payments they get in NREGA, which the latter say are beyond their capacity to pay, given the diminishing returns from agriculture. In turn, this becomes an excuse for enhancing mechanisation of farms.

One consequence of the above situation is migration, mostly of men, to cities like Gorakhpur, or even Delhi, joining the unorganised labour force and living under miserable conditions. A recent study by GEAG of 300 migrant households in Gorakhpur city found 20 per cent of the informal sector migrant workers were victims of climate change, or climate change refugees. Two thirds of these 300 migrants stayed alone in the city and had left their families behind in the village⁶. Most of the migration is of a cyclical nature, the men migrating and leaving the women behind to look after the household, homestead and the small plots of land. Male migration puts additional burden of responsibility as well as physical work on the women, who rarely have access to or control over productive resources⁷. The distinction between reproductive and productive work for the women gets blurred, with the family farm becoming a part of the 'household work.' Yet the male dominant social structure doesn't allow women to go to the market for purchasing inputs like seeds or fertilizers unless accompanied by a male relative. More often than not, the women get their male kinsmen to do these tasks. Most of the decision making is done by the migrant husbands, often through cell phones, or elderly male/female relatives like in-laws. But managing the household well brings them 'prestige' and women support their husbands emotively instead of opposing them as they are still considered the 'breadwinners.'⁸ However, the condition of women remains vulnerable. Malnutrition and anemia is rampant. Upper caste oppression is common too as most of the households with migrant males are Dalits (SC)⁹. Needless to say, the major brunt of the socio-economic inequalities and the disasters are borne by the women, under-scoring a fresh look at not only at gender and development but gender and DRR as well. This is attempted in the next section.

⁵Ibid. *Adhiya* is the most common system of sharecropping with apparently little conflict between farmers and landowners. There are other systems prevalent too, such as *Hunda* in which land is leased in on fixed terms with the sharecropper providing all the inputs, loss and damage and *Rehan* in which the land is hired for an agreed price for one to three years by resource poor farmers or a group of farmers (Ibid, footnote 16).

⁶Mitra, Amit and Bijay Singh, 2011: *Servicing the City Migrant Workers and Deprivation in Gorakhpur, Uttar Pradesh, India*, GEAG.

⁷Agarwal, Bina: 1994: *A Field of One's Own: Gender and Land Rights in South Asia*, Cambridge, Cambridge University Press and also Agarwal, Bina, 2003: "Gender and Land Rights Revisited: Exploring New Prospects via the State, Family and Market in S Razavi (ed): *Agrarian Change, Gender and Land Rights*, Oxford: Blackwell and Geneva: United Nations Research Institute for Social Development.

⁸Cf. Rao, Nitya, 2012 (forthcoming) : Male 'providers' and Female 'housewives' : A gendered co-performance in rural North India, *Development and Change*.

⁹Mitra and Singh, 2011, op cit.

3. Gender and Disaster Risk Reduction

No matter where in the world and when, a disaster is a crisis and represents a critical moment in the lives of the affected. Talking of gender in such critical moments is often seen as superfluous as it is often assumed, by the general public and development as well as disaster preparedness and management experts alike that “disasters are ‘levellers,’ affecting everyone who comes within their orbit in a more or less equal fashion. Indeed, the ‘tyranny of the urgent’ thinking that guides disaster relief emphasises that the provision of assistance to the homeless, injured, and hungry needs to be addressed first and foremost, thus indicating that gender concerns must wait until more immediate needs have been met.”¹⁰ Indeed, across the world, responses to disasters have typically been associated with charity work motivated by humanitarian concerns and imperatives, responding to basic needs of people after disasters. Traditionally taking the form of relief, such humanitarian work has been carried out in two fields: that of natural disasters, that is disasters following extreme events such as floods, drought, cyclone, typhoon, volcanoes and earthquakes; and those born of human conflicts such as ethnic or political strife, failure of governance, or armed conflict.¹¹ Humanitarian relief work mandatorily requires the practitioners to be neutral, impartial and respond according to needs.¹² This follows from a perspective that those who experience disasters are a homogenous category, typically described as victims. Such thinking overlooks gender, caste and class as well as life cycle differences in the affected populations.¹³ It is ignored that disasters play out in varying geographic, political, socio-economic and cultural contexts.¹⁴ People’s abilities “to respond, cope with or adapt reflect unevenly distributed patterns of vulnerability structured by access to and control over resources, the extent of diversified livelihood strategies, physical location (community settlement patterns, population density) or personal endowments (skills, education, key survival and recovery resources) and access to information and communications systems.”¹⁵

How is gender connected with natural disasters? Whereas catastrophic events obviously pose a threat to everyone caught in their proximity, what is less well appreciated is that disasters also have gender-differentiated outcomes.¹⁶ Increasing evidence over the last two decades shows that gender inequalities, expressed in women’s social and economic marginalisation vis-à-vis men, often result in women bearing a disproportionate burden of the costs of disasters.¹⁷ However, despite indisputable evidence that women are disproportionately affected by disasters, gender remains a peripheral concern in the field of disaster preparedness, relief, and management; and it is typically incorporated into the work of only a handful of gender aware non-government organisations (NGOs) and civil society groups.¹⁸

¹⁰ Mehta, Manjari, 2007: *Gender Matters Lessons for Disaster Risk Reduction in South Asia*, International Centre for Integrated Mountain Development, Kathmandu.

