



# Situation of Adolescent Girls in Disasters

The State of the Girl Child in India 2013



because **I am a Girl**





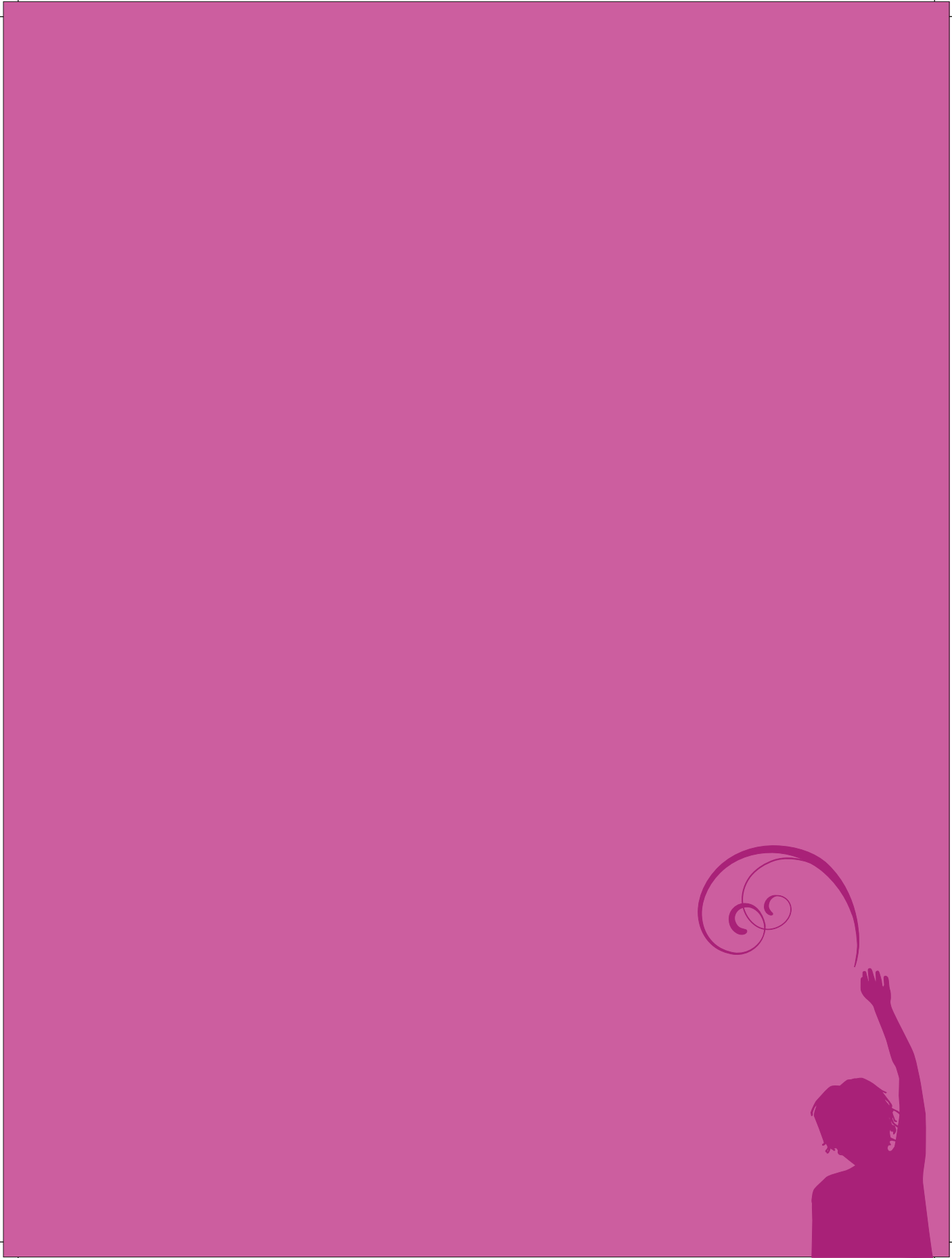
An illustration depicting a flood scene. In the foreground, a small, partially submerged house with a brown roof is surrounded by blue water. A white cow is swimming in the water nearby. In the background, a larger white building with a broken window stands amidst the flood. Two children, a boy in a green shirt and a girl in a blue shirt, are sitting on a log or piece of debris in the water. The sky is dark and rainy, with rain falling on the water and buildings. The overall scene conveys the impact of a natural disaster on a community.

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## Foreword

The frequency and intensity of disasters around the world and in India has increased significantly in the recent past. India, particularly, has witnessed many disasters of varying intensity in the past decade or so, such as the Gujarat earthquake of 2001, Tsunami of 2004, Kashmir earthquake of 2005 or the most recent flash floods of Uttarakhand and Cyclone Phailin in Odisha and Andhra Pradesh, leading to massive destruction of life and property. Till recently, the approach to disaster management has been reactive and relief centric. However, a paradigm shift is now taking place at the national level from relief to holistic and integrated approach with emphasis on prevention, mitigation and preparedness. These efforts are aimed to conserve developmental gains and also minimize losses to lives, livelihood and property.

With the enactment of the Disaster Management Act, 2005 and establishment of the National Disaster Management Authority and National Institute of Disaster Management, Government of India has taken the lead at the national level to support this paradigm shift.

Disasters affect all sections of the population with the same magnitude. However, its impact differs and varies with respect to certain vulnerable sections. It has been reported and observed that during disasters, children, adolescents, physically disabled, old and infirm get particularly affected and face severe physical, emotional and psychological hardships. The reasons are manifold and complex in nature. Further, with the growing frequency and intensity of disasters, it is becoming imperative to develop an informed understanding of the impact of disasters on various vulnerable groups to guide planning, programme designing, policy formulation and its implementation. This would, in turn, help in reaching out to the unreached vulnerable sections of the population and in effectively developing institutional mechanisms for creating strong support structures.

In this context, it is encouraging that Plan India has undertaken a national study to assess the situation of adolescent girls in disasters. This focused study, undertaken in four disaster prone states of Andhra Pradesh, Bihar, Rajasthan and Uttar Pradesh, is a unique initiative and will significantly contribute to the knowledge base on understanding the role, response and development needs of adolescent girls in disaster situations.

We, at Plan India, stand committed to working with adolescent girls and promoting their needs, concerns, protection and development issues in humanitarian and development programmes.



Govind Nihalani  
Chair – Governing Board  
Plan India



## **Acknowledgment**

Plan India acknowledges Nielsen India and its team of researchers for undertaking the national study on Situation of Adolescent Girls in Disasters. A special acknowledgement to all the Plan India state teams and partners in Andhra Pradesh, Bihar, Rajasthan and Uttar Pradesh for giving their dedicated time for facilitating and supporting the research team. The active engagement of community people (especially, adolescent girls and boys) in villages, where the study was conducted, is highly appreciated. We thank them for being patient respondents and giving their valuable perceptions and insights without which this study would not have taken a concrete form. Plan India would like to thank the Programme Strategy and Policy team at India Country Office - Meena Narula, Murali Kunduru, Subrata Banerjee and Sapna Rawat for working tirelessly in directing, guiding and facilitating the national study for its successful completion.



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A photograph of three young girls standing in a shallow body of water, likely a pond or a slow-moving stream. The girl on the right is wearing a green sari with a gold border and is carrying a large, decorated pot on her head. The girl in the center is wearing a pink and yellow sari and is also carrying a pot on her head. The girl on the left is wearing a black headscarf and a light blue sari. They are all looking towards the camera. The background shows some trees and a clear sky. The water is calm, reflecting the girls and the sky.

# EXECUTIVE SUMMARY





## Background

Because I am A Girl (BIAAG) is a global campaign initiated by Plan in 2007 to promote girls' rights and draw attention to issues that adversely impact their survival, protection, development and participation. Aligned with this theme, Plan India conducts an annual research with specific focus on girls. Till date, Plan India has released four reports, covering the areas of gender discrimination in schools, vulnerabilities that girls are exposed to in the fast changing urban landscape and in digital arena, roles boys and men can play towards achieving gender equality and opportunities and challenges faced by adolescents in gaining skills for life. The fifth in the series, in 2013, Plan India conducted a study on the situation of adolescent girls in natural disasters. The aim of this report is to understand the situation, issues and challenges faced by girls in aftermath of natural disasters.

## Objectives of the Study

The Annual Report on the State of the Girl Child aims to develop programmatic and policy recommendations to improve the support to adolescent<sup>1</sup> girls facing disasters. The specific objectives of the study are as follows:

1. Document disaster risk analysis in the states of Andhra Pradesh, Bihar, Rajasthan and Uttar Pradesh.
2. Identify factors that adversely affect adolescent girls' right to survival and protection during disasters and existing support structures and coping mechanisms for adolescents during such times.
3. Suggest programming and policy recommendations in regard to the same.

## Study Approach

The overall task of the assignment is to carry out a situational analysis of adolescent (10-19 years) girls facing disasters, for the development of programmatic and policy recommendations to improve support and disaster preparedness. The study entails following research approaches:

- Desk Research
- Quantitative Research through primary survey
- Qualitative Research
  - a. In-depth Interviews with key stakeholders
  - b. Village level Checklist
  - c. Focus Group Discussions with target respondents



## Study Coverage

The report focuses on the states with high incidence of natural disasters: Bihar, Rajasthan, Uttar Pradesh and Andhra Pradesh. While Uttarakhand was one of the selected states for the primary survey, being prone to landslides and earthquakes, in view of the recent disaster, termed as the 'Himalayan Tsunami' the state was excluded from the main survey. Subsequently, a short documentation on the impact of Uttarakhand disaster on adolescents was undertaken.

In each of the four states, two districts have been selected based on the vulnerability towards disaster and frequency of occurrence. One district where Plan India is implementing programs and one non-intervention district was selected for the study. Purposive sampling was done so as to gain an understanding of the challenges and afflictions faced by adolescents living in disaster affected/ prone areas. In all, eight districts were selected for the study.

Two blocks were selected from each district and 20 villages were selected from each block. 15 adolescent girls and 5 adolescent boys were interviewed from each village for the quantitative survey purpose. Also, 16 Focus Group Discussions were conducted, comprising of 8 adolescent girls group and 8 adolescent boys group spread across the four states.

## Limitations of the Study

The major limitations of the study are as follows:

- Though the states were being selected for specific disasters, that is, Rajasthan for drought, Andhra Pradesh for cyclone and Bihar and UP for floods, penetration of other disasters was also noticed in these states.
- While the state of Rajasthan was selected as a drought-prone state, no major drought was found to occur in Rajasthan in the last 5 years.
- Since the respondents, who are all adolescents, were asked about the last major flood, a problem of 'recall' was noticed among the respondents.
- In Uttar Pradesh, natural flooding was not being observed. Floods were reported through breaching of banks, breaking of dams and penetration of upstream river water into low-lying areas.

## Salient Findings

### Respondent Profile

- **Age:** All adolescents interviewed for the study were in the age group of 10-19 years. In Bihar and Rajasthan, a ratio of 40:50/45:55 was maintained while in Andhra Pradesh and Uttar Pradesh, 59% and 63% girls were interviewed in 15-19 years age group respectively.
- **Marital Status:** More than four fifth of adolescent boys and girls interviewed were not married. In Rajasthan and Uttar Pradesh, around 12% of the girls reported of being married but "gauna" not been performed yet.



- **Educational Attainment:** In Rajasthan and Bihar, more than one tenth (14%) adolescent girls were illiterate (4-5% in Uttar Pradesh and Andhra Pradesh). Most girls had completed primary or middle education in Rajasthan, Uttar Pradesh and Bihar. Educational attainments were higher in Andhra Pradesh and nearly half the adolescent girls (51%) had completed secondary or higher secondary education.
- **Caste:** Nearly half the adolescent boys and girls interviewed for the study belonged to other backward castes followed by scheduled castes. Andhra Pradesh had higher percentage of adolescents belonging to scheduled castes (34%) and scheduled tribes (13%).
- **Religion:** More than four fifth of the adolescents were from Hindu families. In Bihar, 18% of adolescents were Muslims while in Andhra Pradesh 10% adolescents were from Christian families.
- **Main Occupation of the Household:** Nearly half the adolescents belonged to households pursuing agricultural (50%) or casual labour (42%). Only 8% confirmed that their families were engaged in skilled labour activities.

#### Occurrence of Disaster in the Past Three Years

- Annual occurrence of floods during past three years was reported in Uttar Pradesh, Bihar and Andhra Pradesh, occurrence of drought was reported in Rajasthan. Uttar Pradesh however, reported highest incidence of floods followed by Bihar.
- Majority of the respondents (46%) reported a disaster in 2012 as the one that affected their lives in the most adverse manner. In Bihar, the most devastating disaster was reported in 2011. The occurrence of disaster was linked with the monsoon season by most of the adolescent girls.

#### Incidence of Gender Inequities: Workload Distribution Post Disasters

- Nearly four fifth (81%) of the girls in Bihar, more than 50% in Uttar Pradesh and Andhra Pradesh and 35% in Rajasthan opined that there were gender inequities during times of disasters.
- More than 40% of the girls in Rajasthan, Uttar Pradesh and Bihar cited that girls are more vulnerable during disasters as they are weaker than boys, the corresponding proportion being found to be lower in Andhra Pradesh (18%).
- More than 50% boys and girls in Rajasthan and Uttar Pradesh opined that girls had to share more responsibility of work, while in Andhra Pradesh 45% of adolescents of both sexes and in Bihar 41% girls and 13% boys opined the same.
- More than 40% boys and girls in Rajasthan and Andhra Pradesh mentioned that preferential treatment was given to boys over girls during times of disasters. In Uttar Pradesh, about one third boys and girls opined the same.
- In Bihar, more than half the adolescent girls interviewed (57%) reported that they were more vulnerable to abuse at times of disasters while in Uttar Pradesh 48%, in Andhra Pradesh 45% and in Rajasthan 26% of the girls reported the same.





## Survival

### Access to Shelter

- About one third of the adolescent boys and girls in Rajasthan (41%) and Andhra Pradesh (36%) reported having “pucca” houses, while in Bihar and Uttar Pradesh, the corresponding proportion was found to be much lower (10-15%).
- Nearly one fourth of these adolescents in Bihar mentioned that their houses were completely destroyed, while in Andhra Pradesh, 24% reported minor damages to their houses as after-effects of disasters.
- Amongst adolescents reporting damage to homes owing to floods (in Uttar Pradesh, Bihar and Andhra Pradesh), mostly the families stayed away from their house in shelters or with neighbours/relatives.
- Access to government buildings, makeshift shelters was minimal and 11% adolescent girls recalled accounts of living under the sky for first three days after the disaster.
- Post three months of a disaster, more than 90% adolescent girls and boys (82% adolescent girls in Bihar) were living in their own homes after three months of disaster.
- Nearly four fifth adolescent girls in Uttar Pradesh, Bihar and Andhra Pradesh agreed that disasters had an adverse impact on their access to safe shelter. They suffered from lack of privacy, dignity at home or relief camps after disaster.

### Access to Food

- In a post disaster situation, 39-47% girls in the four states (Rajasthan: 39%; Uttar Pradesh: 43%; Bihar: 46%; Andhra Pradesh: 47%) reported consuming two to four meals a day.
- Availability of food declined post three days of disasters in some states (in Bihar, 67-74% adolescent girls and boys confirmed availability of adequate food). However, this improved over time and 83-96% adolescent girls and boys confirmed availability of food after three months in event of a disaster.
- In Rajasthan, in a drought year, the accessibility of food up to six months was reported by 95-96% adolescent boys and girls.
- Gender bias in terms of access to food was reported by less than one third adolescent girls across all four states, inequities being higher in Bihar, Uttar Pradesh and Andhra Pradesh as compared to Rajasthan.
- To meet the food requirements following a disaster, nearly two third of the girls in Uttar Pradesh, Bihar and Andhra Pradesh shared that they used additional stock of food available at home during the first three days of a disaster.
- Post three months, the families had to resort to borrowing money or taking up additional work to meet the food requirement.

### Access to Drinking Water

- Tube well/bore well was reported to be the most common source of drinking water in Bihar



(99%) and Uttar Pradesh (98%). In Rajasthan, besides tube well/bore well (41%), river/dam/lake/surface water was the second most common source of water (21%), while in Andhra Pradesh the major source of water was piped water supply (61%).

- Majority of the girls (80-95%) in Uttar Pradesh, Bihar and Rajasthan reported adequacy of water for bathing, cleaning and laundering in the first three days and up to three months post disaster.
- In Andhra Pradesh while 55% of the girls reported of adequacy in the first three days, this figure increased to 83% for adequacy up to three months.
- Usage of home-based water filtration system was found to be common in Rajasthan where 87% adolescent girls reported using a cloth to filter drinking water.
- More than 90% adolescent girls in Bihar (93%) and Uttar Pradesh (96%), and 58% in Andhra Pradesh mentioned that they did not adopt any filtering technique.

### Access to Sanitation Facilities

- Access to functional toilets (individual) was found to be low in all states. Only 17% adolescents reported access to functional toilets. Variation in terms of access to toilets in normal times and during disasters was found to be minimal across states.
- Both adolescent girls (70% or more) and boys (80% in Rajasthan, Uttar Pradesh and Bihar and 62% boys in Andhra Pradesh) opined that girls are especially hard-hit by lack of sanitation facilities at times of disasters as they cannot go for open defecation and are confronted with privacy issues.
- Lack of privacy and problems during menstruation were reported by 31% adolescent girls across all states.
- More than 70% adolescents reported having access to bedding and blankets even up to three months post a disaster. Around 80% of the adolescents also mentioned having access to basic utensils and fuel materials for cooking.
- Over two third adolescent girls in Uttar Pradesh, Bihar and Andhra Pradesh (46% in Rajasthan) agreed that girls were adversely affected in accessing sanitation facilities post disasters.

