

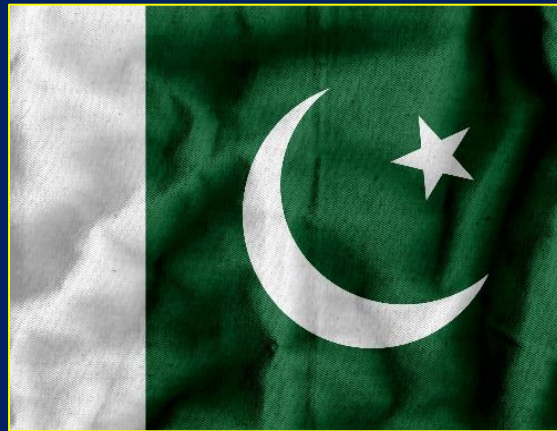
Promotion of Rainwater Harvesting (RWH) in Earthquake Affected Areas of Pakistan

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Govt. of Pakistan



Promotion of Rainwater Harvesting (RWH) in Earthquake Affected Areas of Pakistan

- Deaths : 73,338
- Injured : 128,304
- Families affected : 500,000
- Population affected : 3.5 M
- Area Affected : 30,000 Sq KM
- Edu. Institutions : 6298
- Health Institutions : 796
- Houses destroyed : 600,000
- Roads damaged : 6440 km
- Telecom, Power Services : 50-70%
- Water & Sanitation : 4500 +