¹¹ Akerkar, Supriya, 2011: ‘The Production of Rights in Disasters in Uttar Pradesh, India Implications for Theory and Practice,’ PhD Thesis submitted to the University of Northumbria at Newcastle, UK.

¹² Mackintosh, K. (2000) *The Principles of Humanitarian Action in International Humanitarian Law*; Overseas Development Institute (ODI), London

¹³ Fordham, 1999: “The Intersection of Gender and Social Class in Disaster: Balancing Resilience and Vulnerability,” *International Journal of Mass Emergencies and Disasters*, 17(1)pp.15-36

¹⁴ Enarson, E 2000: *Gender and Natural Disasters*, ILO, (Infocus Programme on Crisis Response and Reconstruction, Working paper No.1); Geneva, p.vii

¹⁵ Ahmed, op cit.

¹⁶ Mehta, op cit.

¹⁷ Ibid.

¹⁸ Ibid.



But, in fact, disasters are extremely gendered events in terms of both their impacts and people's responses to them. In the developing countries' context, it is now recognised that women, children and the elderly carry disproportionate vulnerability bundles that place them in the highest risk category, even amongst communities already marginalised by their caste, class, ethnicity, region or religion.¹⁹ Vulnerability is structured by relations of gender and power intersecting at different institutional sites:

*"Gender is a pervasive division affecting all societies, and it channels access to social and economic resources away from women and towards men. Women are often denied the right to vote, the right to demand land and generally have less control over income earning opportunities and cash within their households. Normally their access to resources is inferior to that of men. Since our argument is that less access to resources, in the absence of other compensations to provide safe conditions, leads to increased vulnerability, we contend that in general women are more vulnerable to hazard."*²⁰

Failure to acknowledge this not only runs the risk of overlooking obvious and more subtle needs and priorities that can make all the difference between life and death, but can also diminish the efficiency of disaster responses, and even contribute to creating new categories of victims.²¹ It is nobody's argument that men do not suffer in a disaster, in fact they may be the hardest hit. But given the low social, political and economic status of women compared to men makes them more vulnerable and disasters enhance

¹⁹Ahmed, op cit; Ariyabandhu M, 2000: "Impacts of hazards on women and children- situation in South Asia", paper presented at the Miami Conference on "Reaching Women and Children in Disasters," Florida International University; Fernando P and V Fernando (eds), 1997: *South Asian Women: Facing Disasters, Securing Life*, Intermediate Technology Publications for Duryog Nivaran, Colombo.

²⁰Blaikie et al 1994, cited in Ahmed op cit.

²¹Mehta, Manjari, op cit

vulnerabilities. In a disaster context, women's entitlements and perceptions of interest and well-being are further contested as households struggle to survive: "Women themselves underestimate the enormous range of burdens they bear; they may harbour negative images about themselves and be unused to perceiving of themselves as strong and effective survivors, managing a wide-spectrum of household responsibilities."²²

The last decade has seen a shift in the thinking about disasters. Internationally, governments and non-government organisations have, under the UNISDR initiative, adopted the Hyogo Framework for Action (HFA), 2005, which connects long term development goals and strategies with disaster risk reduction and resilience building.²³ Risk reduction is seen to be at the "interface between humanitarian response to disasters and development."²⁴ The HFA, the central framework that informs countries' risk reduction measures and post-disaster recovery and rehabilitation processes, also calls for a gender perspective to be integrated into all disaster reduction management plans, policies, and decision-making processes. Accompanying this policy shift is a new way of conceptualising disasters, their associated risks, vulnerabilities, and outcomes: not simply as isolated events, the consequences of nature gone badly awry, but, rather, as social events that are embedded in human choices, decisions, and actions.²⁵

The new thinking has emerged out of a growing concern that the social and economic costs disasters are holding back the processes of sustainable development and are jeopardising the attainment of the Millennium Development Goals. Thus contemporary thinking places hazard and vulnerability reduction within the broader context of the development process, focussing as much on longer-term development needs as on the immediate short-term, life-saving goals.²⁶

This shift also creates new challenges for principles of 'neutrality.' Indeed, when disaster response, recovery and risk reduction is linked with development goals it becomes political.²⁷ This makes taking sides important. As has been rightly pointed out, "Rights, responsibilities and governance are core aspects of the disaster and development nexus."²⁸ Core concerns such as social inequality, societal diversity, and social change need to be addressed and located in broader "conceptual frameworks including in particular those concerned with risk, organizations and institutions, and society-environment interactions."²⁹

Essentially then it has to be understood that gender is important parameter (along with other correlates like caste/class/stage in the life cycle) in determining vulnerability and has to be integrated in disaster risk reduction and management work. The work has to be political if vulnerability has to change to a situation of

²²Parasuraman S and PV Unnikrishnan, 2000: *India Disaster Report: Towards a Policy Initiative*, Oxford University Press, New Delhi, p. 11

²³UNISDR, 2005

²⁴Action Aid International, 2006 p. 2

²⁵Mehta, op cit.