### Health Needs

- Access to any health sub-centre was confirmed by 65% of the adolescents in Rajasthan and 23% of the adolescents in Uttar Pradesh, while in Bihar and Andhra Pradesh it was reported by less than one fifth of the adolescents.
- Access to primary health care centre was confirmed by 44% of the adolescent boys and girls in Uttar Pradesh followed by 33% of the adolescents in Rajasthan, while in Bihar and Andhra Pradesh the figure was less than 20%.
- In Uttar Pradesh more than half of the adolescents mentioned about the presence of a private clinic/doctor or a local doctor, while in Bihar private clinics and doctors were reported as the major medical facility by 46% of the adolescents.



- In Andhra Pradesh, about one third (30%) of the adolescents mentioned about the absence of any medical facility, while only 28% of them reported the existence of private clinic/doctor in their village or locality.
- In the first three days post disaster, it was found that fever and cough/cold were the most common diseases reported by girls in Uttar Pradesh, Bihar and Andhra Pradesh (46-63%).
- In Rajasthan, 85% of girls reported of having received treatment for all the ailments up to three months mainly from the community health centres and private clinics.
- Adolescent girls' awareness regarding HIV/AIDS was found to be less than 20% for Uttar Pradesh and Bihar, while the corresponding figure in Andhra Pradesh was 41% and Rajasthan 21%.
- Post disaster, the usage of absorbent in the first three days increased and in Uttar Pradesh (78%), Bihar (35%) and Andhra Pradesh (85%) girls used cloths/rags as a menstrual absorbent.
- More than half of the girls in all the states agreed that girls had to suffer more during disaster when they undergo menstruation, as changing and cleaning becomes difficult in absence of toilets.

### Development

- In Uttar Pradesh, Bihar and Andhra Pradesh, more than 60% of the girls reported of not being able to attend schools and colleges as these areas were found to be severely affected by floods and cyclones.
- In Andhra Pradesh, 20% of the girls reported of dropping out of the school after disaster as compared to 5% of the boys.
- Amongst reasons cited for missing school, in Bihar, Uttar Pradesh and Andhra Pradesh, damage to the school building was cited as the most common reason.

### Protection

#### Engagement of Girls in Household Chores

- More than 90% of the girls in Rajasthan, Uttar Pradesh and Bihar and around 82% of the girls in Andhra Pradesh performed household chores in normal days. Almost similar proportion of the girls, in all the four states, reported of doing the same work even after the disaster.
- Only about one tenth (14%) adolescent girls and less than a tenth of adolescent boys in all the four states reported of any form of force or pressure from the family members to work either to contribute to income flow or take up household responsibilities.
- One fifth or more adolescents reported that in situations of disaster, girls were more burdened with additional responsibilities (Bihar: 20%; Uttar Pradesh: 26% and Andhra Pradesh: 45%).





### Incidence of Abuse

- In the study states, one fifth of the girls in Uttar Pradesh (21%), and about one third in Bihar (34%) reported being subject to physical abuse at home and in school.
- One fifth of the girls in Rajasthan and Uttar Pradesh reported that girls were at more risks to physical punishment than boys. In Bihar, nearly half the girls reported that both boys and girls were at equal risks.
- Fear of being married off early was held by 45-58% adolescents, Rajasthan (45%), Andhra Pradesh (50%) and Bihar (58%). More than one fourth of the girls in Bihar and Andhra Pradesh feared of being sold off or trafficked post a disaster.

### Psychosocial Health of the Adolescents

- More than one third of the adolescent girls (Andhra Pradesh: 38%; Rajasthan: 45%; Uttar Pradesh: 50% and Bihar: 60%) agreed that girls were psychosocially affected in the aftermath of a disaster.

### Participation

#### Role of Adolescents

- In the four states, more than 80% adolescents, both boys and girls, reported that they did not play any specific leadership role during or after disaster. In Bihar and Andhra Pradesh, around one tenth of the boys and girls reported assuming roles of being the head of their households post disaster.
- More than four fifths of the adolescent girls (90%) and adolescent boys (88%) confirmed that they had not received any kind of training to execute any leadership role in the event of a disaster.
- Training and capacity workshops at school, Panchayat or any other government established structure was reported to be useful by adolescents in Rajasthan and Uttar Pradesh.

#### Disaster Preparedness in the Villages

- Only a minimal 3% adolescent girls and boys across the four states reported that their village or school was equipped with any preparedness plan (Rajasthan: 7%; Uttar Pradesh and Bihar: 2% and Andhra Pradesh: 4%).
- Negligible percentage of adolescent boys and girls (0.1-1.7%) across the four states reported any mock drills being organised in their villages or schools.
- Around 23% of the adolescent boys and girls across all the four states reported of having the required mental strength to handle the after-effects of any disaster, the highest proportion being reported in Rajasthan (42%).
- Of all the adolescent boys and girls interviewed across the four states, 50% boys and 46% girls confirmed that they received support from their families including meeting their survival needs (boys: 52% and girls: 62%), emotional support (boys and girls: 54%) and care and nursing (boys: 53% and girls: 43%).



- Only 9% adolescent girls and 16% adolescent boys confirmed that they received any kind of support from their peers in the form of emotional support and counselling, support in survival and for care and nursing.
- In the four study states, overall less than 10% of adolescent girls reported receiving any help from community members after disaster.

## Conclusion

It is not hard to understand that disasters have adverse effects on the lives of the people that are impacted by it. Throughout the report it has been witnessed that girls have been greatly disadvantaged by their gender positions. However, it is the double discrimination of gender and age that makes them far more vulnerable in the aftermath of a disaster and thereby reduces their chances of survival.

It is easily understandable why girls are more vulnerable than boys in a disaster situation and the need to develop rescue, rehabilitation and protection measures that must take into account the needs and vulnerabilities of this section of the population. Adolescents can also contribute to the disaster rescue and preparedness and involving them in the process maybe instrumental in reducing the adversities caused by these situations.





**BACKGROUND**





India is among the world's most disaster-prone areas<sup>2</sup>, ranking eleventh<sup>3</sup> out of the fifteen countries of the world that face extreme disaster risk. It is vulnerable to windstorms spawned in the Bay of Bengal and the Arabian Sea, earthquakes caused by active crustal movement in the Himalayan mountains, floods brought by monsoons, and droughts in the country's arid and semi-arid areas. Almost 57% of the land is vulnerable to earthquakes (high seismic zones III–V), 68% to droughts, 8% to cyclones and 12% to floods. Exposure to multiple hazards further compounds the effects of persistent poverty, complex social stratification, and vulnerabilities. According to the Centre for Research on Epidemiology of Disasters, 80% of geographical area in India is exposed to major and localised natural hazards: 57% Earthquakes, 27% Droughts, 12% Floods and 8% Cyclones.

Available data, though limited, indicates that women are more likely to die than men after a large scale disaster owing to social and cultural reasons and existing gender norms. Women and girls experience intangible losses, such as the loss of health and wellbeing. They are subject to a number of secondary or indirect impacts that arise from the event, including violence and trauma, pressure to marry early, loss or reduction in education opportunities and an increase in their workload. Women and girls also tend to have less access to or control over assets, including the resources necessary to cope with hazardous events, such as information, education, health and wealth. Thus they may suffer a 'double disaster' and these more intangible impacts may be the real 'disaster' for women and girls<sup>4</sup>.

Plan's Because I am A Girl (BIAAG) global campaign was initiated in 2007 to promote girls' rights and draw attention to issues that adversely impact their survival, protection, development and participation. As a part of the Campaign, in addition to various programming and advocacy efforts during the past six years, Plan releases a 'State of the Girl Child' report annually. The aim of this report is to understand the situation, issues and challenges faced by girls in specific contexts. The results are shared and disseminated with wider audience from the development space for necessary call for action and advocacy. Till date, Plan India has released four reports, covering the areas of gender discrimination in schools, vulnerabilities girls face in the fast changing urban landscape and in digital arena, roles boys and men can play towards achieving gender equality and opportunities and challenges faced by adolescents in gaining skills for life.





## State of the Girl Child: Annual Reports

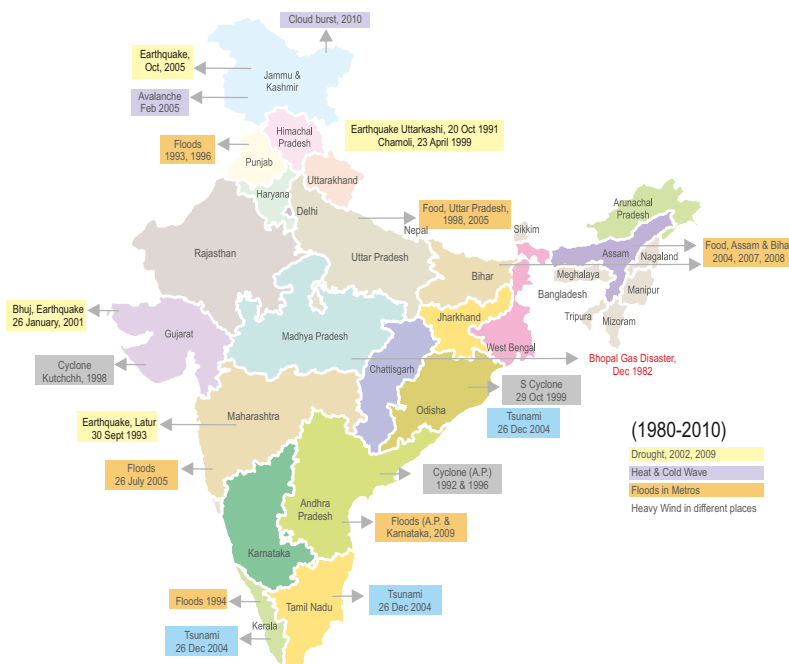
Year	Annual State of the Girl Child Report and its Themes
2009	Gender Discrimination: Its Impact on Girls' Schooling (Gender Discrimination in School Education)
2010	Girls in Changing Landscape: Urban and Digital Frontiers (Lives of adolescent girls in urban environment and the space of Internet and mobile communications)
2011	Engaging Men and Boys towards Gender Equality in India
2012	Adolescents: Learning for Life (Opportunities and Challenges)
2013	Situation of Adolescent Girls in Disasters

The 2013 annual report is focused on the **Situation of Adolescent Girls in Natural Disasters**.

## Natural Disasters in India

During the past decade India has experienced many major devastating natural disasters. In certain geographies, people continue to live in a situation facing disasters frequently owing to floods, droughts etc. (Figure 1).

### Major Disasters in India from 1980-2010



Source: National Institute of Disaster Management



The nature and extent of damage owing to disasters in the past 20 years is summarised in Table below;

#### Major Natural Disasters in India in last 20 years (1994 – 2013)

Sl. No.	Disaster	Date	Lives lost	People Affected (in millions)	Damage (million US\$)
1	Flood	May-94	2,001		
2	Flood	Sep-95	1,479	32.7	
3	Storm	Nov-96			1,500
4	Flood	Sep-97	1,442	29.2	
5	Extreme temperature	May-98	2,541		
6	Storm	Jun-98	2,871		
7	Flood	Aug-98	1,811	29.2	
8	Flood	Sep-99		22.1	
9	Storm	Oct-99	9,843		2,500
10	Drought	Apr-00		50	
11	Flood	Aug-00		22	
12	Flood	Sep-00		24.6	
13	Earthquake (seismic activity)	Jan-01	20,005		2,623
14	Flood	Jun-02		42	
15	Drought	Jul-02		300	
16	Flood	Jun-04		33	2,500
17	Earthquake (seismic activity)	Dec-04	16,389		1,023
18	Flood	Jun-05			2,300
19	Flood	Jul-05			3,330
20	Earthquake (seismic activity)	Oct-05	1,309		
21	Flood	Jul-06			3,390
22	Flood	Sep-09			2,150
23	Flood	Sep-10			1,680

Source: EM-DAT: The Office of Foreign Disaster Assistance/Centre for Research on Epidemiology of Disaster, International Disaster Database



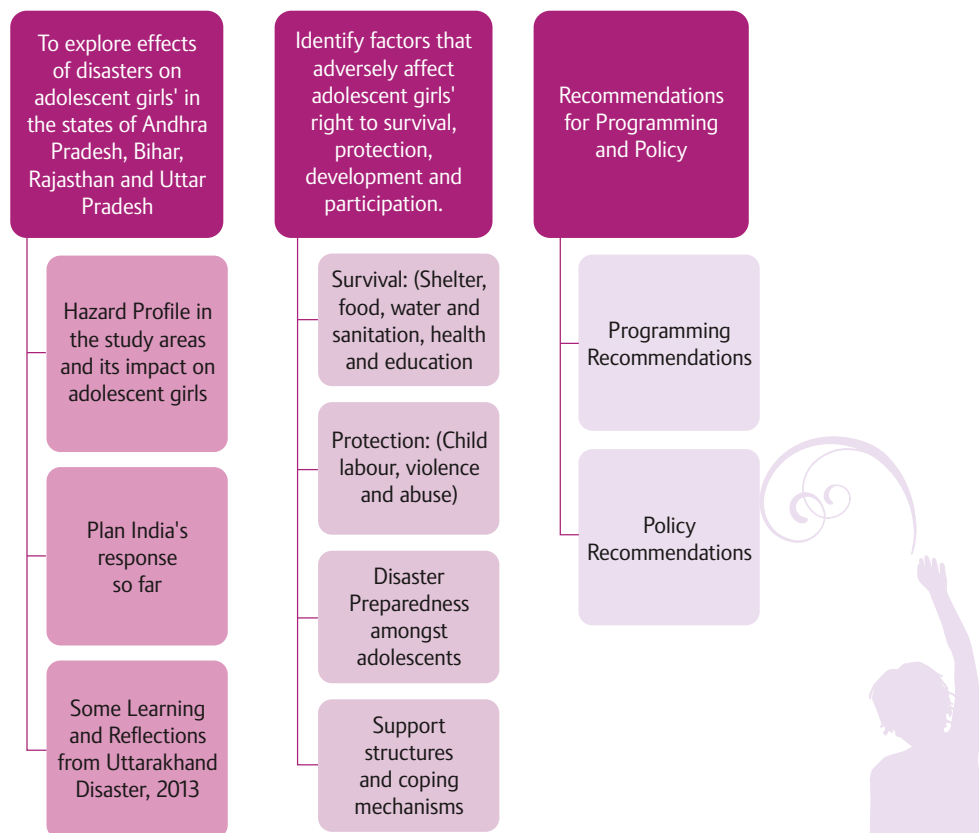
## Objectives and Scope of the Study

### Key Objectives

1. To explore effects of disasters on adolescent girls' in the states of Andhra Pradesh, Bihar, Rajasthan and Uttar Pradesh.
2. Identify factors that adversely affect adolescent girls' right to survival and protection during disasters and existing support structures and coping mechanisms for adolescents during such times.
3. Suggest programming and policy recommendations in regard to the same.

### Scope of the Study

The key areas studied under each of the objectives are summarised below:





## Study Coverage

The report focuses on the states with high incidence of natural disasters: Bihar, Rajasthan, Uttar Pradesh and Andhra Pradesh. While Uttarakhand was one of the selected states for the primary survey, being prone to landslides and earthquakes, in view of the recent disaster, termed as the 'Himalayan Tsunami' the state was excluded from the main survey.

## Plan India's Work in Disaster Risk Management

Since 2010, Plan India has responded to ten disasters including the recent Uttarakhand flash floods. Plan India's current Country Strategic Plan is committed to ensuring right to life with dignity during emergencies. Plan programs in eight states focus on strengthening community, staff and implementing partners' capacities on disaster risk reduction and preparedness. In almost all natural or manmade disasters, children and adolescents, especially girls are most vulnerable to abuse and exploitation

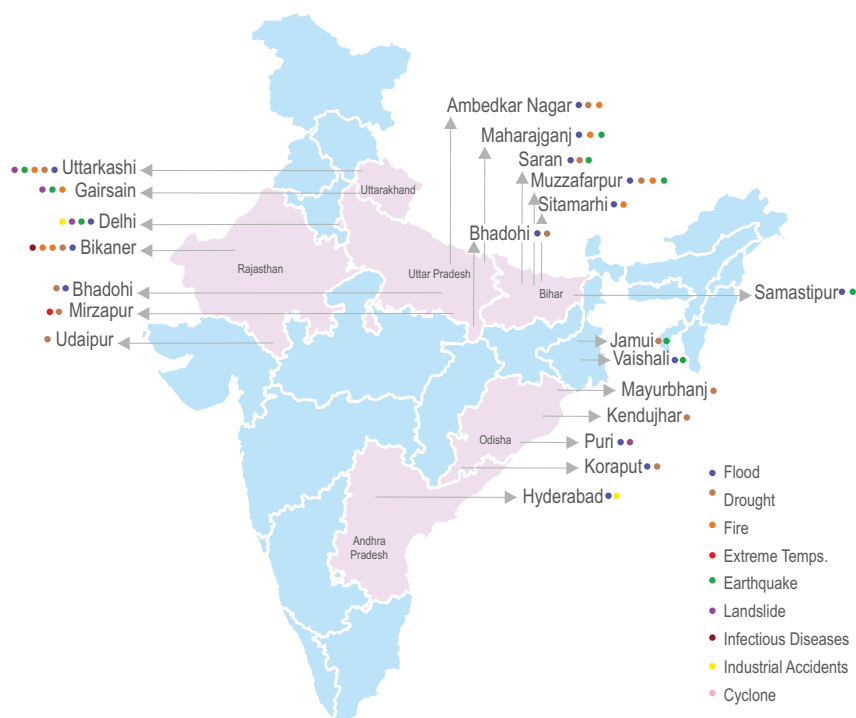
and are being forced into anti-social groups/vulnerable professions. Some of the key strategies adopted by Plan India towards ensuring children and adolescents are protected at times of disasters include:

## Community-Centered Protection Mechanism

Plan India has been strengthening community-centered prevention and response to sexual violence as part of the child protection programmes. In states, where Plan India has specific expertise in working with survivors of sexual violence, programming for children at risk of, or survivors of sexual violence as needed and appropriate is also considered. Plan India is committed to prevent and respond to physical violence and harmful practices against children and adolescents especially in emergency situations. In all response situations, Plan has worked closely in collaboration with local authorities and government, civil society organisations and communities to ensure that its approach is appropriate, effective and sustainable in the longer term.