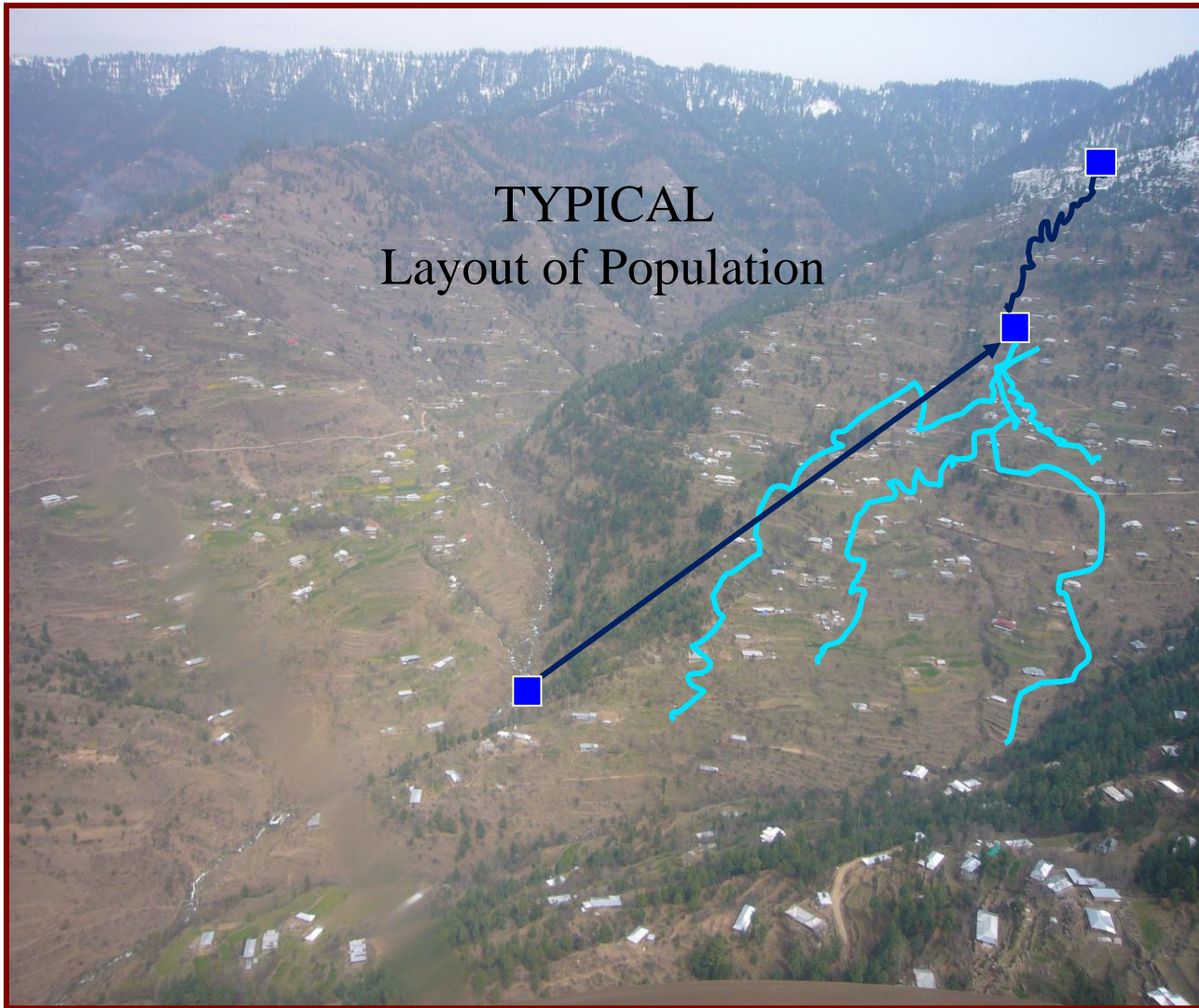
Glimpses of EQ 2005



3.5 million population affected

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TYPICAL
Layout of Population



In the absence of a formal water supply system, WOMEN have to travel miles downhill to fetch water spending hours on daily basis

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Under the over arching principal of “BUILD BACK BETTER”

In 2008, ERRA-WatSan sector proposed promotion of Rain Water Harvesting as one of the best alternative & supplementary (Long term) solution of water shortage in EQAAs

POTENTIAL FACTORS

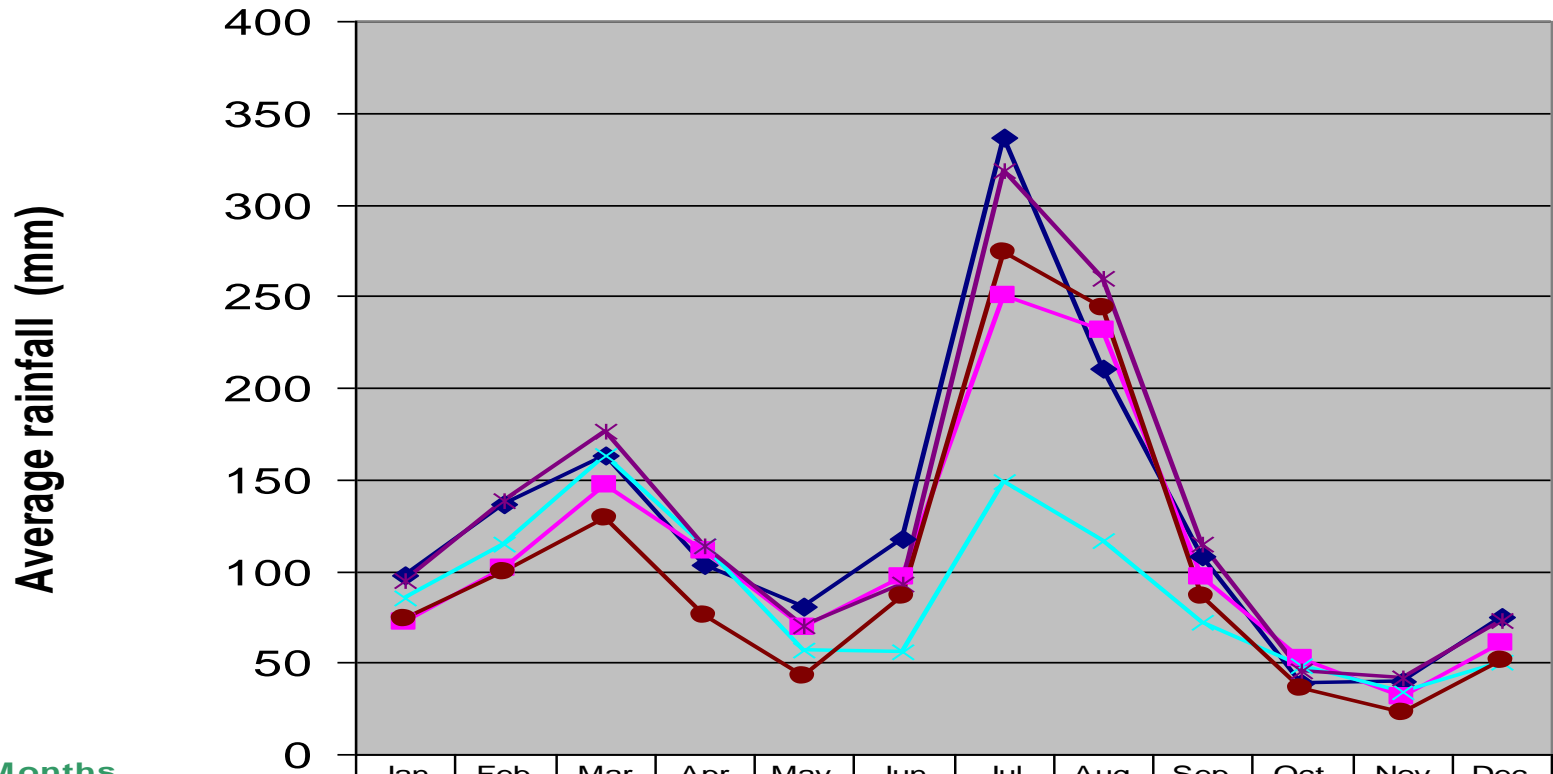
EQAAs have the best annual average rain fall of >1500 mm in the country, which is the primary source of water