²⁶Ibid.

²⁷Akerkar, op cit.

²⁸Collins, A., 2009: *Disaster and Development*. Routledge, London, p. 250.

²⁹Tierney, K., 2007: 'From the Margins to the Mainstream? Disaster Research at the Crossroads', *Annual Review of Sociology*, 33 pp. 520-521

empowerment. In practical terms, this means apart from addressing the needs of women as women as rights (sanitation, hygiene, security, freedom from violence), that interventions have to simultaneously address social, political and economic needs both in the short and long terms. This is all the more important in a region like eastern UP where the recurrent floods, now accompanied by droughts in the same year, as well as riverine erosion, have not only reduced the incomes of the poor but has led to increased male migration. In most villages in the region, it is rare to find poor households in which the working adult males have not migrated to some city. It is a feminised economy, but the women are not given their due recognition, leave alone their rights.

The efforts of GEAG are examined in the next few sections against the above background. The basic parameters of the analysis revolve around the facts that a) the agrarian enterprise is essentially small and marginal farmer based but now increasingly feminised; b) strong gender and caste inequalities prevail in the region and c) disasters in the form of floods and now droughts, more due to climate change effects are a recurrent feature in the lives of the people. The latter is important inasmuch as the 'disaster' is not a one off, one-time event. Hence, the risk reduction strategies need to be holistic and long term.

4. GEAG's Intervention Strategy

4.1 : The Holistic Thrust of the Gendered Intervention

With an intense and active presence in 140 villages across the state, but stronger in eastern UP, GEAG has always stood for the rights of the poor and the excluded. Over the years since its inception in 1992 as an implementing NGO, it has championed the rights of women. To empower women socially, politically and economically, its field-based work is based on a three pronged strategy of:

- ♦ Social mobilisation through development SHGs, village to state level morchas (struggle units) and village level federations bringing the two together.
- ♦ Sustainable agriculture interventions (techniques, marketing and service centres).
- ♦ Micro savings and credit programmes in which finance is used as a means to organise the unorganised and is not an end in itself.



GEAG not only recognises women as farmers, it strongly focuses on them. This is evident from the fact that in the DRR project, 28 of the 40 model farmers selected across 20 villages in just one year were women, all of them from households with less than 1 acre of land. Do these women have land in their own names? Perhaps not, and GEAG functionaries recognise that starting a drive to register land in women's names without organising them first might be counterproductive and in fact might alienate not only the women but their households as well. But in recognising the women as farmers, GEAG has given them an identity and boosted their creativity too, something that would not happen perhaps by the mere recording of names in government registers. As the academic activist Nitya Rao who has spent two decades working on women's right to land puts it, "Struggles to assert one's identity keep women alive and comprise the very essence of their womanhood."³⁰ Over the last two decades, GEAG has sought to do precisely this: enable women to assert their identities, without instrumentalising them. The consequences of this have been far reaching. The political and social mobilization takes the form of organizing the women in not only credit groups but true self help ones and joining them in the Laghu Simant Krishak Morcha (LSKM). The LSKM, set up in 2000, is the only independent registered trade union of small and marginal farmers in the country that was initiated by an NGO (GEAG). Out of its present 132000 members, 60 per cent are women. The LSKM has a presence in almost every village GEAG works in, as well as other villages outside GEAG's area of work and takes up issues ranging from malfunctioning schools and dispensaries to combatting upper caste high-handedness. Errant and corrupt officials are often challenged.³¹

The economic empowerment takes place through improved farming techniques, marketing channels and awareness building, the focus being on the women. Note that improved here doesn't imply improvement in the Green Revolution sense of using higher doses of synthetic fertilisers and pesticides but a return to the roots: low external input sustainable agriculture (LEISA). The LSKM plays an important role in the propagation of these practices, led by model farmers, many of whom are women. Before discussing the agricultural models, it is important to note that over centuries the local people, especially the women, have developed their own ways and means to deal with floods and other disasters. These measures and techniques are locale specific, require no external help or support and are inherently scientific. These indigenous techniques have shaped the people's lifestyles in these regions and strengthened their adaptive capabilities. Such adaptive capabilities of the local communities assume extreme importance in dealing with floods, water-logging and climate change. However, such grassroots methods and technologies remain localized and are scarcely documented or disseminated, barring the efforts of a few CSOs like GEAG and its networks.³² Needless to say, women play an important role, both potentially and actually, in the creation and dissemination of such knowledge, but it is important that they be recognized and given the space or else such knowledge will disappear.