## Nature of Disasters in Plan India's Operational Areas



### Hazard Profile of the Study States

**Earthquakes (Bihar and Uttar Pradesh):** More than two third of India's land mass (68%) is prone to earthquakes. Amongst the earthquake-prone areas, 12% is prone to very severe earthquakes, 18% to severe earthquakes and 25% to damageable earthquakes. In the last century India has seen several earthquakes over 6.0 on the Richter Scale which have caused despair to 27 million<sup>5</sup> people. The Himalayan regions and the urban centers around the Himalayas and their foothills are particularly prone to extensive damage and loss from earthquakes.

**Floods and Flash Floods (Bihar, Uttar Pradesh, Andhra Pradesh and Rajasthan):** About 30 million<sup>6</sup> people are affected annually by floods. Floods in the Indo-Gangetic-Brahmaputra plains and delta are an annual feature and can range from minor localised flooding to major multi-district (Kosi floods in Bihar in 2008) or multi state/country floods (Assam, Bengal and Bangladesh in 2007). The Krishna and Godavari plains also flood often depending on seasonal rainfall and dam management. The five-river plains of Punjab are also flood prone. On an average, a few hundred lives are lost, millions are rendered homeless - displaced between a few weeks to permanently and several hectares of crops are damaged every year. In the more recent past, severe and at times, unseasonal rainfalls have led to flash floods in Ladakh, South India, Rajasthan and Uttarakhand causing extensive damage to livelihoods and assets.



**Droughts: (Uttar Pradesh, Rajasthan and parts of Andhra Pradesh):** About 50 million people are affected annually by drought. Of approximately 90 million hectares of rain-fed areas, about 40 million hectares are prone to scanty or no rain. Rainfall is often poor in nine meteorological subdivisions in India across the Thar Desert, parts of the Deccan Plateau and central India particularly Bundelkhand, eastern Madhya Pradesh, parts of Chhattisgarh, interior Odisha, and Telangana. The Western and Eastern Ghats running parallel to the coastline also face the problem of droughts in the rain shadow areas.

**Landslides:** Occur often in the hilly regions of India and have been exacerbated with development of urban centers in the Himalayas, North-East India, the Nilgiris and Eastern and Western Ghats. They also occur frequently as secondary hazards following heavy rainfall, flash floods and earthquakes. Their impact, though severe in most cases, tends to remain localised and not extensive.

**Cyclones (Andhra Pradesh):** About 8% of the land is vulnerable to cyclones, of which coastal areas experience two or three tropical cyclones of varying intensity each year. Cyclonic activities on the east coast are more severe than on the west coast. With the coastline running for 7,600 kilometers, the coastal regions of the country together with the island regions are regularly at risk to cyclones. Most frequently Andhra Pradesh, parts of coastal Tamil Nadu and Odisha are affected by cyclones and much has been done for preparedness in these states. West Bengal, Konkan region and Gujarat are also sporadically affected by cyclones. Other forms of windstorms occur in western and northern India but have not been known to impact human lives too adversely.

## Selection of Districts and Blocks

In each state, two districts had been selected for the purpose of this study based on the vulnerability towards disaster and frequency of occurrence. One district where Plan India is implementing programs and one non-intervention district was selected for the study. Purposive sampling was done so as to gain an understanding of the challenges and afflictions faced by adolescents living in disaster affected/ prone areas. In all, eight districts were selected for the study.

In each selected district, two blocks that are highly prone to as well as have a historical record of being affected by disasters were selected. In total 16 blocks were selected across eight districts from four states for the purpose of the study.





## Geographical Coverage for Primary Survey

States	Districts		Blocks	PSU / Villages
	Without Plan Intervention	With Plan Intervention		
1. Bihar	1. Saharsa		Nuahatta Mahisi	20
		2. Muzaffarpur	Bochaha Katra	20
2. Rajasthan	3. Jodhpur		Bilara Osian	20
		4. Bikaner	Lunkaransar Chattargarh	20
3. Andhra Pradesh	5. Nellore		Kavali Allur	20
		6. Visakhapatnam	Koyyuru Pyakaraopet	20
4. Uttar Pradesh	7. Gorakhpur		Bageswar Garud	20
		8. Maharajganj	Gairsen Laximpur	20

## Sampling Framework: Villages and Respondents

The study focused on the rural and urban areas which were affected by natural hazards and the sample villages and households have been selected using Probability Proportionate to Size (PPS) sampling method.

Twenty interviews of adolescents were conducted in each village out of which 15 were girls and remaining 5 were boys.

In order to arrive at a meaningful sample, a minimum size of 600 adolescent girls at 95% confidence level with 5% level of error and a design effect of 1.5 had been taken. A

sample of 200 adolescent boys was taken at 95% confidence level with 8.5% level of error and a design effect of 1.5. Purposive selection of vulnerable groups, such as physically challenged, HIV affected or sponsored girls from Plan India programme areas was carried out in each location from the total sample, wherever available.

Structured Questionnaires and Focused Group Discussions were used for interactions with adolescent girls and boys.



## Sample Spread for Quantitative Study



Study Groups	Number of respondents						
	Per State		Per District (2 Districts selected in each state)		Per Block (2 blocks selected from each district)		Per Village (10 villages selected from each block)
	Household Survey	FGDs	Household Survey	FGDs	Household Survey	FGDs	Household Survey
Adolescent Girls	600	2	300	1	150		15
Adolescent Boys	200	2	100	1	50		5
Total sample of adolescent girls for all four states	2400	8					
Total sample of adolescent boys for all four states	800	8					

Following tools were developed to administer the study:

Structured questionnaire for quantitative survey

Open-ended discussion guidelines for focus group discussions and in-depth interviews



The tools were then translated in Hindi for the states of Bihar, Rajasthan and Uttar Pradesh and in Telugu for the state of Andhra Pradesh.

The study tools were developed through a rigorous process of pilot testing.

## Structure of the Report

The report has been presented in three key sections:

**Section 1:** This section lays the context of the report, study area and sampling framework for the study.

**Section 2:** This section outlines the key findings on the state of adolescent girls in a disaster situation in terms of survival and protection issues.

**Section 3:** This section outlines the key programming and policy recommendations.



A photograph of two women in traditional Indian clothing standing in a dry, dusty environment. One woman is wearing a red and blue sari, and the other is wearing a red and white sari. They are standing near a thatched hut made of sticks and branches. The ground is sandy and there is some dry vegetation in the background.

# KEY FINDINGS OF THE STUDY





Adolescents, both girls and boys are vulnerable at times of disasters. They are often forced to take on roles ideally to be performed by adults. Lacking skills, such as cognitive, emotional or psychological maturity to cope with such circumstances, coupled with near absence of structures that are expected to advise and protect them, they are most vulnerable in situations of disasters. Disasters pose greater dangers for girls, as they may lack these skills and awareness of redressal mechanisms along with no say in decisions that affect them for the rest of their lives. Intervention, such as ensuring continuing education, protection and empowerment are not at the center of programming immediately after disasters, as immediate relief and response activities focus on rescue and saving lives and reconstruction.





## Defining disasters

A serious disruption of the functioning of a community or a society involving widespread human, material, economic or environmental losses and impacts, which exceeds the ability of the affected community or society to cope using its own resources. Disasters can be caused by natural or human factors or a combination of both. The present study focuses on disasters caused by natural factors. (UNISDR. 'Terminology.' UNISDR, <http://www.unisdr.org/we/inform/terminology>)

## Who is an adolescent?

The United Nations Convention on the Rights of the Child (UNCRC) defines a child as anyone under the age of 18. While adolescence is difficult to define, not least because individual experiences of puberty vary considerably, the general understanding is that an 'adolescent' is someone between the ages of 10 and 19, divided into 'very young adolescent' (10 to 14 years), 'middle adolescent' (15 to 16 years) and 'older adolescent' (17 to 19 years). For the purposes of this report, a 'girl' is a young female up to the age of 18 and a 'young woman' up to 24.

World Health Organisation (WHO) defines adolescence both in terms of age (spanning the ages between 10 and 19 years) and in terms of a phase of life marked by special attributes. These attributes include:

- Rapid physical growth and development
- Physical, social and psychological maturity, but not all at the same time
- Sexual maturity and the onset of sexual activity
- Experimentation
- Development of adult mental processes and adult identity
- Transition from total socio-economic dependence to relative independence

To distinguish adolescents from other similar (and sometimes overlapping) age groupings, which however differ in these special characteristics, WHO has also defined youth and young people.

- Youth - persons between 15 and 24 years
- Young people - persons between 10 and 24 years

Adolescents (10 to 19 years) constitute about 23% (232 million) of India's population. Adolescent girls between 10 to 19 years constitute close to half (111 million) of this population group<sup>7</sup>. In view of limited researches that explore the extent and nature of vulnerabilities faced by adolescent girls or boys in disasters, Plan India commissioned a primary research amongst 2,392 adolescent girls and 808 adolescent boys (10 to 19

years) in the select states. Reflections and responses from 15 focus group discussions with adolescent boys and girls and with 176 village level key informants block and district level functionaries are also integrated in the report. The report covers four dimensions on survival, protection, development and participation to discuss the vulnerabilities and also resilience demonstrated by the adolescents in disaster contexts.



## Profile of Adolescents

- **Age:** All adolescents interviewed for the study were in the age group of 10-19 years. In Bihar and Rajasthan, a ratio of 40:50/45:55 was maintained while in Andhra Pradesh and Uttar Pradesh 59% and 63% girls were interviewed in 15-19 years age group respectively.
- **Marital Status:** More than four fifth of adolescent boys and girls interviewed were not married. In Rajasthan and Uttar Pradesh, around 12% of the girls reported of being married but “gauna” not been performed yet.
- **Educational Attainment:** In Rajasthan and Bihar, more than one tenth (14%)

adolescent girls were illiterate (4-5% in Uttar Pradesh and Andhra Pradesh). Most girls had completed primary or middle education in Rajasthan, Uttar Pradesh and Bihar. Educational attainments were higher in Andhra Pradesh and nearly half the adolescent girls (51%) had completed secondary or higher secondary education.

Amongst adolescent boys in all the four states, less than a tenth of them were illiterate. Most of them had completed primary or middle school education in Rajasthan, UP and Bihar. Educational attainment in Andhra Pradesh was highest with nearly half of the boys reporting completion of secondary or higher secondary education.

Figure 1: Age Profile of Adolescents

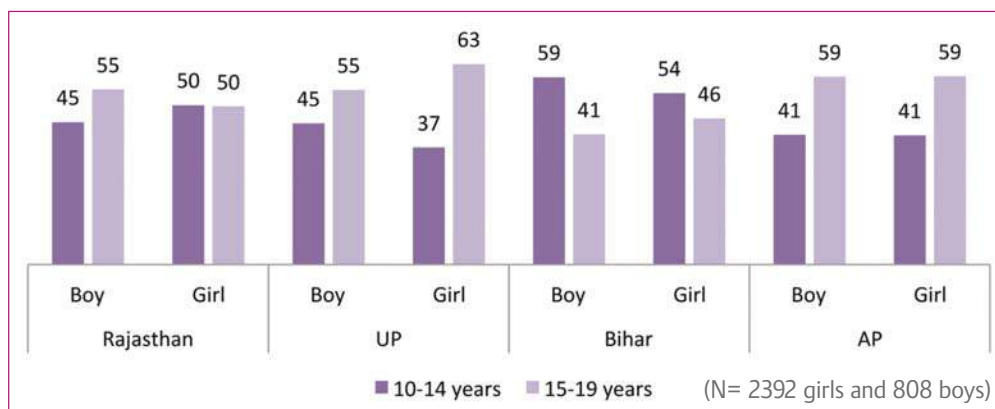




Figure 2: Marital Status of Adolescents (% Not Married)



Figure 3: Educational Attainment amongst Adolescent Girls

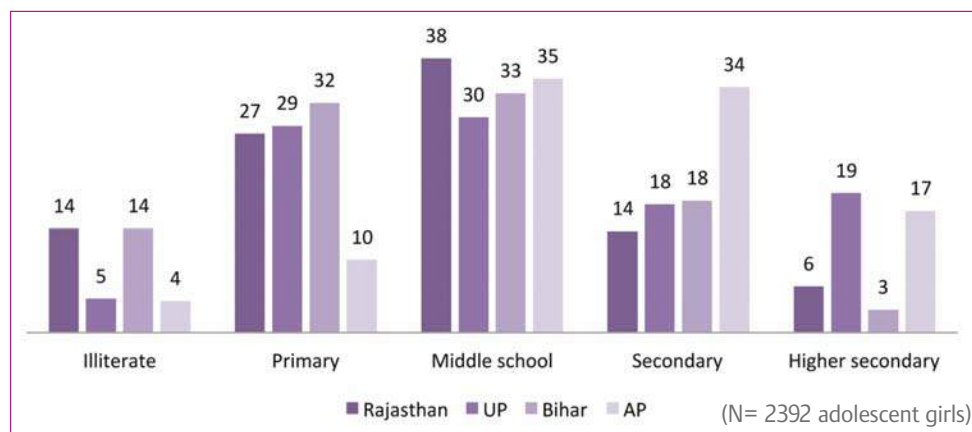
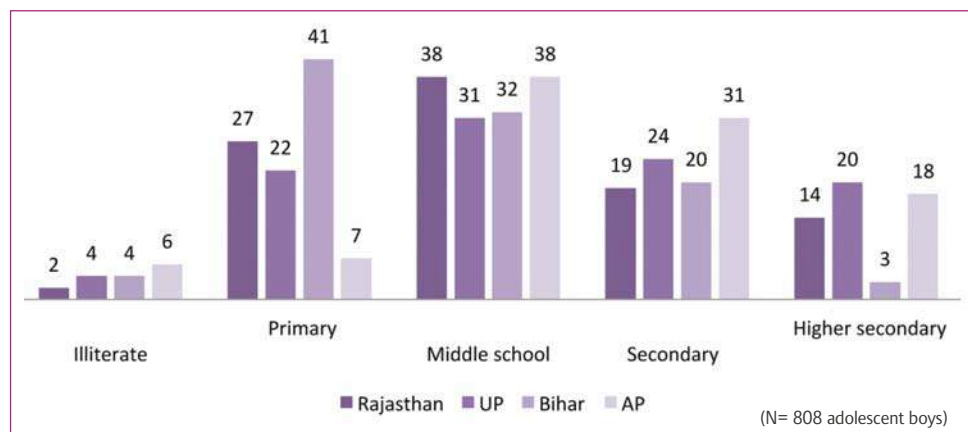


Figure 4: Educational Attainment amongst Adolescent Boys





- **Caste:** Nearly half the adolescent boys and girls interviewed for the study belonged to other backward castes followed by scheduled castes. Andhra Pradesh has higher percentage of adolescents belonging to scheduled castes (34%) and scheduled tribes (13%).
- **Religion:** More than four fifth of the adolescents were from Hindu families. In Bihar, 18 % of adolescents were Muslims while in Andhra Pradesh 10 % adolescents were from Christian families.

**Main Occupation of the Household:** Nearly half the adolescents belonged to households pursuing agricultural (50%) or casual labour

(42%). Only 8% confirmed that their families were engaged in skilled labour activities. Disasters, particularly floods and droughts have a serious implication on households pursuing agricultural occupation.

## Occurrence of a Disaster in Past Three Years

Annual occurrence of floods during past three years was reported in Uttar Pradesh, Bihar and Andhra Pradesh, and drought in Rajasthan. The frequency of floods was highest in Uttar Pradesh, where a disaster was reported each year followed by Bihar.

### Reported Frequency of Occurrence of a Disaster in the Last Three Years

Nature of Disaster	Average number of Disasters in Past Three Years			
	Rajasthan	Uttar Pradesh	Bihar	Andhra Pradesh
Flood	1	2.4	1.8	1.6
Cyclone	-	1.3	1.4	1.3
Drought	1.4	1.9	1.3	1.1



Most girls believe that the biggest impact of disasters is the damage to facilities.

While recalling the last major disaster, they shared accounts of village road, agricultural land and school buildings being damaged and families having to survive on the stocked food in the initial few days.





Majority of the respondents (46%) reported a disaster in 2012 as the one that affected their lives in the most adverse manner. In Bihar, the most devastating disaster was reported in 2011. Most of the girls attributed the occurrence of a disaster to the monsoon season (for excessive or lack of rains).

### Effects of Disaster on Adolescents

The report presents an analysis of the effects of disasters on adolescents within the framework of the four categories of rights under the Convention on the Rights of the Child – survival, protection, development and participation.