After EQ almost 95% Buildings are having CGI Roofing which is the most efficient catchments surface



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Ave. monthly Rain-fall Pattern in Earthquake Affected Areas Pakistan



Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
◆ MZD (Neelum, Bagh, Rawalkot)	97.81	136.5	163.5	103.6	80.16	117.1	336.7	210.6	108.4	38.57	39.57	74.82
■ Kakul (ABT, Mansehra)	71.6	101.2	146.5	111.3	69.21	96.75	250.7	231.5	96.94	51.87	30.96	60.71
✕ Saidu Sharif (Shangla, Kohistan)	85.04	114.5	162.8	113.8	56.86	55.49	148.7	116.2	72.08	48.65	33.95	50.53
✱ Balakot (Battagram)	94.88	138.3	176.3	114.2	70.61	93.22	318.6	259.6	114.9	45.54	41.35	73.45
● Kotli (Sudhnuti)	73.81	99.6	128.5	76.1	42.59	86.22	273.9	243.8	86.67	36.07	22.59	51

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Trainings, Seminars, Workshops, development of technical guidelines on RWH and collaboration with Universities for further R&D was part of the Project



A pilot project (\$ 6.2 million) was implemented by ERRA. The 1st ever formal Public Sector initiative on Rooftop RWH in Pakistan. More than 40,000 RWH Systems on private houses & 1300 + public Institutions provided with Roof Top RWH Systems

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RWH mass awareness walk & Inter-School Debates Dec 2013 – Murree



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Training of Trainers under RWH program of ERRA

2000 Plus Artesian Trained

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Inauguration of Roof-Top RWH System at University of Poonch by Minister for Social Welfare & Women Development, Ms Farzana

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ERRA's RWH System Installed on Public Sector Buildings

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Issue:
Water

Solution:
Rain
Water



ERRA's RWH System in village Lothran– U/C Nagri Bala Abbottabad

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School Water Supply through Rain Water Harvesting in AJK