³⁰Rao, Nitya, 2008: *Good Women do not Inherit Land Politics of Land and Gender in India*, Social Science Press, New Delhi, p. 2.

³¹Dogra, Bharat, undated, : "Combining Farmers' Rights and Sustainable Practices Laghu Seemant Krishak Morcha in East UP", (mimeo)

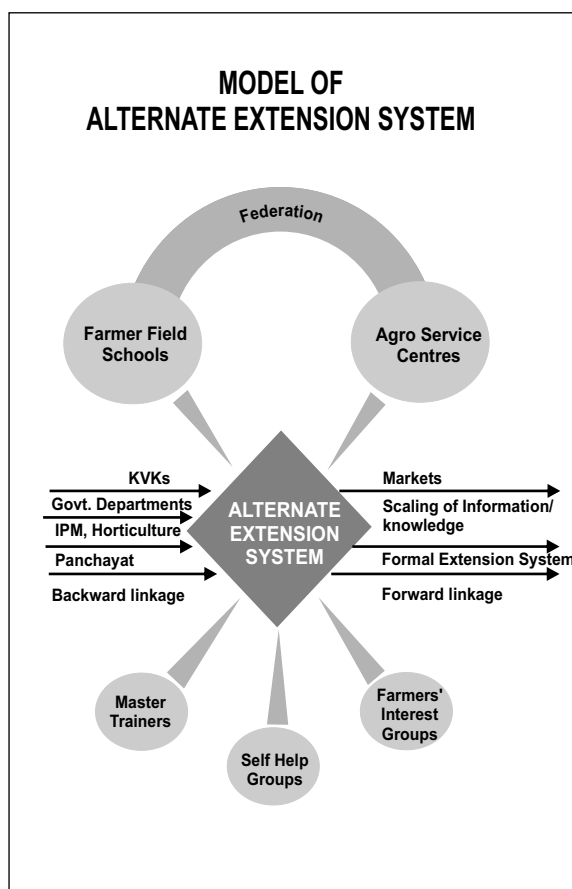
³²GEAG 2008: *Adaptive Capacities of Community to Cope up with flood situations*, Gorakhpur Environmental Action Group, Gorakhpur,

4.2 : The Community's Adaptation Capacities

GEAG's long term involvement and research in the area has shown that a community's adaptive capacities to climate change and hence reducing the risk's from disasters need to take into consideration the following factors :

- ♦ The state of natural resources in the area.
- ♦ The livelihood system and opportunities at the local level.
- ♦ Income generating opportunities outside, in the nearby areas.
- ♦ Basic physical infrastructure, services and amenities like roads, housing, drinking water, sanitation and electrification at the local level.
- ♦ The area's socio-economic and gender sensitivities.
- ♦ People's accessibility to information and know-how.
- ♦ Social capital in the community, like the existence of social infrastructure as well as networking with government and formal sector organizations like bank, government departments and CSOs.

As such, in order for people to deal better with floods and their changing character, one of the ways is to build people's adaptive capabilities through raising their awareness, knowledge base and capacities to earn a living through a selection of appropriate crops and techniques. This is essential, but as much a challenge in practice as well as methods of awareness raising /training. The latter necessitates building up on the people's own knowledge, that is using andragogical instead of pedagogical principles. The actualisation of the training necessitates collective action instead of individual approaches as in the relief mode, such collective action undertaken through people's democratic institutions, as GEAG's two decades experience shows. Essentially, in this model, the intervening agency acts as a catalyst, and the people, through their institutions solve their own problems and educate each other. Thus, over the years, GEAG has developed an alternate people's extension model, in which farmers teach and learn from each other, with women playing a lead role. In the next section, these issues are elaborated on, using the example of a recently completed project.



4.3 : GEAG's Agricultural Intervention Models³³

Learning from and building upon the farmer's, especially the women farmers indigenous knowledge, GEAG has near perfected the following agronomic practices to adapt with the vagaries of the weather, floods and droughts and climate change;

- ♦ Time and space management
- ♦ Crop diversification
- ♦ Mixed cropping
- ♦ Inter-cropping
- ♦ Multi-layered cropping
- ♦ Raised nurseries
- ♦ Floating nurseries



The package includes water resistant crop varieties, early varieties, using organic manures and indigenous seeds. The women farmers choose their own techniques depending on the situational exigencies. Appropriately located village resource centres provide the necessary information.

But foremost is the emphasis on forming institutions, led by women, some exclusively for women. GEAG socially targets the hitherto excluded, that is the small and marginal farmers and the landless, most of them Dalits.