**Incidence of Gender Inequities Workload Distribution Post Disasters:** Various indicators related to discrimination faced by girls reveal that amongst the states visited, Bihar has a very discriminatory socio-cultural environment in comparison to the other states followed by Andhra Pradesh. In

Rajasthan and Uttar Pradesh there is a greater likelihood to involve girls in household work without subjecting them to excessive abuse. Nearly four fifth (81%) girls in Bihar, more than 50% in Uttar Pradesh and Andhra Pradesh and 35% in Rajasthan opined that there were gender inequities during times of disasters. Nature of discrimination cited is summarised below:

#### Perception that Girls are Weaker than Boys:

Amongst adolescent girls and boys confirming discrimination against adolescent girls, more than 40% of the girls in Rajasthan, Uttar Pradesh, and Bihar cited that girls are more vulnerable during disasters as they are weaker than boys (18% in Andhra Pradesh). This was reported by less than one fifth of the girls in Andhra Pradesh, whereas, as evident from the table a considerably higher proportion of (40% boys) reported the same as a cause of suffering for girls.

While disasters have a negative effect on everyone, women and adolescents are at a greater risk. The deep rooted gender and social norms make adolescents and women more vulnerable. Besides physical damage, disasters result in a wide range of intense, confusing and frightening emotions.





### Percentage Adolescents Opining that Girls are Weaker than Boys

States	Percent Adolescents	
	Boys Total N=378	Girls Total N=1384
Rajasthan	48	50
Uttar Pradesh	23	46
Bihar	28	49
Andhra Pradesh	40	18

**Girls Share More Work Responsibility during Disasters:** Amongst girls and boys reporting discrimination against adolescent girls, more than 50% boys and girls in Rajasthan and Uttar Pradesh opined that girls had to share more responsibility of work (Andhra Pradesh: 45% boys and girls and Bihar: 41% girls and 13% boys opined the same).

### Percentage Adolescents Opining that Girls Share More Responsibility at Work

States	Percent Adolescents	
	Boys Total N=378	Girls Total N=1384
Rajasthan	52	70
Uttar Pradesh	66	64
Bihar	13	41
Andhra Pradesh	45	45

**There is Preferential Treatment in favour of Boys during Disasters:** More than 40% boys and girls in Rajasthan and Andhra Pradesh mentioned that preferential treatment was given to boys over girls during times of disasters. In Uttar Pradesh, about one third boys and girls opined the same. In Bihar, few boys (6%) felt that there was any

preferential treatment towards them at times of disasters.

### Percentage Adolescents Opining that there is Preferential Treatment towards Boys at Times of Disasters

States	Percent Adolescents	
	Boys Total N=378	Girls Total N=1384
Rajasthan	55	43
Uttar Pradesh	32	36
Bihar	6	32
Andhra Pradesh	40	43

**Girls are Vulnerable to Abuse at Times of Disasters:** In Bihar, more than half the adolescent girls interviewed (57%) reported they were more vulnerable to abuse at times of disasters (Uttar Pradesh: 48%; Andhra Pradesh: 45% and Rajasthan: 26%). However, compared to adolescent girls, almost three fifth of the adolescent boys in Rajasthan reported that girls are more vulnerable to abuse during/after disaster. Across all states except Uttar Pradesh, a higher percentage of boys confirmed vulnerability of girls.

### Percentage Adolescents Opining that Girls are Vulnerable to being Subject to Abuse at times of Disasters

States	Percent Adolescents	
	Boys Total N=378	Girls Total N=1384
Rajasthan	59	26
Uttar Pradesh	41	48
Bihar	70	57
Andhra Pradesh	49	45

During focus group discussions, the adolescent girls shared that there is prevalence of discrimination in the community with respect to girls and boys even at normal times. During disasters, families tend to hold on to sons as they see boys as the future bread earners of the family and boys can go anywhere outside for work. Boys also tend to be the source of receiving dowry to support the family income at times of financial distress. However, girls are confined to household responsibility.

## Survival

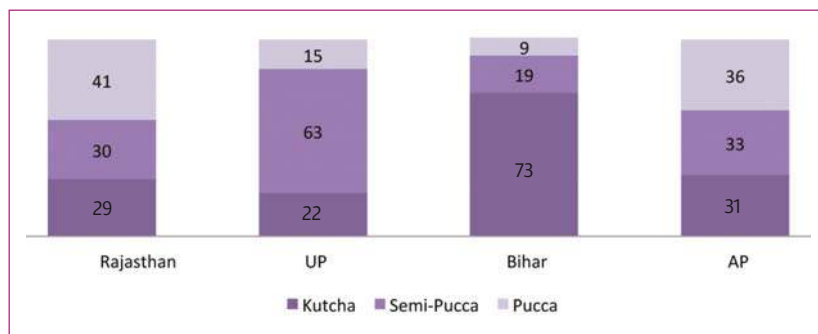
This section of the report examines how disasters affect the basic survival needs of adolescent girls. The key survival needs that were discussed with adolescents include shelter and shelter facilities, food, basic facilities, such as drinking water and sanitation and health facilities.

## Access to Shelter

Nearly all the adolescent girls and boys interviewed reported that they were living in their own houses. About one third of the adolescent boys and girls in Rajasthan (41%) and Andhra Pradesh (36%) reported having “pucca” houses. In Bihar and Uttar Pradesh, only 10-15% adolescents reported living in “pucca” houses.

More than half of adolescent boys and girls (55%) reported damage to their homes following a disaster. Nearly one fourth of these adolescents in Bihar mentioned that their houses were completely destroyed, while in Andhra Pradesh, 24% reported minor damages to their houses. Only about a tenth of adolescents in Rajasthan reported damage to houses due to disaster. This might be because the state is majorly affected by drought which does not cause damage to the house/shelter as compared to floods and cyclones.

Figure 5: Structure of Houses in which Adolescents Live



(Base: adolescent boys and girls 3200)



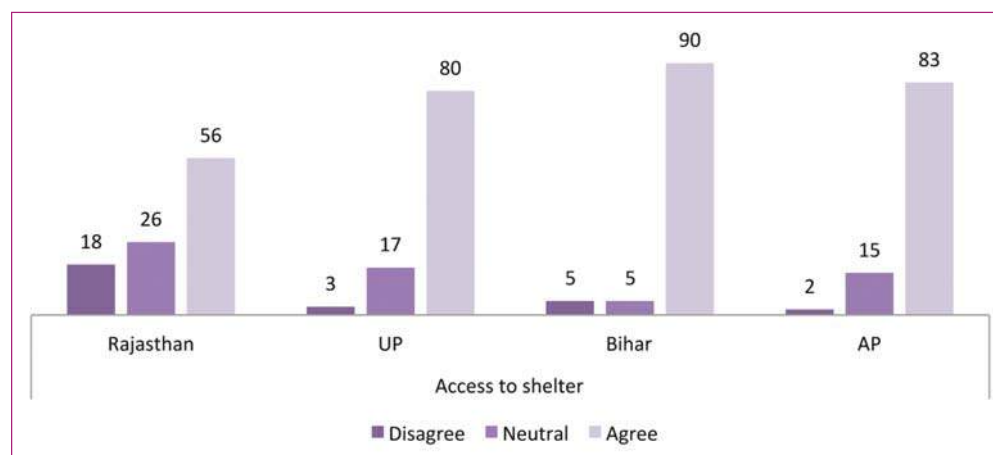
- Amongst adolescents reporting damage to homes owing to floods (in Uttar Pradesh, Bihar and Andhra Pradesh), mostly the families stayed away from their house in shelters or with neighbours/relatives.
  - One tenth (10%) adolescents in Uttar Pradesh, 25% in Andhra Pradesh and 32% in Bihar had to go away from their house to their neighbours/relatives place for shelter.
  - Access to government buildings, makeshift shelters was minimal and 11% adolescent girls recalled accounts of living under the sky for first three days after the disaster.
- Post three months of a disaster, more than 90% adolescent girls and boys (82% adolescent girls in Bihar) were living in their own homes.

When asked about the effects of disasters on their access to safe shelter, nearly four fifth adolescent girls in Uttar Pradesh, Bihar and Andhra Pradesh agreed that disasters had an adverse impact on their access to safe shelter. They suffered from lack of privacy and dignity at home or relief camps after disaster. The level of agreement was less for Rajasthan, compared to other states as drought does not adversely affect the access to shelter.

Adolescents reported that “we continued to stay in own homes”, girls recalled that, “we had to move to the roof post flooding. Our work and movement was limited to some parts of the house”. Those who stayed at relatives/neighbours’ homes shared that they were comfortable as they moved to these temporary safe places along with their parents.



Figure 6: Perceived Effect of Disaster: There is Reduced Access to Safe Shelter by Girls



(Base: adolescent girls 2392)



## Child Friendly Spaces (CFS) and Temporary Learning Spaces (TLS)

During various responses to natural disasters, Plan India has focused on setting up Child Friendly Spaces and Temporary Learning Spaces for children. Plan has coordinated closely with education and child protection factors for CFS interventions. Plan has successfully initiated education programs in emergencies with children and especially adolescent girls in all our response programmes.

Ms. Subhashree Jena, the facilitator for the CFS Programme in Achyutpur village, was apprehensive of handling the overwhelming response of 80 children, who turned up in the Center the very first day. However, she received support from the community members who cleaned the Center, made drinking water available to the children and even assisted the facilitator in ensuring hygiene habits. As the facilitator, she had discussed with the community two basic principles for children that would help in achieving the objective of the Center: neatly dressed and with well-combed hair. These were very well accepted by the community. Children enjoyed being in the CFS in Achyutpur, while half of them could return with inclination to the mainstream education process and attend school.

## Access to Food

The chaos of disasters, their impact on livelihoods and health put adolescents at greater risk of meeting basic dietary requirements. In situations of lack of food,

families often give priority to the elderly, infants and boys, leaving the girls ignored. The study gauged adolescent's access to a meal before and after a disaster, adequacy of meals and measures taken by families to arrange for food.

**Consumption of Meals and Adequacy of Food:** On any normal day, more than 85% of the adolescent girls in all the four study states confirmed that they consumed between two to four meals a day. In a post disaster situation, 39-47% girls in the four states (Rajasthan: 39%; Uttar Pradesh: 43%; Bihar: 46%; Andhra Pradesh: 47%) reported consuming two to four meals a day.

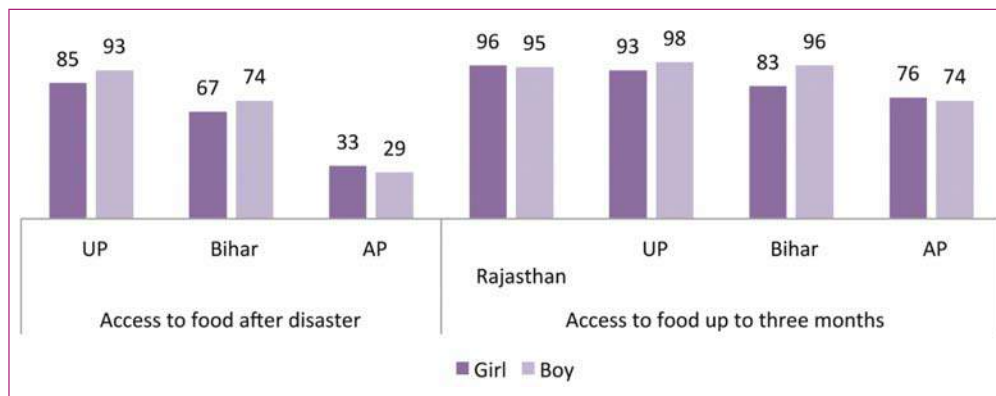
In terms of adequacy of meals, except Rajasthan where 75% of the girls reported that the quantity of food consumed is more than adequate, in Uttar Pradesh, Bihar around 85% of girls mentioned the quantity of food to be just adequate, while in Andhra Pradesh the same was reported by 69% the girls.

After three months of disaster, adequate access to food was reported by 60% girls and 63% boys. Availability of food declined post three days of disasters in some states (Bihar, where 67-74% adolescent girls and boys confirmed availability of adequate food). This improved over time and 83-96% adolescent girls and boys confirmed availability of food after three months in event of a disaster. Likewise, in Andhra Pradesh only 33% adolescent girls and 29% boys confirmed access to food in the first three days post a disaster. However, this vulnerability reduced over time and 74-76% adolescent girls and boys respectively reported access to food three months post the disaster. In Rajasthan, in a drought year, the accessibility of food up to six months was reported by 95-96% adolescent boys and girls.





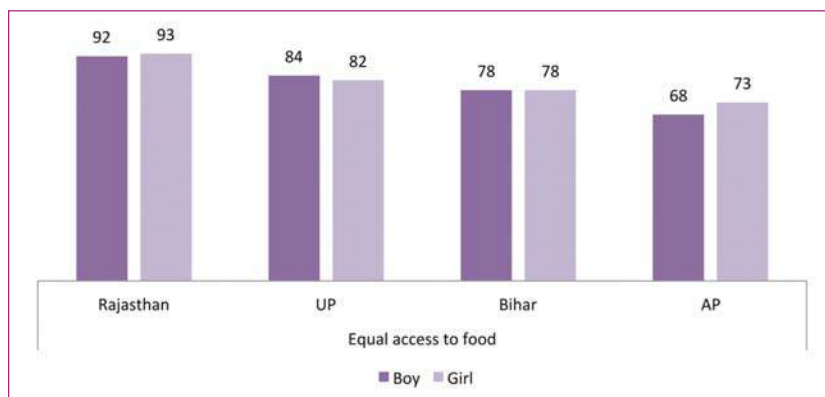
Figure 7: Percentage Adolescents Reporting Access to Adequate Food Post Disaster



(Base: adolescent girls 2392, adolescent boys 808)

Gender bias in terms of access to food was reported by less than one third adolescent girls across all four states, inequities being higher in Bihar, Uttar Pradesh and Andhra Pradesh as compared to Rajasthan.

Figure 8: Percentage Adolescents Reporting Equal Access to Food Post Disaster



(Base: In the first three days - adolescent girls 1311, adolescent boys 444 upto three months adolescent girls and boys: 3200)

Amongst girls who reported unequal access of food within the family, infants and children, elders in the family and men were given most preference. Preference for adolescent boys was found to be more prominent in Andhra Pradesh.

To meet the food requirements following a disaster, nearly two third girls in Uttar Pradesh, Bihar and Andhra Pradesh shared that they used additional stock of food available at home during the first three days of a disaster.



During focus group discussions, girls informed that they consumed home cooked food with the available rations and vegetables during disaster. Food items were mainly arranged by the family members by either borrowing money or utilising their savings.

Post three months, the families had to resort to borrowing money or taking up additional work to meet the food requirement.

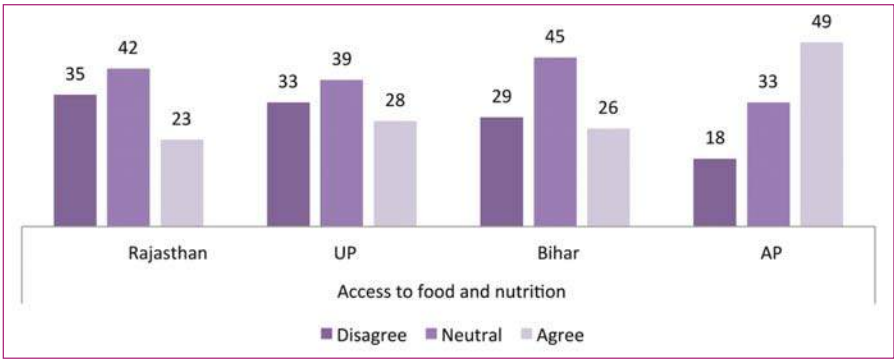
When asked about the effects of disasters on their access to adequate food, nearly half the adolescent girls in Andhra Pradesh confirmed that they are adversely affected. In the remaining three states, 23-28% adolescents felt vulnerable and opined that there is reduced access to food for girls post disaster.

“We borrowed money from other people and after some time we start working as a labour and then earn money and buy wheat and rice for our family. We had money with us and use to buy food from that money.”

- Adolescent girls - (FGDs) Bihar



Figure 9: Perceived Effect of Disaster: There is Reduced Access to Food by Girls Post Disaster



(Base: adolescent girls 2392)

### Access to Drinking Water

Much of the drinking water response at times of disasters is focused on providing a sufficient quantity of water, with perhaps less focus on quality. During disasters, household water treatment, including chlorination, filtration, solar disinfection and combined flocculation/disinfection, are effective in improving the microbiological quality of drinking water and thus preventing the risk of waterborne disease.

Water and water distribution systems are at risk of contamination at times of disasters. Tube well/bore well is reported to be the most common source of drinking water in Bihar (99%) and Uttar Pradesh (98%). In Rajasthan, besides tube well/bore well (41%), river/dam/lake/surface water was the second most common source of water (21%), while in Andhra Pradesh the major source of water was piped water supply (61%).