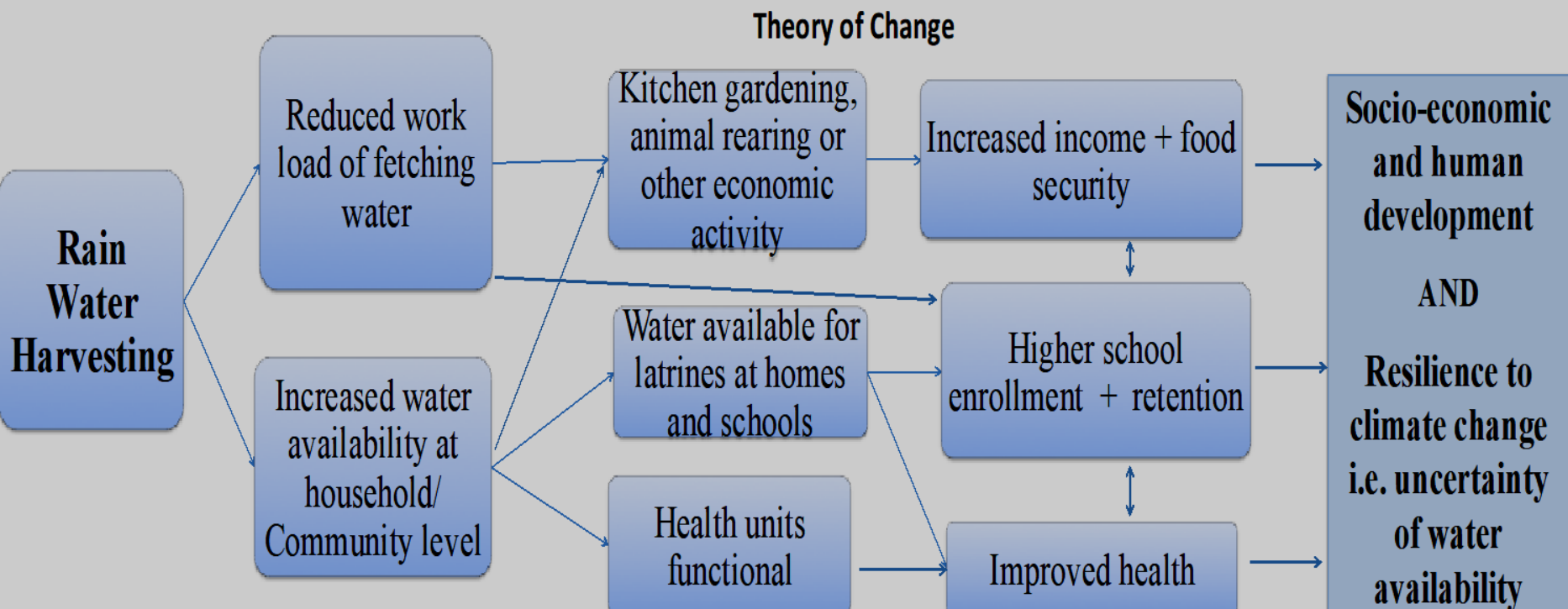


RWH on IsDB Girls Primary School Naato – Hattian Bala AJK

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Third Party Evaluation by

International Institute of Environment & Development (IIED) –UK , in collaboration with
Institute for Social and Environmental Transition (ISET-PK)



- 986 -hours of women saved / Annum
- 27% -Kitchen Gardening Improved
- 53% - Open defecation reduced

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2. Research Study by MPhil Students of PIDE

“Impact of Rooftop Rain Water Harvesting Technology on Women Well - being in Hilly and Fragile Areas: Evidence from Pakistan”

BY: (Ajaz Ahmed, Usman Mustafa, and Muhammad Nasir),

<http://www.pide.org.pk/pdf/Working%20Paper/CEECC%20Working%20Paper-1.pdf>

Recommendations:

“Policy makers should consider this approach of water supply in rural areas as it provides water of acceptable quality at consumption point”

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OUTCOME OF CONTINOUS ADVOCACY

Feb-23, Directives of PM, GoAJK

April-11,2023

1. Prime minister of Azad Jamun Kashmir issued directives to launch RWH Program in the State.

Capital Development Authority Islamabad Approves RWH Policy;

2. A Comprehensive Awareness Campaign be launched and after 03-years, each house owner has to be penalized, if wasting Rainwater

Mandating the installation of a rainwater harvesting tank and a small well for recharging groundwater in each house.