This strategy has over the years paid rich dividends economically but more importantly socially. (See BOX : Earthly Wisdom)

³³For details see Bhat, Seema, 2012: *Resilient Farming on Small Land Holdings Adaptive Strategies to Combat Climate Change*, Gorakhpur Environmental Action Group, Gorakhpur

EARTHLYWISDOM

In a time of widespread agrarian crisis, the achievements of some women small and marginal farmers have appeared like a ray of hope in Gorakhpur district of eastern Uttar Pradesh. Prabhavati Devi is one such farmer based in Dudhai village (Sardarnagar block). Along with her husband Suryabhan she owns one and a half acres of land. It is a very small farm, but this family utilised it in such a well-planned way that this small piece of land provides nutritious food to the 10 member family all through the year, apart from earning them a steady cash income all through the year. In addition, the cost of cultivation is kept very low. The quality of grain, vegetables and other produce is very good as no chemical fertilizers and pesticides are used. Hence the vegetables grown here have many eager buyers.

Another interesting aspect of this family is that while all members make their contribution, the leadership role of Prabhadevi is clearly and easily accepted. This became obvious from the way in which she provided us all the details and guided us in the farm at the time of our visit. Prabhavati, 53, follows the 'food first' approach by trying to meet as many of her family's food needs from the small farm. So not only her family's grain (rice, wheat, maize) and vegetables (over 20) but also many pulses, oilseeds and spices are grown on this small field. Every nook and corner is utilised in a judicious way to grow some food crop or the other. The way in which one plant can support another crop - for example by providing shade - is kept in mind while growing various diverse crops. Fruit trees like mango, banana, jack fruit, bel, papaya, mulberry, lemon and pomegranates also have a place in the farm. Medicinal plants like tulsi and jwarankura have a place of honour in the fields.

All this is nice, but obviously Prabhavati cannot ignore the cash needs of her family. So, various crops are planned in such a way that beyond the family's needs, a cycle of vegetables, fruits and other crops for the market is ensured. Prabhavati has also leased a small plot on sharecropping basis to grow groundnuts for the market. When an attempt was made to count all the crops grown by her on the small farm, more than 50 crops could be counted. Fuel wood and small timber needs were also met by the bamboo grown. In addition there were three buffaloes and four goats. Last but not the least important component of Prabhavati's success is how she makes judicious use of local resources to provide her farm inputs and does not purchase any fertilizers or pesticides from the market. She and her family prepare their own compost. Here also they improvise - when they could not easily buy cement for the composting tank, they made do with branches and bamboos from their own field. To prepare pest-repellants, Prabhavati uses neem and dhatura plants as well as cow's urine. Her main cash expense is on diesel for the borewell.

Prabhavati inherited a field of low fertility, but her farming methods have improved the fertility of soil. This was achieved at a time when elsewhere complains of nutrient depletion of soil are common. Prabhavati has also trained other women in organic farming practices, something she has gained knowledge about after nearly 13 years of such farming. The pattern of successful organic farming followed by Ramrati in Sarpathan village (Campereganj block) is somewhat similar. Using her one-acre farm in a very careful way, Ramrati and her husband Rambahal are able to provide nutritious, wholesome food to their 12-member family throughout the year, and in addition earn a monthly average income of Rs. 3000. Ramrati, like Prabhavati, clearly plays a leadership role in the farm. She also uses innovative ways for getting her banana (and other fruit) crop market-ready so that the use of harmful chemicals can be avoided. In recent years, Ramrati has emerged as a much-in-demand master-trainer of sustainable mixed farming.

Similarly, Dhaneshwari and Sonpati of Avadhpur village, Shanti Devi of Dudhai village as well as other women farmers of this area have rich experiences of low-cost, environment-friendly highly diverse and productive farming. What is common to all these women is that they were all contacted some years back by Gorakhpur Environmental Action Group (GEAG).

Adapted from Bharat Dogra, : The Hindu, April 29, 2012
(<http://www.thehindu.com/news/states/other-states/article3366889.ece>)

5. The Disaster Risk Reduction Project³⁴

For developing villages as “live models” on adaptation, demonstrating all adaptive measures and practices undertaken by most vulnerable section of communities in response to minimizing the impacts of Climatic Change (i.e. flood or drought) of that region, GEAG implemented the “Disaster Risk Reduction” project in five Gram Panchayats (GPs) of Campierganj Block of District Gorakhpur and 15 GPs of Block Mehdawal of District Sant Kabir Nagar. This project was supported by Oxfam India, Lucknow.