## Reported Sources of Drinking Water during Normal Days (Percent Adolescents)

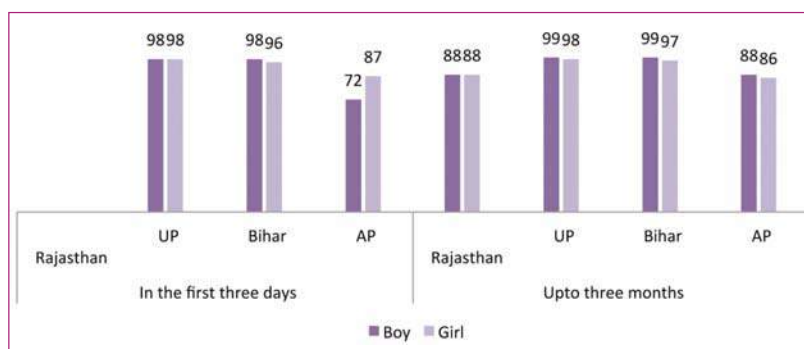
Sources	Rajasthan	Uttar Pradesh	Bihar	Andhra Pradesh
<b>Base (N)</b>	<b>800</b>	<b>800</b>	<b>800</b>	<b>800</b>
Piped water supply	15	-	1	61
Tube well/bore well	41	99	98	28
River, dam, pond, lake etc.	21	-	-	1
During a disaster ( first 3 days)				
<b>Base (N)</b>	<b>0</b>	<b>439</b>	<b>728</b>	<b>588</b>
Piped water supply	-	1	1	50
Tube well/bore well	-	99	92	47
River, dam, pond, lake etc.	-	-	6	3
During a disaster ( up to 3 months)				
<b>Base (N)</b>	<b>800</b>	<b>800</b>	<b>800</b>	<b>800</b>
Piped water supply	18	1	1	68
Tube well/bore well	42	99	95	38
River, dam, pond, lake etc.	24	-	3	8

The households continue to use these sources of water at times of disasters.

Majority of the girls reported adequacy of potable water in the first three days as well as up to three months. Most girls (90%) in Bihar and Uttar Pradesh reported that they continue to have access to potable water

after a disaster. In Andhra Pradesh, (72%) girls reported access to potable water during first three days of the disaster, the access to which improved over time. In Rajasthan around 90% of girls had access to potable water six months following a drought.

Figure 10: Percentage Adolescent Girls Reporting Adequacy of Potable Water Post Disaster



First three days: (Base: adolescent girls 995, adolescent boys 344)  
 Up to three months: (Base: adolescent girls 2118, adolescent boys 690)



Majority of the girls (80-95%) in Uttar Pradesh, Bihar and Rajasthan reported adequacy of water for bathing, cleaning and laundering in the first three days and up to three months post disaster. However, in Andhra Pradesh while 55% of the girls reported of adequacy in the first three days, this figure increased to 83% for adequacy up to three months.

Usage of home-based water filtration system was found to be common in Rajasthan where 87% adolescent girls reported using a cloth to filter drinking water. During FGDs, in Rajasthan, majority of the girls reported that drinking water was not clean and was full of dust/mud but they seldom used any purifying techniques. More than 90% adolescent girls, in Bihar 93%, Uttar

Pradesh 96% and 58% in Andhra Pradesh mentioned that they did not adopt any filtering technique. In Andhra Pradesh one fourth girls reported that they boiled water before use at times of floods/cyclones hitting the area.

## Access to Sanitation Facilities

In the aftermath of a disaster, access to basic facilities becomes the key for survival. The study probed availability of basic shelter facilities, food, sanitation, fodder for livestock and first aid kits post the recent disasters faced by adolescents. Other than basic shelter facilities and food, reportedly available to more than two thirds adolescents, access to all other facilities was limited.

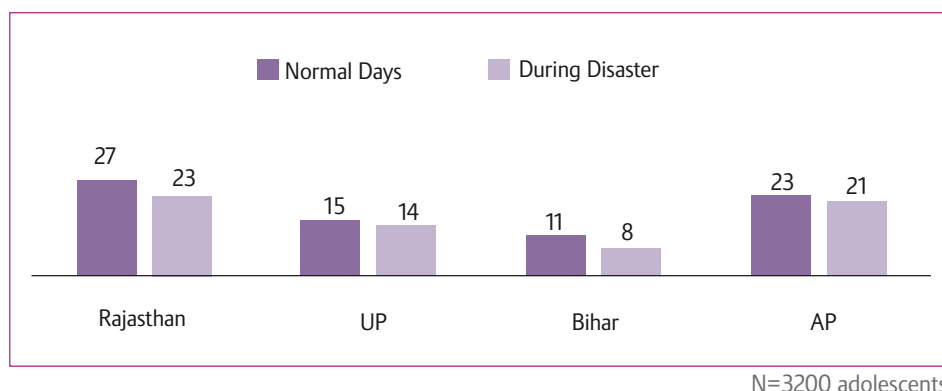
### Access to Basic Facilities during Emergency (in the first three months) (Figures in percent)

Facilities		Percent Adolescents
Shelter Facilities	Bedding	74
	Blankets	64
	Separate room for females	30
Food	Fuel for cooking	78
	Pot for cooking	82
	Basic utensils to eat	79
Sanitation	Toilets	16
	Soap and other basic toiletries like Toothpaste / Toothbrush / Comb	59
	Detergent	41
Livestock	Livestock accommodation	38
	Fodder	23
Others	First aid kit	9
	Lantern / Torch / Candle & Match box	59
N=Adolescents		



- More than 70% adolescents reported having access to bedding and blankets even up to three months post a disaster. Around 80% of the adolescents also mentioned having access to basic utensils and fuel materials for cooking.
- Fodder and shelter for livestock was reported by only 23-38% adolescents.
- Basic lighting facilities like candle and torch was available as per 59% adolescents.
- First aid kits were available to only 9% adolescents.
- Access to functional toilets (individual) was low in all states. Only 17% adolescents reported access to functional toilets. Variation in terms of access to toilets in normal times and during disasters was minimal across states.

Figure 11: Access to Own Toilets on Normal Days and During Disaster (in percent)



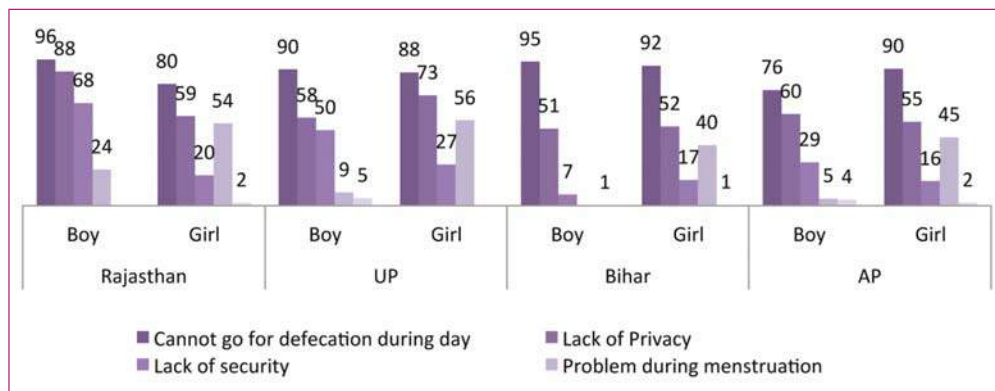
Open defecation is practiced by over three fourths adolescents. During heavy rains and cyclones, the drinking water sources get contaminated by the faeces due to open defecation, increasing hygiene problems and incidence of water borne diseases.

Both adolescent girls (70% or more) and boys (80% Rajasthan, Uttar Pradesh and Bihar and 62% boys in Andhra Pradesh) opined that girls are especially hard-hit by lack of sanitation facilities at times of disasters as they cannot go for open defecation and are confronted with privacy issues.





Figure 12: Vulnerability of Girls in Absence of Sanitation Facilities Post Disaster



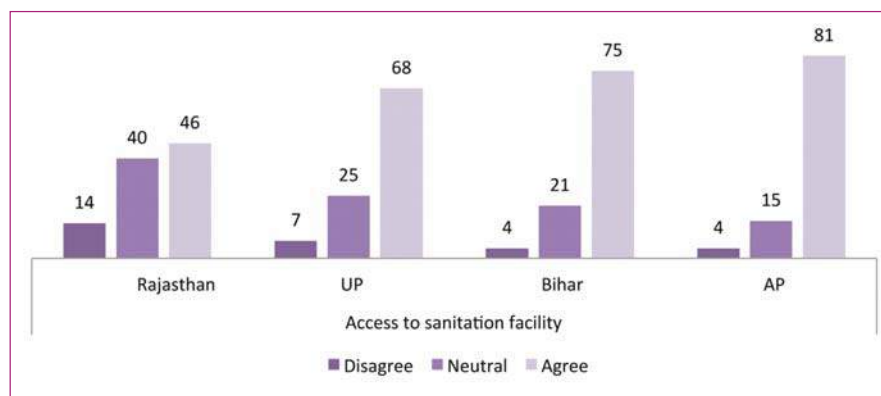
(Base: adolescent girls 1848, adolescent boys 652)

Qualitative findings suggested that majority of the girls in all four states reported of practising open defecation both in normal and post disaster situations. However, during disaster they face problems as the nearby farms are submerged in water and they have to travel long distances to avail sanitation facility, posing a threat to their security. More than 80% of the adolescent girls in all four states cited their inability to go for open defecation during day as a serious concern. Lack of privacy and problems during menstruation were reported by 31%

adolescent girls across all states. Girls shared that during menstruation there is a need for some amount of privacy in changing of the menstrual absorbent and maintaining hygiene which is difficult in absence of toilet facility.

Over two third adolescent girls in Uttar Pradesh, Bihar and Andhra Pradesh (46% in Rajasthan) agreed that girls were adversely affected in accessing sanitation facilities post disasters.

Figure 13: Perceived Effect of Disaster: Girls Suffer More on Account of Poor Sanitation Facilities



(Base: adolescent girls 2392)



## Health Needs

Disasters impact health and wellbeing of the effected populations. The impact may be direct (physical injury, infectious diseases, poor hygiene, reproductive and sexual health needs) or indirect (psychological trauma). The adolescent girls were asked about access to health care facilities, awareness of HIV/AIDs and reproductive and sexual health issues.

### Access to Health Care Facilities

Overall, amongst the 3,200 adolescent boys and girls interviewed:

- Seventy one percent adolescents had access to government health facilities on normal days, the corresponding percent being higher for Rajasthan, where majority of the adolescents had access to any government health facility.
- Access to a health sub-center was confirmed by 65% of the adolescents in

Rajasthan and 23% of the adolescents in Uttar Pradesh, while in Bihar and Andhra Pradesh it was reported by less than one fifth of the adolescents.

- Access to primary health care center was confirmed by 44% of the adolescents in Uttar Pradesh followed by 33% of the adolescents in Rajasthan, while in Bihar and Andhra Pradesh the figure is less than 20%.
- In Uttar Pradesh more than half of the adolescents mentioned about the presence of a private clinic/doctor or a local doctor.
- In Bihar private clinics and doctors' were reported as the major medical facility by 46% of the adolescents.
- In Andhra Pradesh, about one third (30%) of the adolescents mentioned about the absence of any medical facility, while only 28% of them reported the existence of private clinic/doctor in their village or locality.

### Reported Access to Medical facilities (Percent Adolescents)

	All States combined	Rajasthan	Uttar Pradesh	Bihar	Andhra Pradesh
Base (N)=Total Adolescents	3200	800	800	800	800
Community Health Center / Govt. hospital	14	11	28	5	13
Primary Health Centre	27	33	44	19	14
Sub-Centre / Health worker	30	65	23	17	13
Private clinic / Private doctor	39	26	55	46	28
Private hospital	8	3	11	5	15
Ayurveda / Homeopath/ Unani	3	4	3	3	1
Medical store	27	14	36	39	18
Traditional healer	4	0	2	4	8



Post disaster, while access to these facilities did not change, the adolescents reported that during the first three days post a disaster, the facilities remained largely non functional (in Bihar, Uttar Pradesh and Andhra Pradesh).

### Prevalence of Infectious Diseases

The adolescents were asked if they suffered from any infectious diseases post the disaster. In the first three days, post disaster, it was found that fever and cough/cold were the most common diseases reported by girls in Uttar Pradesh, Bihar and Andhra Pradesh (46%-63%). In Uttar Pradesh, 30% girls suffered from fever.

Amongst girls reportedly suffering from ailments, in Rajasthan 85% of girls reported having received treatment for all the ailments up to three months mainly from the Community Health Centers (CHCs) and private clinics. More than 60% of the girls in

Uttar Pradesh and Bihar reported having received treatment in the first three days and more than 70%, majorly from a private clinic/doctor. In Andhra Pradesh, 50% of the girls reported receiving treatment for some of their ailments in the first three days. A considerable proportion of girls in Uttar Pradesh, Bihar and Andhra Pradesh also mentioned that they could not attend school due to ailments.

In absence of medical aid during the disaster, it was reported by the respondents that they resorted to homemade remedies and medicines like tulsi leaves and hot water to cure family members suffering from cough and cold.

### Awareness about HIV/AIDS and STIs

Adolescent girls' awareness regarding HIV/AIDS was found to be less than 20% for Uttar Pradesh and Bihar, while the corresponding figure in Andhra Pradesh was 41% and Rajasthan 21%.

Moreover, further assessing the awareness level of the girls regarding Sexually Transmitted Infections popularly known as STIs, was found to be much lower. Less than 10% of girls in Uttar Pradesh, Bihar and Andhra Pradesh reported to be aware of it, while in Rajasthan the figure was a little better at 14 %.

However, as for the boys 31% of them in Rajasthan were found to be aware about STIs.

Further to assess the perceptions of the girls, they were asked about the vulnerability of girls and boys to HIV/STIs. While most respondents in Rajasthan and Uttar Pradesh had no idea about it, 50% of girls in Bihar and 67% of girls in Andhra Pradesh believed that both boys and girls are equally at risks.





### Menstrual Hygiene

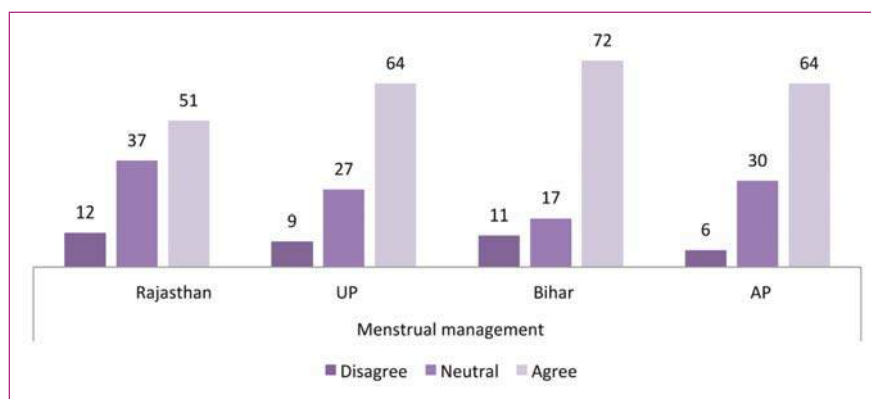
More than half the adolescent girls (58%) in Rajasthan and Bihar used cloth/rag as an absorbent during menstruation in normal days. In Andhra Pradesh and Uttar Pradesh the usage of cloth/rag was 64% and 75% respectively. Usage of sanitary napkins was

only by one fifth of the adolescents in Rajasthan, Uttar Pradesh and Andhra Pradesh while in Bihar less than a tenth of girls reported using sanitary napkins. Adolescent girls shared that this was a time of uneasiness and physical discomfort (50% or more adolescents), lack of privacy (30% adolescents) and feeling of embarrassment (40% adolescent girls in Rajasthan, Bihar, Andhra Pradesh and 25% in Uttar Pradesh) for them.

In a post disaster, the usage of absorbent in the first three days increased and in Uttar Pradesh (78%), Bihar (35%), and Andhra Pradesh (85%) girls used cloth/rag as a menstrual absorbent. Even after three months of a disaster more than 80% of girls in Rajasthan, Uttar Pradesh, Andhra Pradesh and 60% of girls in Bihar used cloth/rag as an absorbent.

More than half the girls in all the states agreed that girls had to suffer more during disaster as they undergo menstruation, and changing and cleaning becomes difficult in absence of toilets.

Figure 14: Perceived Effect of Disaster: Girls are More Vulnerable to Health Issues



(Base: adolescent girls 2392)



## Development

Education is critical for all children, and disasters leave a deep rooted impact on the education as schools are damaged or washed away or converted to shelters during floods. Children have to go long distances to school and in the process many drop out of school. This section focuses on the right to

development and, in particular, girls' education and learning in disasters.

While comparing availability of key facilities pre and post disaster (after three months), not much change was seen in terms of access to seating arrangements, games and recreational facilities, educational facilities and child friendly learning spaces.