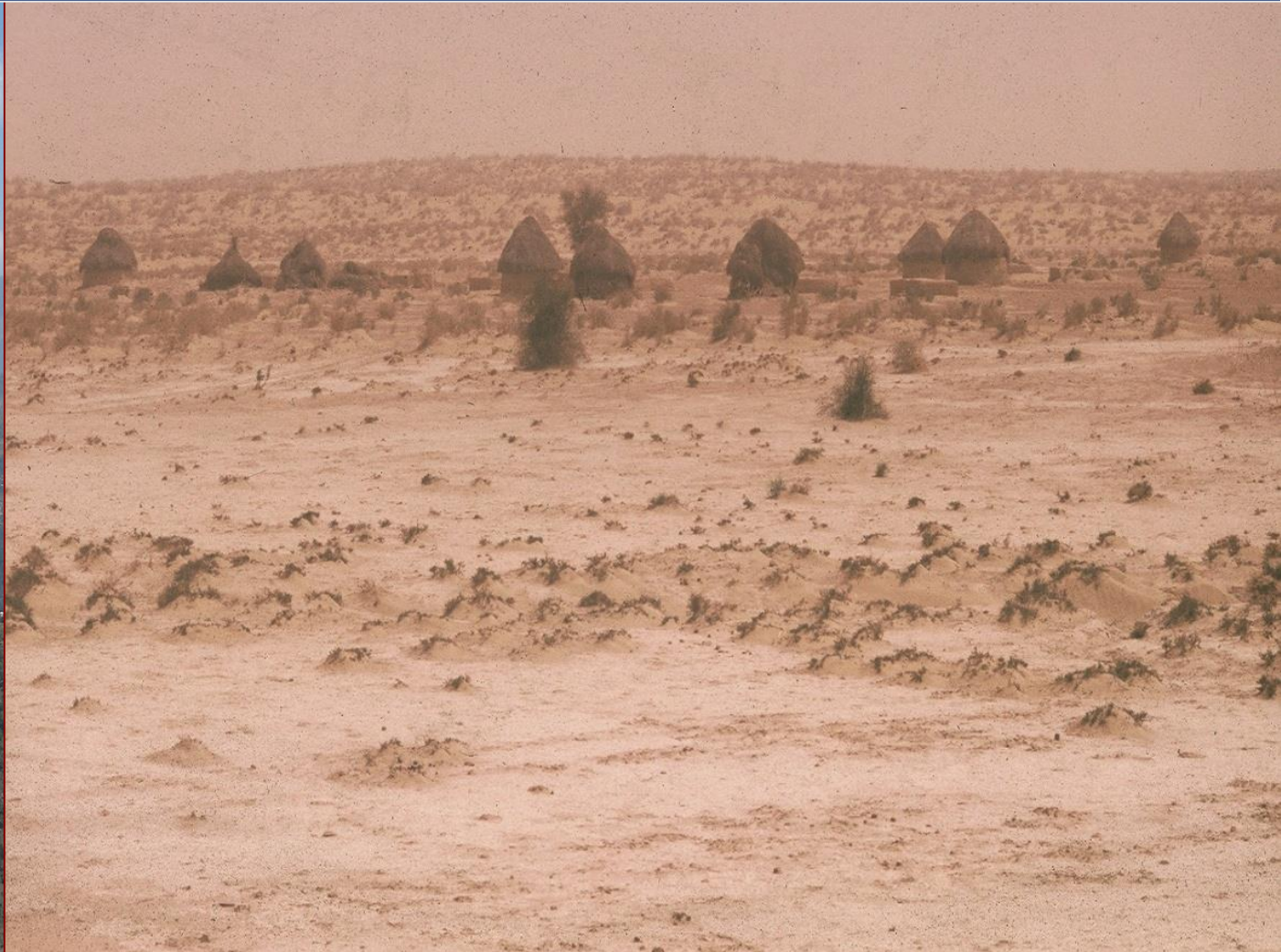
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❖ Recommendations:

- RWH is equally beneficial, addressing water issues during droughts or managing the flood conditions or any disaster
- Senior Management & Policy makers need to be advocated about RWH potentials & benefits in SARNET, GWP & WFW countries
- SARNET Forum can be utilized for extending Technical Support in the Region for Promotion of RWH
- Engaging local communities can be helpful in scaling up the initiative, not only to address the water issues but to promote enterpenureship as well.
- Annual Seminars / Workshops may be held in SARNET Countries for experience sharing and promotion of RWH
- Architects and Planners have to incorporate RWH Systems in Buildings and Landscaping designs

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Providing piped water facilities to the scattered Population living on rugged Mountains or Deserts - A big Challenge



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FREE

Rain delivery service to your home

Conserve it for



- **Drinking**
- **Washing / Bathing**
- **Sanitation**
- **Kitchen Gardening**
- **Small scale Agriculture**
- **Live Stock**
- **Groundwater Recharging**

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Thank You

*For relevant quarries and information-sharing, one may contact
through;*

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Please visit YouTube Chanel

www.Gain-from-Rain