The two blocks are situated 35km and 23 km respectively from the district headquarters. Campierganj block is bounded on the east by the rivers Rohin and Rapti on the east and west. To the north are numerous forests and streams. Mehdawal Block is bounded by the Rapti on the north-east and the Bakhira lake on the south. Small and marginal farmers comprise 40 per cent of the Block's cultivators and 60 per cent of the lands are flood and water logging affected. Construction of roads ignoring the geographical features and raising the height of the embankments increases the woes of the farmers in the project area. Just a few hours of rain leads to water logging without floods. The farmers' Kharif crop often gets destroyed. Sometimes the Rabi yields too are poor. Mass migration of able bodied men is now routine from the villages. The region is plagued by all the problems discussed in Section 2. Needless to say, in such a situation the women suffer the most.



³⁴The data and figures in this section are from the GEAG data bases.

In keeping with its past practices, in this project too GEAG's approach was institutional. Essentially, four kinds of committees or associations, comprising 15 to 20 women each with their presidents and vice-presidents and treasurers were formed, with the women, making their own rules and regulations. These committees were :

- ♦ Agriculture and Livelihoods
- ♦ Health and Sanitation
- ♦ Disaster Management
- ♦ Thrift and Credit

It is not that men have been excluded. These committees are inclusive but the leadership is given by the women. The respective committees have been trained in improved low external input agriculture, health and sanitation and also how to manage flood emergencies by GEAG. All this was done after collecting the baseline data through surveys, participatory resource appraisal, wealth ranking and so on in all the project villages. These exercises also served to establish rapport with the villagers.

Within the short span of the project that was initiated in 2008, the results have been impressive indeed. GEAG's 2010-11 annual report lists the following key activities and achievements:

5.1 : Agriculture and Food Security

- ♦ 402 farmers could enhance their income by 25 to 30 per cent through time and space management of their agricultural land
- ♦ 285 farmers of targeted GPs have gone for soil testing, thus, saving Rs.54300 and 172 farmers prepared their own organic pesticides, thus, saving Rs.14,276 from extra input cost. 400 farmers used their own seed production for wheat cultivation and saved Rs. 11,700.
- ♦ 443 farmers sold 20.8 quintals of stored grains and earned Rs.1,00,800 and enhanced their economic status. Twenty one farmer's families stored 29.5 quintals of grains and distributed 3 quintals of grains to needy families and saved Rs.1500.
- ♦ In 10 GPs of Mehdawal, wheat seeds(3.30 quintals), sufficient for 153 farmers holding 96 acres of land for Rabi crops, mustard (5 quintals), groundnut (2.5 quintals) and maize (3.5 quintals) and all the seeds(1.3 quintals)are stored by 53 farmers
- ♦ 412 farmers and 213 farmers of 20 GPs have stored grains and seeds in grain banks and seed banks by forming committees
- ♦ In Sanhre-kalan, the Purvanchal Grameen Bank issued 218 Kisan Credit Cards in 5 GPs and loaned them after getting premium for crop insurance.

5.2 : Disaster Risk Reduction Strategies

- ♦ Four committees and a group have been formed to manage disasters.
- ♦ Twenty six farmers of three GPs of Campierganj and two GPs of Mehdawal have grown *jallahari* (paddy) in seven acres of water logged land and secured food for two months
- ♦ In the project villages, 219 farmers have grown early variety paddy on 83 acres of land and produced 209 quintal of grains before the floods and secured the livelihood of 150 farmers, 625 farmers have been growing vegetables and 288 farmers have produced vegetables before floods from 88 acres of land and earned Rs.1500- Rs.2000 per month each.
- ♦ Flood relief and protection team is linked with state and local administration. Police administration employed 10 members for five days for kartik purnima fair and paid Rs 7500.
- ♦ Temperature and rain measurement instruments and a first aid kit are made available in new GPs. Five women and five men have been trained to use them.
- ♦ 475 farmers of 20 GPs have planted 2200 Sagon and 1020 Guava plants for environment conservation.
- ♦ The sand deposited for the last 25 years in the old Rapti river bed was cleaned freeing 1500 acres of agricultural land from water logging and thus, enhancing capacity of 500 farmer households to cultivate two-three crops a year.
- ♦ State, Blocks and District level workshops were organized with Government officials of respective levels to discuss disaster risk reduction.

5.3 : Preparedness for Safe Health

- ♦ 10 immunization camps for animals were organized in targeted villages immunizing 2818 animals of 1820 small and marginal farmer households.
- ♦ An immunization campaign was launched in 10 GPs of Campierganj benefitting children, youth and pregnant women.
- ♦ Bleaching powder was sprayed and chlorine tablets have been distributed by the Health department in three steps as a pre-disaster preparation in all the targeted villages.
- ♦ Raised hand pumps are ready for providing clean drinking water to 4500 vulnerable families. 278 hand pumps have been chlorinated.