### Percentage Adolescent Girls Reporting Availability of Basic Facilities In Schools

Facilities	All States combined	Rajasthan	Uttar Pradesh	Bihar	Andhra Pradesh
Base (N)= Adolescent Girls	2317	558	602	640	517
In normal days					
Proper seating arrangement	83	86	95	81	66
Access to games / recreation facilities	55	77	58	52	33
Library	25	46	29	9	19
Laboratory	11	12	25	5	2
Child friendly spaces	19	25	16	12	24
None	6	5	2	14	3
After disaster					
Base (N)=	2317	558	602	640	517
Proper seating arrangement	82	84	95	84	65
Access to games / recreation facilities	52	74	55	50	28
Library	23	43	28	8	15
Laboratory	11	12	24	5	1
Child friendly spaces	21	28	16	13	27
None	8	9	3	11	6



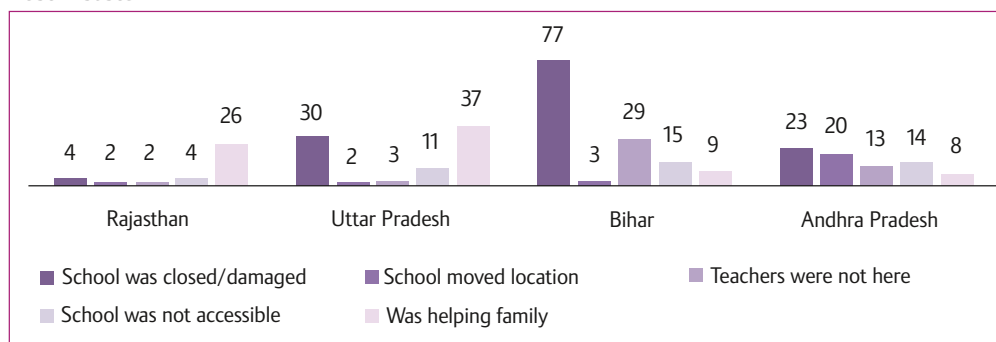


Overall 69% girls and 80% boys reported that they missed or dropped out from school post disaster. In Uttar Pradesh, Bihar and Andhra Pradesh more than 60% of the girls reported of not being able to attend schools and colleges as these areas were found to be severely affected by floods and cyclones. In a drought prone state like Rajasthan there was not much impact on the education because schools are not as severely affected by drought as they are by floods, cyclones or landslides. In Andhra Pradesh, 20% of the

girls reported of dropping out of the school after disaster as compared to 5% of the boys.

Amongst reasons cited for missing school, in Bihar, Uttar Pradesh and Andhra Pradesh, damage to the school building was cited as the most common reason for missing classes. In Rajasthan there were no variations in pre and post disaster attendance of students as schools are not as severely affected by drought as mentioned earlier.

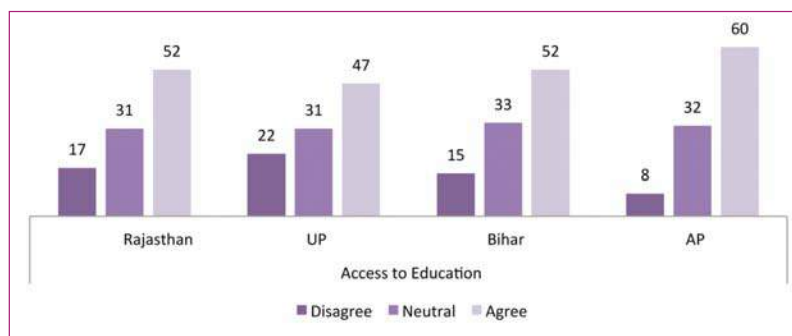
Figure 15: Percentage Adolescents Citing Reasons for Dropping out or Missing School Post Disaster



(Base: those who have missed/dropped out; girls: 1663, boys: 654; Multiple Response)

Nearly 50% or more adolescent girls opined that education of girls is highly affected during and after disasters as compared to boys.

Figure 16: Perceived Effect of Disaster: Girls are more Vulnerable to Missing or Dropping out from Schools



(Base: adolescent girls 2392)



### Education in Emergencies is My Right

Malathy (name changed), 11 years stays in Santhinagar, East Godavari district, Andhra Pradesh. She goes to a nearby government school and studies in fifth standard. Malathy's father runs an auto-rickshaw on the highway and her mother makes packaged food for the local community. Santhinagar is a small hamlet located on the banks of Thandava River, close to the national highway connecting Kolkata to Chennai. This hamlet houses about 50 families who stay in small thatched huts made out of palm leaves. Most of the population living in this hamlet are labourers.

Cyclone Nilam forever changed their lives on 4<sup>th</sup> November 2012. Unprecedented loss was reported of hundreds of houses and belongings that were damaged or destroyed, fishing and farming equipment ruined and schools decimated by winds as high as 80km/hour.

The rain stopped after two days. "Water filled this place upto the road", recounts Malathy. "The water in Thandava River rose suddenly. My house and all houses were flooded. It was raining and my rain coat was also wet. I lost all my books, bags and dresses. One floor of my school was under water. The school closed for one week. We stayed in the auto for 10 days and then rented a house to stay", Malathy continues. Malathy shares that when disaster strikes, children are the most vulnerable. She said, "we lost education materials like note books, text books, school bag and also lost raw material of the mid-day meal programme like rice, pulses, tamarind etc, which was stored in the school building, as our school building was inundated with flood waters. In such a situation, we received relief support from GSS-Plan India. GSS-Plan India has distributed education kits. This is first time we have received education material as relief in emergencies. I go to school now. I have five friends in school. I like going to school. I read books and play games", says Malathy with a smile on her face.



## Protection

Children and adolescents are susceptible to violence/abuse during disasters. Protecting them from violence, exploitation and abuse is an integral component of protecting their rights to survival, growth and development.

### Engagement of Girls in Household Chores

In the aftermath of disasters, children are at

an increased risk of being trafficked and forced into child labour.

The study revealed that more than 90% of the girls in Rajasthan, Uttar Pradesh, Bihar and around 82% of the girls in Andhra Pradesh performed household chores on normal days. Almost similar proportion of the girls, in all the four states, reported of doing the same work even after the disaster. Household chores like fetching of water and taking care of siblings were found to be part of their routine work even on normal days.

### Percentage Adolescent Girls Reporting Performing Household Chores on Normal Days and Post Disaster

Activities	All States combined		Rajasthan		Uttar Pradesh		Bihar		Andhra Pradesh	
	Normal days	Post disaster	Normal days	Post disaster	Normal days	Post disaster	Normal days	Post disaster	Normal days	Post disaster
Base (N)=	2392		595		600		600		597	
Household chores at own house	92	89	94	94	96	95	95	88	82	78
Fetching water for household	66	63	67	67	71	74	69	59	55	51
Taking care of siblings	41	36	45	43	62	57	42	34	14	9
Domestic chores in other households	5	3	5	3	9	7	2	1	2	2
Worked in own agricultural field	16	15	28	28	25	18	7	6	4	7
Worked in others agricultural field / wage labour	7	7	1	2	13	13	8	8	6	5
None	5	7	3	-	1	-	1	-	13	-



Likewise, around four fifth of the boys in Rajasthan, Uttar Pradesh, Bihar and around 60% of the boys in Andhra Pradesh also reported performing household chores on normal as well as post disaster days.

#### Type of Work Done by Boys (in percentage)

	Rajasthan		Uttar Pradesh		Bihar		Andhra Pradesh	
	Normal days	Post disaster	Normal days	Post disaster	Normal days	Post disaster	Normal days	Post disaster
Base (N)=	205		200		200		203	
Household chores at own house	80	83	84	81	90	89	63	53
Fetching water for household	46	50	49	47	20	25	63	57
Taking care of siblings	12	12	35	38	15	14	13	7
Domestic chores in other households	7	5	23	20	2	1	3	2
Worked in own agricultural field	42	15	71	65	10	13	14	10
Worked in others a gricultural field / wage labour	11	7	4	2	4	1	11	8
None	10	-	8	-	5	-	12	-

The disparity in work was seen to be greater immediately following a disaster with girls doing almost two third of the house and care work in comparison to boys. Work in own agricultural fields was found to be commonly taken up by boys in all situations.

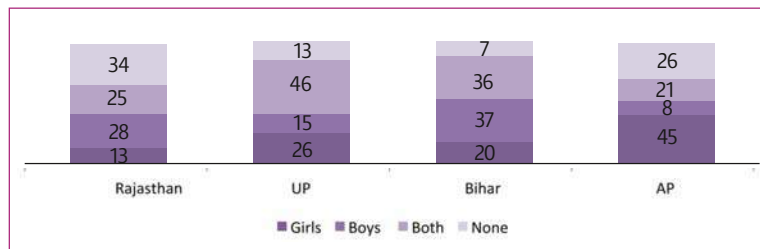
Only about one tenth (14%) adolescent girls and less than a tenth of adolescent boys in all the four states reported of any form of force or pressure from the family members to work either to contribute to income flow or take up household responsibilities.

Adolescent girls were especially asked about existing inequities in workload distribution pre and post disasters. One third or more adolescents in Uttar Pradesh (46%) and Bihar states (36%) reported that such times meant increased workload for both boys and girls. One fifth or more adolescents reported that in such situations, girls were more burdened with additional responsibilities (Bihar: 20%; Uttar Pradesh: 26% and Andhra Pradesh: 45%).





Figure 17: Percentage Adolescents Reporting Additional Responsibilities to Perform Household Chores



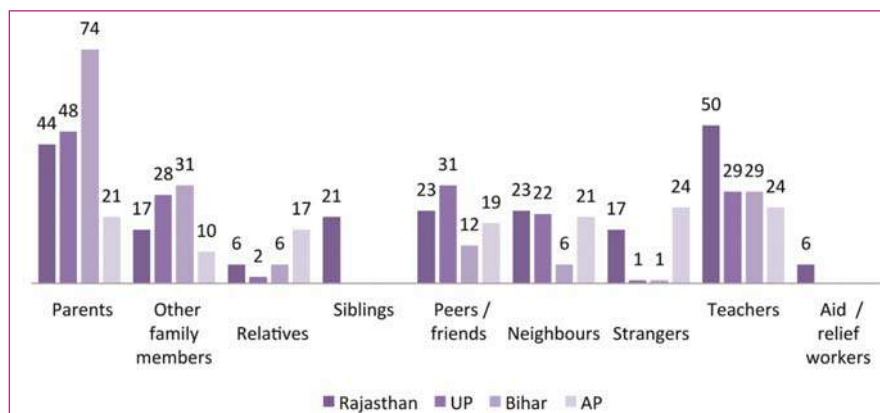
(Base: adolescent girls 2392)

## Incidence of Abuse


Susceptibility of girls to various forms of abuse increases in the aftermath of a disaster. The vulnerability of adolescent girls increases especially if they are separated from their parents or are left orphaned. In emergency situations, many girls face the danger of sexual abuse and exploitation when staying in temporary shelters, when using unsafe latrine facilities or when collecting firewood and water. In addition, girls in adverse situations are sometimes forced to resort to prostitution for food and survival, which together with trauma and social exclusion can lead to risks of sexually transmitted infections including HIV.

In the study states, one fifth of the girls in Uttar Pradesh (21%), and about one third in Bihar (34%) reported being subject to physical abuse at home and in school. Amongst girls who reported abuse in these two states, about half of them in Uttar Pradesh (49%) and three fourths in Bihar (75%) shared that their parents were responsible for beating them. In Rajasthan (39%) and Andhra Pradesh (37%), about one third of the girls reporting physical abuse, opined the same. In Andhra Pradesh out of those girls 47% girls reporting physical abuse, reported that they had been beaten by strangers.

Figure 18: Reported Persons Responsible for Physical Abuse to Adolescents



(Base: adolescent girls 339)



Likewise in Rajasthan, 31% girls reported being harmed by their relatives (17% in Andhra Pradesh).

In event of facing abuse, in Rajasthan, Uttar Pradesh and Bihar more than 80% of the adolescent girls reported that they were unable to do anything in such a situation. In Andhra Pradesh about 20% girls either confronted the situations themselves or reported the incident to others. Very few girls resorted to reporting the incidents to the village heads, police and child protection committee and in school.

#### As regards Gender Discrimination

**Physical Abuse:** One fifth of the girls in Rajasthan and Uttar Pradesh reported that girls were at more risks to physical punishment than boys. In Bihar, nearly half the girls reports that both boys and girls were at equal risks.

**Sexual Abuse:** More than 30% of girls in Uttar Pradesh, Bihar and Andhra Pradesh reported that they were more vulnerable to sexual abuse in the aftermath of disaster. Around 20% of the girls reported that both girls and boys are equally prone to the atrocities of sexual abuse and exploitation.

**Stress and Harassment:** 40% adolescents in Andhra Pradesh confirmed that girls are more at risk of stress and harassment. In Bihar, the same percentage felt that both boys and girls are equally prone to psychological stress and harassment after disaster.

“We feel scared to go out fearing that someone on the road will pass comments. They particularly do this when we go to school. We quietly walk away.”

– Adolescent girls, Gorakhpur (Uttar Pradesh)



#### Fear of being Parted from their Family:

Although it is not always clearly visible, individuals with a pre-disposed vulnerability to violence, such as adolescent girls who are marginalised, have a compounded risk: first suffering the disaster and its consequences, then the risk of violence, a lack of care and protection when they try to get help and finally being sent away to work in order to support household income flow or being married off to avoid added responsibility and burden during and after disasters.

#### Qualitative finding on importance of age-limit

“They will become mothers at an early age. There is a lot of responsibility of a child. She herself is a child still, she will not be able to take care of the child. The system of child marriage was much stronger earlier but the custom has become less prevalent now.”

– Adolescent girls, Jodhpur (Rajasthan)



Fear of being married off in an aftermath of a disaster was found to be the highest in Rajasthan. Forty four percent adolescent girls confirmed such vulnerabilities in Rajasthan. Families believed that this would reduce their financial burden and give them a chance to cope with poverty.

“By marrying the girls at an early age, the family is relieved from the burden of dowry. May be that is the reason they prefer to marry their girls immediately after disaster, to shed off financial burden.”

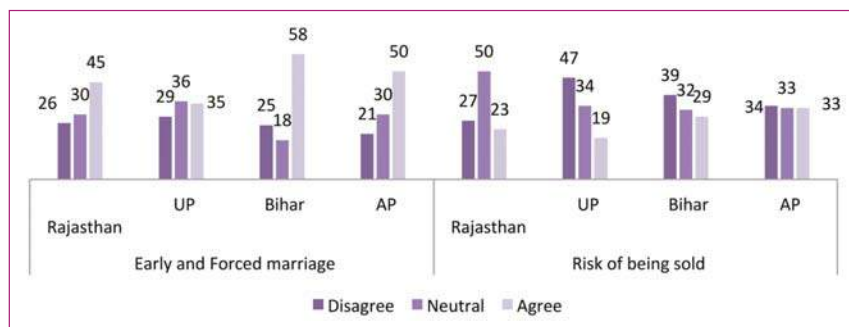
– Adolescent girls-Maharajganj (Uttar Pradesh)





Fear of being married off early was held by 45-58% adolescents in Rajasthan (45%), Andhra Pradesh (50%) and Bihar (58%). More than one fourth girls in Bihar and Andhra Pradesh feared being sold off or trafficked post a disaster.

Figure 19: Perceived Effect of Disaster: Girls are more Vulnerable to Early Marriage



(Base: adolescent girls 2392)

## Impact on Psychosocial Health of the Adolescents

Most adolescents, both boys and girls feared recurrence of disasters across all states (80% or more). The trauma of the actual disaster is far worse than other fears, such as of losing family members, social security, sexual abuse or even trafficking.

**“Parents take good care of us and we feel secure and safe with them during and after disaster.”**

- Adolescent girls, Bikaner, Rajasthan

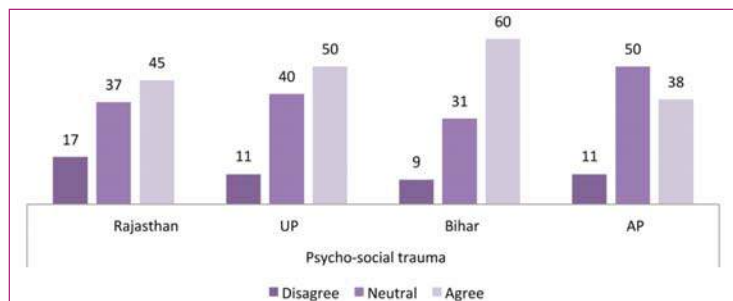
Majority of the girls reported that they mainly confined themselves to homes, were afraid to go outside and always tried to be around with their family members. Few of them even had sleepless nights and bad dreams due to the trauma of the disaster.

More than one third adolescent girls (Andhra Pradesh: 38%; Rajasthan: 45%; Uttar Pradesh: 50% and Bihar: 60%) agreed that girls were psychosocially affected in the aftermath of a disaster.





Figure 20: Perceived Effect of Disaster: Girls are more Vulnerable to Psychosocial Trauma



(Base: adolescent girls 2392)

### Psychosocial Care and Protection through CFS

Plan recognises that psychosocial support is a priority in emergencies, including reducing the impact on children especially on adolescent girls in preventing serious mental health disorders and increasing the protection. The Child Friendly Space in Maneidiha village made a very good impact on children and adolescent girls. CFS in the village had facilitated adolescent girls' to visit regularly and become close to facilitator Ms. Sunita Barik. They used to share their problems both at the family and community level with the facilitator, who created as friendly an environment as possible, and resolved the issues in consultation with their parents and community members. She also used to guide them on their sexual and reproductive health issues. Sunita said, "I enjoyed my role which helped me in making the Center a place of delight for the children and especially for adolescent girls". She wished to continue the Center. The villagers were also happy to see such a Center in their village and were interested in continuing with the same.

### Participation

Disaster preparedness should be mainstreamed in all development programs to include the needs and voices of people at all

stages of the disaster management process. This can significantly reduce vulnerability of people and increase the effectiveness of Government response and recovery efforts. This section of the report looks into the roles adolescents play in disaster risk reduction (DRR), existing capacities and current involvement in activities, such as preparing disaster risk management plans, participating in community based groups etc.

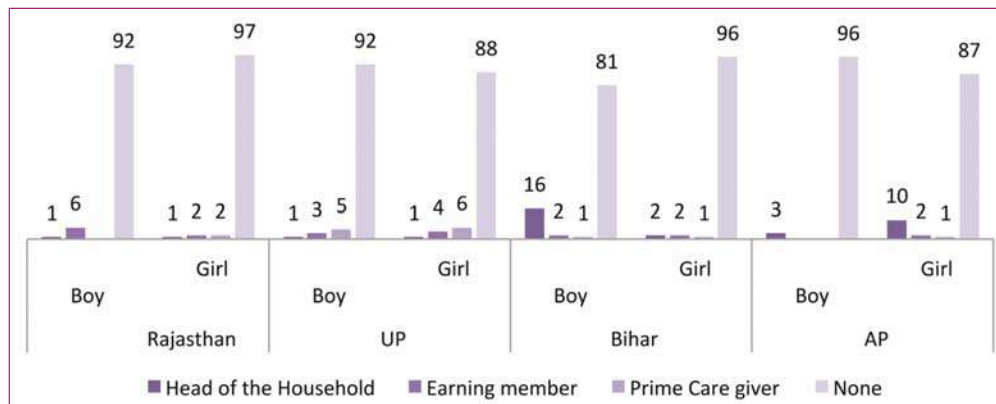
### Role of Adolescents at the Time of a Disaster

Adolescents play an important and dynamic role during relief and response in the aftermath of a disaster. Ensuring preparedness amongst adolescents can be immensely beneficial to the individual as well as the community. At the same time, adolescents resort to numerous coping mechanisms in order to overcome the difficulties and tragedies that these disasters may bring with them, in order to survive.

However, in the four states, more than 80% adolescents, both boys and girls, reported that they did not play any specific leadership role during or after disaster. In Bihar (16%) and Andhra Pradesh (10%), about one tenth of the boys and girls reported assuming roles of being the head of their households post disaster.



Figure 21: Percentage Adolescent Boys and Girls Reporting Playing any Role in the Aftermath of a Disaster

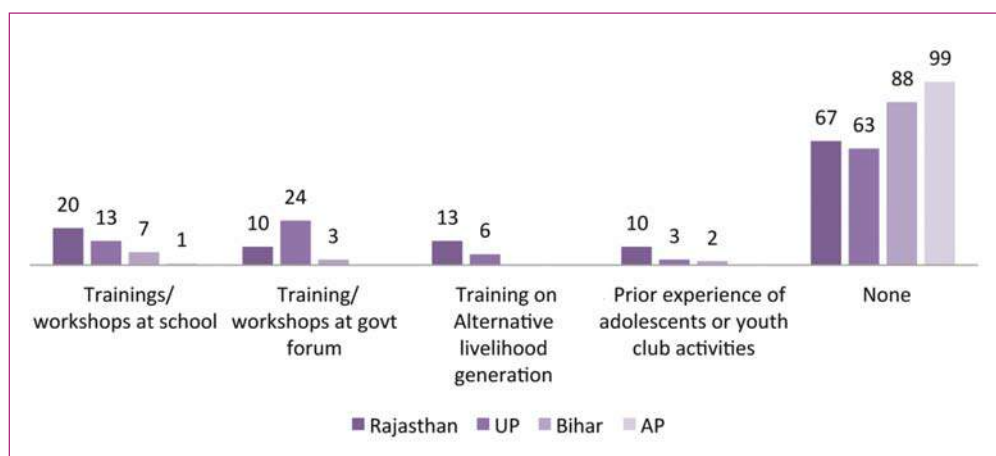


(Base: adolescent girls & boys 3200)

The low levels of any roles assumed by adolescents is explained by the fact that more than four fifths (90% adolescent girls and 88% adolescent boys) confirmed that they had not received any kind of training to execute any leadership role in the event of a disaster.

The adolescents were not clear/aware of trainings that can benefit them, especially in Andhra Pradesh (99%) and Bihar (88%). Training and capacity workshops at school, panchayat or any other government established structure was reported to be useful by adolescents in Rajasthan and Uttar Pradesh.

Figure 22: Types of Training that would be Beneficial



(Base: adolescent girls & boys 3200)





More than three fourth girls in all four states reported that they did not assume any responsibility outside of their family for relief and rescue operations in their community. Almost no incidences of rescue work, providing first aid and help in making shelter were recorded though few incidences of taking care of siblings and elderly people were reported.

However, during focus group discussions, adolescent boys and girls opined that they will stand to benefit from trainings on disaster preparedness and capacity building.

## Disaster Preparedness in Villages

**Plans:** Disaster preparedness is essential at the community level, amongst the duty bearers and designated government departments to minimise or mitigate the impact of disasters. However, only a minimal 3% adolescent girls and boys across the four states reported that their village or school was equipped with any preparedness plan (Rajasthan: 7%; Uttar Pradesh and Bihar: 2% and Andhra Pradesh: 4%).

**Mock drills:** Negligible percentage of adolescent boys and girls (0.1%-1.7%) across the four states reported any mock drills being organised in their villages or schools.

**Trainings:** Only 1.3% adolescents reported receiving any training or orientation towards disaster preparedness. However, when asked about the skills required to survive in a disaster situation, around 23% of the adolescent boys and girls across all the four states reported of having the required mental strength to handle the after-effects of any disaster, the highest proportion being reported in Rajasthan (42%).

“Nobody comes in our village to provide training on Disaster preparedness. We feel that training is important to save one's own life and also helping others during times of disaster”

- Adolescent girls, Maharajanj,  
Uttar Pradesh



**Early Warning Systems:** Nearly all adolescents (97%) reported that they had not received any form of early warnings or alerts about the impending hazard and its potential risks. Amongst the 3% who reported the warning, the major sources of the information were found to be radio, television and news.

## Support Structures and Coping Mechanisms at Times of Disasters

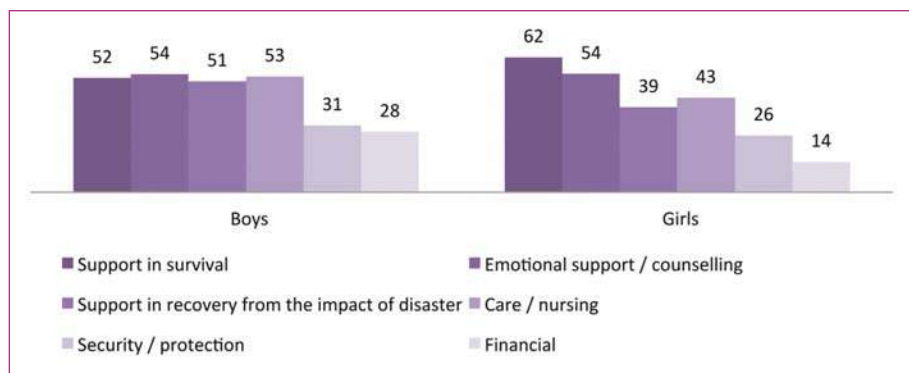
Vulnerability of adolescent girls and young women is increased by socially determined differences in roles and responsibilities of adolescent girls at times of disasters. To ensure that the views of girls are heard and their priorities acted upon in all decision making that affects their wellbeing, it is widely recognised that the participation of those affected helps to ensure that programmes and policies respond to the concerns and rights of the affected population.

The subsequent section looks at various support systems available for adolescents to access at times of disasters.

**Family based Support Systems:** Family plays an important and immediate role in providing survival, emotional support, security and protection and recovery at times of disasters. Of all the adolescent boys and girls interviewed across the four states,

50% boys and 46% girls confirmed that they received support from their families including meeting their survival needs (boys: 52%, girls: 62%), emotional support (boys and girls: 54%) and care and nursing (boys: 53% and girls: 43%).

Figure 23: Nature of Support Received from Family as Reported by Adolescents



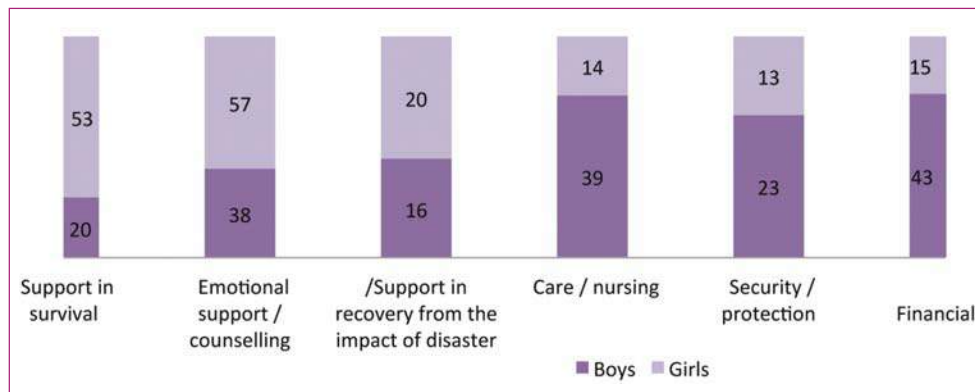
(Base: Number of girls 1089 and boys 406 who received support from family)



**Peer based Support:** The role of peers cannot be undermined when it comes to support from them in situation of a disaster. Support from peer groups can be most effective support for vulnerable groups. However, only 9% adolescent girls and 16% adolescent boys confirmed that they received any kind of support from their peers. Nature of support received from peers included emotional support and counselling, support in survival and for care and nursing.



Figure 24: Reported Nature of Support Received from Peers (Percent Adolescents)



(Base: Number of girls 206 and boys 131 who received support from peers)

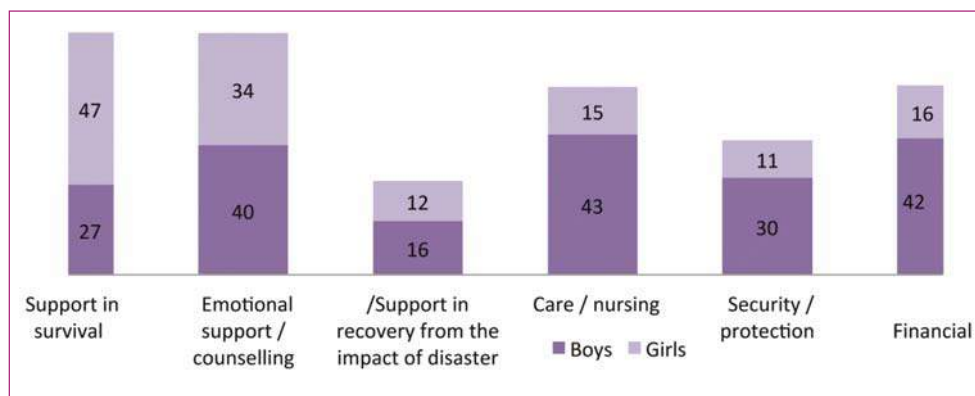
### Community based support systems:

Community based institutions play a vital role in reducing the impact of a disaster. With an understanding of the local topography, the hazard context, and the livelihoods options available, local community based institutions if involved in disaster management programs from the

start, can be effective mechanisms to overcome the impact of disasters.

In the four study states, overall less than 10% of adolescent girls reported receiving any help from community members after disaster.

Figure 25: Reported Nature of Support Received from Community Based Institutions (Percent Adolescents)



(Base: Number of girls 131 and boys 91 who received support from the community)

Nature of support received from peers included emotional support and counselling, support in survival and support for care and nursing.

**Support of Government & Non-Government Agencies:** Government agencies play a critical role during the time of a disaster, but the exact role and assistance of government is often unclear to disaster victims. The critical role of the NGOs in disaster reduction and response has also been widely acknowledged. Overall only 5% girls and 19% adolescent boys reported receipt of any support from government or non-

government agencies. Support to meet the most basic survival needs (food and clothing) was most commonly cited by boys and girls.

**Psychosocial Care & Support:** Psychological care at times of disasters includes dealing with effects, such as shock, anxiety, sleep disturbances, guilt etc. Overall, 23% adolescent boys and 31% adolescent girls reported having received psychosocial support post a disaster. Amongst these adolescents, 90% across all four states reported that they were consoled by their family members.

### Rebuilding lives – Education through Food Security

Mrs. Basumati Barik aged about 45 years lives in Achyutpur village along with her husband aged 52 years. They have one daughter aged 15 years currently appearing for 10<sup>th</sup> standard exams. The family does not own any land and is in Below Poverty Line category. Her husband works as a wage labourer and does share cropping as well. They lost entire Kharif crop of rice due to floods. She has participated in mixed vegetable farming under cash for work.



The women are collectively engaged in the mixed vegetable farming which is quite a new venture for them as she shared. She has received Rs. 4,000 from CYSD-Plan towards 32 days of work in the farming. Out of which, she spent Rs. 1,000 for the inputs in the mixed vegetable farming, Rs. 1,200 towards the purchasing of food items, Rs. 1,000 towards purchasing straw to cover her thatched house and Rs. 500 for her daughter to appear in examination and the rest for other miscellaneous expenses. This has enabled the family to purchase food stock for up to another four months and also support their daughter's education.

Now, her first priority is to clear the debt that her family has of Rs. 10,000 before the floods and support her daughter's education who wants to become a school teacher.



## Deriving a Composite Index for all the Thematic Issues

For any policy prescription, it is of utmost importance to know the relative strengths and challenges so that priorities can be decided accordingly. The current study captured 9 thematic areas on effects of disaster and the preparedness for a disaster. The following themes were captured under the current exercise:

1. Effect on Basic Amenities
2. Effect on Sanitation Facilities
3. Effect on Access to Food
4. Effect on Access to Drinking Water
5. Effect on Schooling
6. Effect on Health Facilities
7. Protection of Adolescents after Disasters
8. Psychosocial Trauma
9. Disaster Preparedness

Each of these themes captured several indicators which reflected the status in the states of Rajasthan, Uttar Pradesh, Bihar and Andhra Pradesh, which has been depicted in the previous sections. This section attempts to provide an overall scenario under each of the nine themes by generating 9 indices for each of the four states. Also an aggregate index for the four states has been generated for each of the above themes. The generation of the index has been done following three steps.

1. Selection of relevant indicators under each theme using reliability analysis
2. Converting the variables dichotomous - i.e. the indicators will take a value of 0 or 1 based on the severity where 0 implies poor state and 1 implies good state

3. Calculating the index by using an average of the identified indicators using equal weights

### Selection of Relevant Indicators under Each Theme using Reliability Analysis

The crucial task is to select the relevant indicators under each theme which best describes the particular theme. For this purpose about 4 to 5 indicators were selected under each theme which best describes the status of the nine themes. The indicators were made unidirectional to show the same impact – the lesser is the value the severity of the impact increase. A reliability analysis was conducted and the Cronbach's alpha value was seen. The Cronbach's alpha value provides an indication whether the variables can be added with a certain degree of reliability. We have taken a cut off value of 0.5 for the alpha value. If the alpha value is less than 0.5 it implies there are significant correlations across variables and thus adding up similar variables will bias the results of the index. In cases, where the alpha value is less than 0.5, a cross correlation matrix has been taken out and the one of the two variables associated with a highest correlation have been dropped.

### Converting the Variables Dichotomous

The variables finally selected after passing the alpha test were converted into dichotomous variables which imply that the value of the variable will be either 0 or 1 where 0 implies lower score and 1 implies higher score.



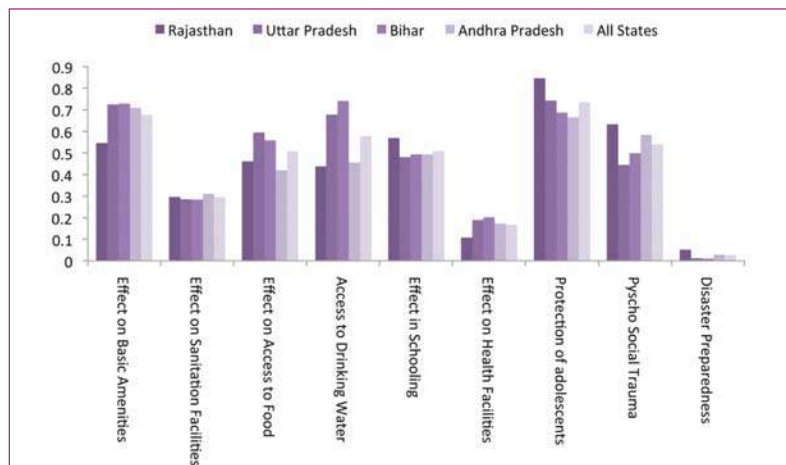


### Calculating the Index by using an Average of the Identified Indicators using Equal Weights

A weighted average of the variables under each theme has been calculated to derive the index using equal weightage. The logic of using equal weights is that each of the

selected variables after passing the reliability test are equally important to judge the condition of the theme.

The results of the index are shown the graph below:



Considering the overall average of the index to be 0.4, the states can be segregated by issues which are below average and which are above average. This will enable to determine the priority level of the implementation.

### Implementation Strategy - States Below and Above Average

Issues	States Above Average	States Below Average
Effect on Basic Amenities	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Effect on Sanitation Facilities		Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh
Effect on Access to Food	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Effect on Access to Drinking Water	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Effect in Schooling	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Effect on Health Facilities		Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh
Protection of Adolescents	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Psychosocial Trauma	Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh	
Disaster Preparedness		Rajasthan, Bihar, Uttar Pradesh & Andhra Pradesh



**UTTARAKHA**  
August / September

उत्तराखण्ड  
महिला







**TRANSLATING  
AMBITION INTO ACTION**



Plan's Because I am a Girl Campaign aims to support four million girls to get education, skills and the support they need to move themselves out of poverty. The annual 'State of the Girls' reports provide tangible proof of the inequalities that exist between girls and boys and support BIAAG with specific girl-oriented evidence. The report for 2013 supports evidence related to girls' rights in a disaster context.