5.4 : Income Generation Activities

- ♦ Two hundred families have earned around Rs. 10000 to Rs. 12 000 in a year through poultry rearing and Rs. 4500 has been earned by 5 farmers through pisci-culture. There is approximately 30 per cent increase in number of livestock. Animal husbandry has strengthened 30 days livelihood of about 2200 families. 150 farmers/milk producers are linked with Parag dairy and have increased their earning by Rs. 100 per day per person.
- ♦ Ten percent among most vulnerable small marginal farmers of all targeted villages are involved in mixed farming in order to reduce the damage of crops due to disasters.
- ♦ Thirty households have reduced three months food gap by integrated farming. Forty farmers have earned an additional Rs. 12,000-Rs. 15,000 a year through multilayered cropping.
- ♦ In the entire targeted areas of the project, 60 percent tasks under NREGA are generated keeping in view disaster risk reduction.
- ♦ 240 families have grown six quintals of mushrooms and had balanced diet for two months and excess was sold to earn Rs. 7750. Two hundred fifty most vulnerable farmers of 20 GPs have enhanced their economic status by 30 per cent as agricultural labourers for multilayered, integrated and mixed farming. Migration and vulnerability are reduced among 250-300 families.

5.5 : Success Stories

In the field, success stories galore. There is Arti Devi, 37, of Karmaini village of Mehdawal, of the Dhobi caste, who is a member of the village disaster management committee and runs the village resource centre. Her household of seven owns just 1.20 acres of land, but 1.10 acres are flood prone lowlands. The grain bank she initiated has 29 members, all of them economically poor farmers. These people each save about eight kgs of foodgrains a year. In times of scarcity, people borrow it at the *sawa* 25 (per cent) rate, that is for every 10 kg grains borrowed, the repayment is 12.5 kgs. The surplus at the end of the year is sold and goes as the financial savings of the group. So far they have saved Rs 5400 in the bank. Sometimes, non-members too are lent grains, and that has contributed Rs 32000. But more than the enhanced food security and monetary gains, it's the highly increased self confidence and morale that is important. Says Arti, "We don't have to beg from the rich upper caste Thakur farmers any longer. They would charge exorbitant rates of interest, short change us and on top of it humiliate us. This is our committee and we own it. Nobody can dictate terms to us".

Similarly, there is Savitri from Campienganges Makhnaha who has adopted several models of agronomic practices including the multi-tiered one to grow vegetables successfully. Kewla Devi, of Sanhre-Kalan too has adopted such practices and has achieved success.

The women mention how they have impacted policies and state practices by influencing the NREGA in their areas. In Sanhre-Kalan, they narrate how a 1.5 km stretch of the Rapti was cleaned of silt and encroachment by the Thakurs. The silt was used to level lowlands and a drainage channel was made to link the river to the Muhia nala. Rajmati Devi led the effort. She says that this stimulated the poor of adjacent villages like

Sanhre Khurd, Gaila, Jabbar and Bhandare. The overall impact has been that some 500 households, cultivating 700 acres have gained as the accumulated water stays for at the most a week in contrast to the two months earlier. There are stories on health and sanitation and disaster management. The women excitedly narrate what they learnt at the various training programmes but say that since the training programmes fortunately no major disaster has struck. Yet the trainings has helped avert major personal tragedies. Villagers were taught how to respond to snakebites during floods. Says Urmila Devi, “ This training helped me save my daughter-in-law who was bitten by a poisonous snake on 29th September, 2011. I used the snake kit to give her first aid and took her to the hospital after that. A life was saved. We are grateful to GEAG for that.”

But what is most impressive about these narratives is the sheer level of exuberance and the confidence the women show. Many of them would go into hiding leave alone speak at the very sight of a stranger before the project. The empowerment of these women is palpable and cannot be missed. Do they have land in their own names? It was not necessary to ask them. These women have started to take control over their lives and have earned respect. They have found themselves.

6. Lessons Learnt for Successful DRR interventions

GEAG has successfully demonstrated many practical actions, ranging from agronomic practices to information management and dissemination or enhanced agro-based livelihood opportunities in adapting to disasters or reducing their impact significantly. These techniques have been fine tuned over the years and documented. Like almost every other CSO in the country and many state organs, it forms women's groups and works through them. In fact many NGOs in UP are working on the same issues, ostensibly following similar strategies. So what is different about GEAG?

A closer look at some of these efforts, both of the state and CSOs reveals that typically such efforts seek to organise the women around particular activities, the most common being micro-credit, “treating them as autonomous individuals, rather than as social beings”³⁵ embedded in particular social structures. The interventions are mostly “premised on a 'deficit' model, providing women with resources and skills they 'lack' and which can help 'empower' them. The groups are mostly add-ons, and not an integral part of their lives, “meeting only when the CSO facilitator visits the village, instead of serving as solidarity groups.”³⁶ Such groups disintegrate once the project is over.

While GEAG too suffers from the working within the limits of a project cycle or two, the formation of groups ensures that the processes it has set up continue even after the project is over. Indeed, the project and related activities seem to be entry points to organise the unorganised. GEAG plays a mentoring role and does not spoon feed. In the case of the DRR project for instance, the women showed a strong sense of ownership of activities, processes and institutions. Indeed, some major lessons can be learnt from these experiences for a gendered approach to DRR.