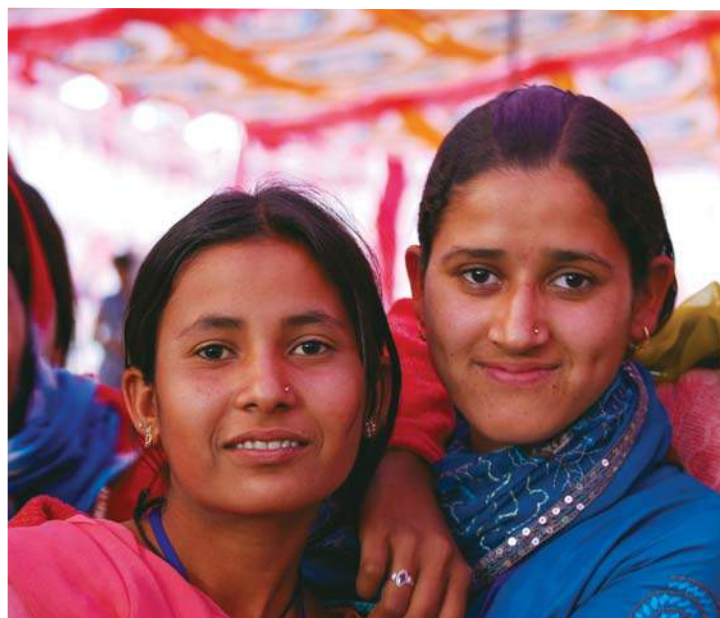
Due to social norms and their interaction with biological factors, women and children, particularly girls, face increased risk to adverse health effects, deprivation and violence. They may be unable to access assistance safely and/or to make their needs known. Additionally, women are insufficiently included in community consultation and decision-making processes, resulting in their needs not being met. It is not hard to understand that disasters have adverse effects on the lives of the people that are impacted by it. Girls witness double discrimination of gender and age that makes them far more vulnerable in the aftermath of a disaster and thereby, reduces their chances of survival.

The evidences of these discriminatory practices are clearly visible throughout the report with girls having to shoulder more responsibility than boys in the aftermath of a disaster and boys receiving preferential treatment post a disaster. Access to food and water is adversely effected during disasters and in such times girls and women are given last preference, thereby, making them more vulnerable. Access to food, water or even sanitation facilities is not sufficient to ensure survival or represent gender equality. Young girls are compelled to settle for impure and unclean amenities in order to survive which has direct implications on their health.

The research found that both adolescent

girls and boys are of the opinion that girls are especially disadvantaged by the lack of proper sanitation facilities in a disaster situation. Adolescent girls are more vulnerable to violence and sexual assaults in the absence of proper toilets and open defecation is not only a privacy concern but an important protection issue. It is not only sexual assault and violence that young girls are vulnerable to; they are also the first victims when it comes to be denied education. Without education and reduced protection measures they tend to become burdens on their family contributing little to the already feeble economic status. The risk of being married away is greatly increased in such conditions. However, it is not only child marriage that becomes prevalent at these times but also trafficking, and adolescent girls tend to be easy prey.

It is easily understandable then why girls are more vulnerable than boys in a disaster situation, and the need to develop rescue, rehabilitation and protection measures must





take into account the needs and vulnerabilities of this section of the population. Adolescents can also contribute to the disaster rescue and preparedness and involving them in the process may contribute to reducing the adversities caused by these situations.

### Girls' Rights in Emergencies: Key Action Points

1. Consult adolescent girls in all stages of disaster preparedness and response
2. Train and mobilise women to work in emergency response teams
3. Provide targeted services for adolescent girls in the core areas of education, protection and sexual and reproductive health
4. Include funding for protection against gender-based violence in the first phase of emergency response
5. Collect sex and age disaggregated data, to show the needs of adolescent girls and inform programme planning

## Recommendations

In the sections below we make recommendations to the humanitarian and development sectors, working at international, national and local levels, to national governments and to local institutions that could help transform the experience of adolescent girls in disasters.

They are grouped under the following headings:

**Evidence:** Understanding the needs and rights of adolescent girls in disasters

**Resources:** Providing targeted services for adolescent girls

### Prevention, Participation and Integration: Building girls' resilience

#### **Evidence:** Understanding the Needs and Rights of Adolescent Girls in Disasters

Clearer markers and standards are necessary in order to identify the various age groups and garner not only gender disaggregated data but age disaggregated data as well. This will help in understanding the multi-dimensional vulnerability that adolescent girls suffer in the face of a disaster. Precise information will not only increase the visibility of adolescent girls and enable services to be targeted more effectively but will be a step towards recognising that this age group can make a valuable contribution in times of disaster.

A critical understanding of who is being responded to – what their needs, rights and skills are – is central to maximising the efficiency and effectiveness of relief and response efforts. In most emergency situations, the local population are first on the scene and have the most in-depth knowledge of their communities. Efforts to help prepare all sections of the population and then to have a system in place that can harness their knowledge and skills during the response phase is crucial. In this regard, development players must:

- a. Ensure that all disaster needs assessment teams are gender-balanced.
- b. Ensure the participation of adolescent girls in the assessment process.

The International Rescue Committee (IRC) has identified the following actions needed to improve programmes for adolescent girls:

- Better targeting and segmenting of populations within programmes
- Understanding age-appropriate needs





- Creating safe spaces and recruiting girl mentors
- Developing positive social networks with mentors
- Working with families to establish support systems for adolescent girls

### **Resources: Providing Targeted Services for Adolescent Girls**

It is important to know what it is that adolescent girls require at the time of disasters and the resources that they need to overcome their conditions and situations in order to be able to move on from their vulnerabilities. Until and unless an understanding is gained of the needs of the adolescent girls themselves it will not be possible to develop any effective schemes or programmes that will truly benefit them. The effectiveness of a targeted approach is based on this premise. Nonetheless, the annual budget for child protection within the child budget, is drastically low with

reductions occurring every year and while education continues to receive priority over other aspects the current socio-cultural situation does not benefit from the access to education that is being provided by government organisations, which is why it is important that the voices of the adolescents themselves do not continue to go unheard.

At the international level, the Hyogo Framework for Action includes among its priorities for 2005-15 the aspiration that, “a gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training”. And yet, these recommendations are not consistently put into practice and furthermore, most of the tools and programmes never mention adolescent girls as separate from women or children or recognise that they have a unique situation both in disasters and in disaster risk management.





## Prevention, Participation and Integration: Building Girls' Resilience

Within work to support communities in emergencies it is vital to acknowledge the specific enablers that will promote the resilience of adolescent girls. Programme planning for development should integrate a thorough risk analysis which factors in the roles and capabilities of different community groups. Building resilience in a multi-risk environment can help bridge the gap between different disciplines, such as development and emergencies. The divide between humanitarian and development work is essentially artificial, but it has taken hold in the minds of practitioners who have planned and practised their work over many decades largely in isolation.

The Post-MDG framework must support the closer integration of the humanitarian and development sectors, recognising the importance of building resilience as critical factors in achieving development outcomes.

### Provisions for Adolescent Girls in International Guidelines for Humanitarian Actions in Emergencies

International guidelines for Humanitarian Response in Emergencies drafted provision either on gender needs or on age-specific needs of children and adolescents. In most of the cases adolescent girls' specific needs have not been separately identified, yet the needs of the target group could be addressed using the existing guidelines.


Sl. No.	Instrument	Provisions and Gaps	
		Provisions	Gaps
1.	<b>Convention on the Rights of the Child (CRC)</b>	<ul style="list-style-type: none"> <li>• Protection from physical harm</li> <li>• Protection from exploitation and gender-based violence</li> <li>• Protection from psychosocial distress</li> <li>• Protection from recruitment into armed groups</li> <li>• Protection from family separation</li> <li>• Protection from abuses related to forced displacement</li> <li>• Protection from denial of children's access to quality education</li> </ul>	<ul style="list-style-type: none"> <li>• Gender analysis to identify specific need for girls</li> </ul>
2.	<b>International Humanitarian Law (IHL)</b>	<ul style="list-style-type: none"> <li>• Protection against sexual violence</li> <li>• Specific protection for women deprived of their liberty, requiring separate quarters and sanitary conveniences</li> </ul>	<ul style="list-style-type: none"> <li>• No specific mandate for needs of adolescent girls</li> </ul>



Sl. No.	Instrument	Provisions and Gaps	
		Provisions	Gaps
3.	<b>IASC Policy Statement on Integration of a Gender Perspective in Humanitarian Operations</b>	<ul style="list-style-type: none"> <li>• Commit as a priority to “the participation of women in the planning, designing and monitoring of all aspects of emergency programmes.”</li> <li>• Develop vulnerability maps for food insecurity separately for women, girls, men and boys</li> <li>• Appropriateness of non-food items</li> <li>• Consideration of privacy and separate sanitation facility for girls and women</li> <li>• Consider issues of dignity, for women and girls in particular, in all water, sanitation and hygiene interventions and design culturally appropriate strategies to enhance dignity</li> </ul>	<ul style="list-style-type: none"> <li>• No specific mandate to ensure needs of adolescent girls</li> </ul>
4.	<b>INEE Minimum Standards for Education in Emergencies, Chronic Crises and Early Reconstruction</b>	<ul style="list-style-type: none"> <li>• Design and Implement gender responsive education in Emergencies</li> </ul>	
5.	<b>Guidelines for Gender-based Violence Interventions in Humanitarian Settings</b>	<ul style="list-style-type: none"> <li>• Specifically identified that adolescent girls and young women may be specifically targeted for sexual violence during armed conflict or severe economic hardship</li> </ul>	
6.	<b>IASC Guidelines on Mental Health and Psychosocial Support in Emergency Settings</b>	<ul style="list-style-type: none"> <li>• Promote gender- and age-disaggregated health information systems that cover essential mental health data</li> <li>• Expand educational opportunities for adolescent girls and boys, including vocational training and start adult literacy courses</li> </ul>	

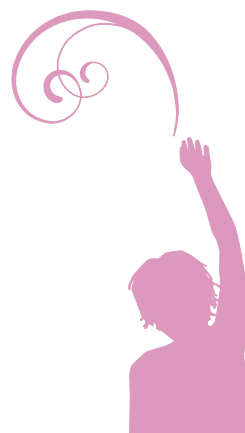


Sl. No.	Instrument	Provisions and Gaps	
		Provisions	Gaps
7.	<b>Hyogo Framework</b>	<ul style="list-style-type: none"> <li>The Hyogo Framework, endorsed by 168 national governments at the 2005 World Conference on Disaster Reduction, contained the most explicit reference to gender of any other international policy frameworks for DRR. It stated that '[a] gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.'</li> </ul>	<ul style="list-style-type: none"> <li>No specific mandate to ensure needs of adolescent girls</li> </ul>
8.	<b>Yogyakarta Declaration, Indonesia 2012</b>	<ul style="list-style-type: none"> <li>Identified that child-centred DRR places a child's right to survival, protection, development and participation at the heart of development and humanitarian action</li> <li>Recommended child-centred, gender-specific and disability-sensitive interventions need to be mainstreamed into all community based DRR interventions and into national and sub-national development approaches in the region</li> </ul>	
9.	<b>Human Rights and Natural Disasters: Operational Guidelines and Field Manual on Human Rights Protection in Situations of Natural Disaster</b>	<p>It is critically important to respond to specific physical, psychosocial, material, health, education and protection needs of children and adolescents from the onset of an emergency. The needs of children should be integral to each stage of the disaster response. Every effort should be made to ensure child-friendly approaches to disaster relief and recovery. In accordance with International Human Rights Law, children are entitled to special</p>	



Sl. No.	Instrument	Provisions and Gaps	
		Provisions	Gaps
		<p>measures of protection above and beyond those provided to adults until they reach the age of 18. The best interests of children should serve as the guide for humanitarian decisions concerning them. At the same time, children and adolescents should not be viewed as helpless victims, but rather as active participants in disaster response</p> <p>Guidelines</p> <ul style="list-style-type: none"> <li>• Protection against trafficking, forced labour and contemporary forms of slavery</li> <li>• Protection against forced recruitment</li> <li>• Camp security, measures to be taken for location and lay-out</li> <li>• Special attention to access to humanitarian assistance</li> <li>• Return to school as soon as possible</li> <li>• Compulsory and free primary school education</li> <li>• Special efforts for participation of girl children in education</li> </ul>	

Now is a good time to review humanitarian practice. In the run-up to 2015, when both the Millennium Development Goals<sup>3</sup> and the Hyogo Framework for Action<sup>4</sup> are set to be reformulated, there is an escalating global discourse on challenging business as usual by integrating Disaster Risk Management (DRM) more fully into development policy and practice. In effect, this will acknowledge the potential for continuity between development and humanitarian work.







## References

<sup>1</sup>Adolescent girls include those aged between 10-19 years.

<sup>2</sup>WHO (2005) Emergency and Humanitarian Action: India Hazard Profile and Disaster Preparedness

<sup>3</sup>Maplecroft (2010) Natural Disasters Risk Index

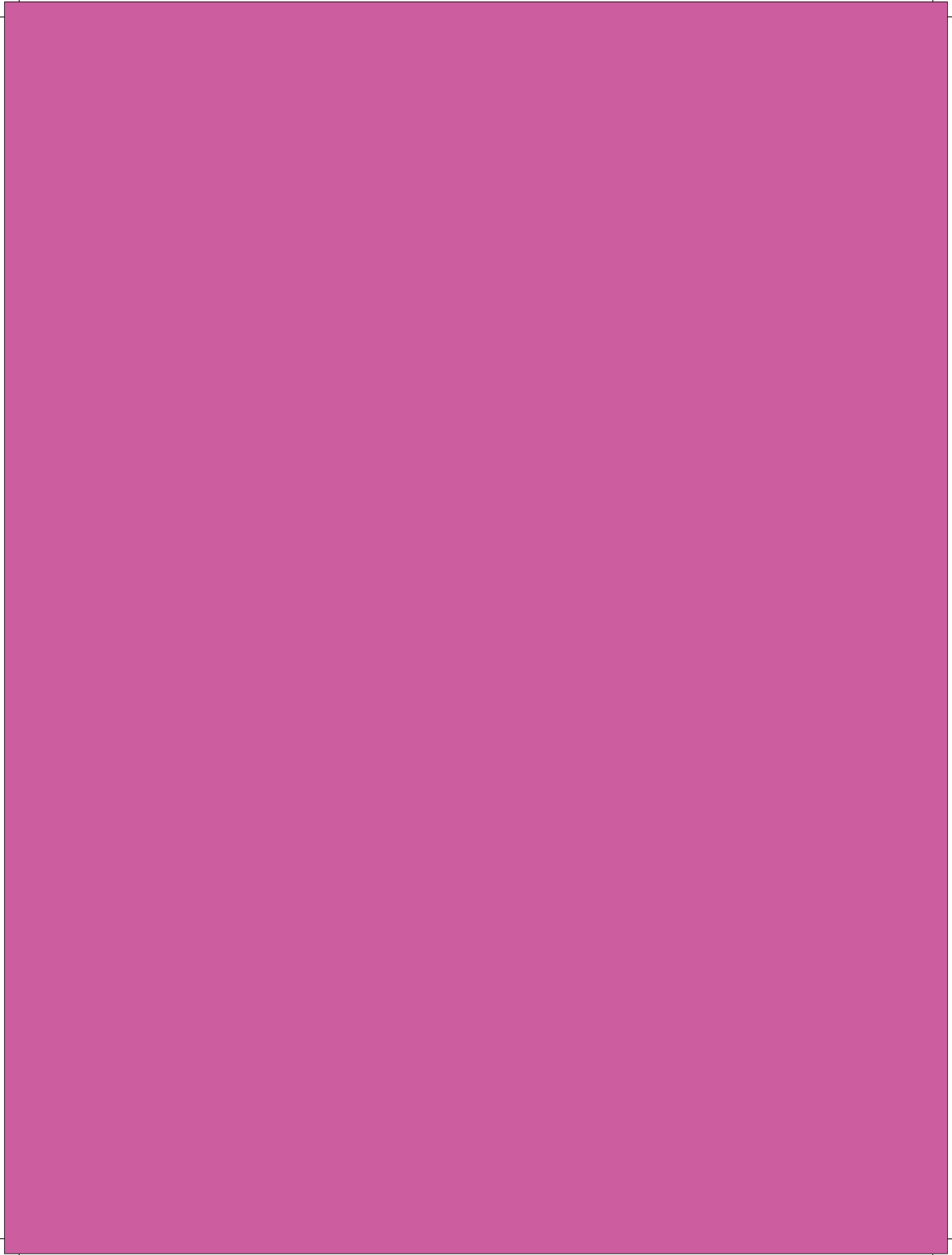
<sup>4</sup>WOMEN, GIRLS AND DISASTERS: A review for DFID by Sarah Bradshaw and Maureen Fordham, August 2013

<sup>5</sup>Centre for Research on Epidemiology of Disasters Database

<sup>6</sup>EM-DAT: The OFDA/CRED International Disaster Database, accessed on March, 2010

<sup>7</sup>Adolescents in India, A Profile, UNFPA for UN systems in India, 2003, Pgs. 21-22







## About Plan India

Plan India is an Indian NGO working to improve the lives of disadvantaged children, their families and communities through an approach that puts children at the centre of community development. Since 1979, we have been working with our partners to help children access their rights to proper healthcare, basic education, and healthy environment, protection from abuse and exploitation and participation in decisions that affect their lives. We encourage children to express their views and be actively involved in improving their communities. Plan India currently works in 11 states in India, across 5000 communities and has touched the lives of over a million children. To make a difference in the lives of children and their communities, visit [www.planindia.org](http://www.planindia.org) and follow us on facebook.

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for every child.**