³⁵Rao, 2008, op cit, p. 37.

³⁶Ibid.



Thus, the most important lesson that can be derived from GEAG's experience is that equitable and democratic gendered institutions need to be set up that are owned and belong to the constituency, in this case women, with the external agency playing a mentoring role. These institutions are pivotal in actualizing the rights of the poor and the women, and are vital to the processes of achieving social, political and economic empowerment, that is so critical in the attainment of DRR.

The importance of recognising the women as full social beings cannot be stressed enough. GEAG in this project as well as in all its interventions, seeks to give women full social membership and in doing so enable them to establish their identities. This comes through its ideological beliefs and notions of gender and caste equality. This is the second lesson that can be derived its experiences. Without this, it will not be possible to actualise DRR in a rights framework.

A equally critical lesson is that instead of adhering to stereotypes of division of work, with men being given and recognized as performers of productive roles and women reproductive ones, GEAG has recognized and established the roles of women in productive work. By recognising and upholding women as farmers, and this naming is important, it has given women identity and voice. The women bring in their own knowledge and pick and choose the best of contemporary knowledge systems according to their specific need, working in solidarity groups.

The mere existence of rules/laws or even a legal framework, though necessary is not sufficient to actualize women's rights. The rule of law needs to be established and along with that good governance, accountability and transparency. The state has failed in this regard, but the women in their own spheres have been able to establish a rule of law and ensure good governance, accountability and transparency. The economic activities are nested within that and have to be viewed in conjunction with the social gains. This is the ultimate test of sustainable adaptative processes. Indeed, sustainability is a process and not an end in itself. It is only through the adoption of such social models can the poor and the women in eastern UP build up resilience and adapt to climate change and reduce the risk of disasters.

7. Conclusions

GEAG's interventions, including in the DRR project mentioned above, has unleashed a wave of assertion by the hitherto excluded. Women have often taken a lead in the processes. The interventions have highlighted the principle that the environment is best managed by the local people as their lives depend on it. In this case the people are the women. Development is a complex process with deep local manifestations, but by facilitating the women to form their own institutions, rules and regulations, GEAG has enabled the women to include themselves in the development process. The basics are good governance, accountability, transparency and equality, and this has to form the cornerstone of any DRR strategy. The recognition of women in their productive work, as farmers, has created a sense of belonging and built up identities. GEAG has sided with the women in their struggle for identities, hence its popularity and acceptance.

Yet, GEAG too suffers from the limitations of project funding and cycles. The DRR project for instance, has been of a rather short duration, given the needs of the people. Several second generation issues now need to be addressed and perhaps GEAG with the people's institutions could work out how to address them. Some of these issues include:

- ◆ Sanitation : Most of the households defecate in the open but are too poor to build toilets. Linkages with the state agencies through the institutions may be necessary. Sanitation poses major technological challenges too as many of the villages are underwater during the floods and the poor seek shelter on the embankments. Construction of toilets in/around the residential units might not be useful.
- ◆ Education of children suffers a lot during disasters. Even during normal times the delivery of education in the local government schools is of poor quality. The School Management Committees (SMC) are weak. Could the women's institutions take a more active interest in this area?
- ◆ Despite the tremendous innovation shown by the women in enhancing agri-horticultural production, they do not get remunerative prices for their output. This is because they still face the market as individuals. Can the institutions collectivise the producers to face the market on their terms?
- ◆ With enhanced incomes, dowries for daughters and alcohol consumption by men can adversely impact the gains the women have made. Proactive steps are needed to prevent this.

The people's institutions will have to find solutions to the above issues. However, none of this is to say that the effort or the gains have not been successful. Sustainability has been assured by the inclusive processes followed and the facilitation of women's leadership.

Gorakhpur Environmental Action Group (GEAG) is a voluntary organisation working in the field of environment and sustainable development since 1975. Ever since its inception, GEAG has been actively engaged in implementing several development projects addressing livelihood issues of small and marginal farmers, particularly women, based on ecological principles and gender sensitive participatory approach. Besides, GEAG has accomplished several appraisals, studies, researches at the micro & macro levels as well as successfully conducted a number of capacity building programmes for various stakeholders including women farmers, civil societies groups and government officials etc.

Today, GEAG has established its identity in North India as a leading resource institution on Sustainable Agriculture, Participatory approaches, methodologies and Gender. Acknowledging its achievements, efforts and expertise, United Nation's Economic and Social Council (ECOSOC) accorded GEAG special consultative status in the year 2000. GEAG has also been recognised recently as North India hub for InterSard, South Asia- a network to facilitate information sharing on issues of concern.



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**BUILDING IDENTITIES
AND RECOGNISING
WOMEN AS PRODUCERS**
A Strategy for disaster Risk Reduction