

# Nature-based Solutions (NbS) and Bangladesh

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**EcoShape Webinar: Bangladesh Leader in Nature-based  
Solutions | 23 Sep 2021**





Climate change  
mitigation and  
adaptation



Disaster risk  
reduction



Economic  
and social  
development



Human health



Food security



Water security




Environmental  
degradation and  
biodiversity loss

## Nature-based Solutions (NbS)

Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits


IUCN (2020)




Climate change mitigation and adaptation




Disaster risk reduction



Economic and social development




Human health



Food security



Water security



Environmental degradation and biodiversity loss

Protection

Forests

Management

FW Wetlands

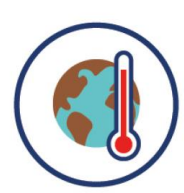
Restoration

Coasts

Creation

Hill





Climate change mitigation and adaptation



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Environmental degradation and biodiversity loss



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Mangrove protection –  
*carbon sequestration; cyclonic risk reduction; adapt to long-term changes in climate; conservation*

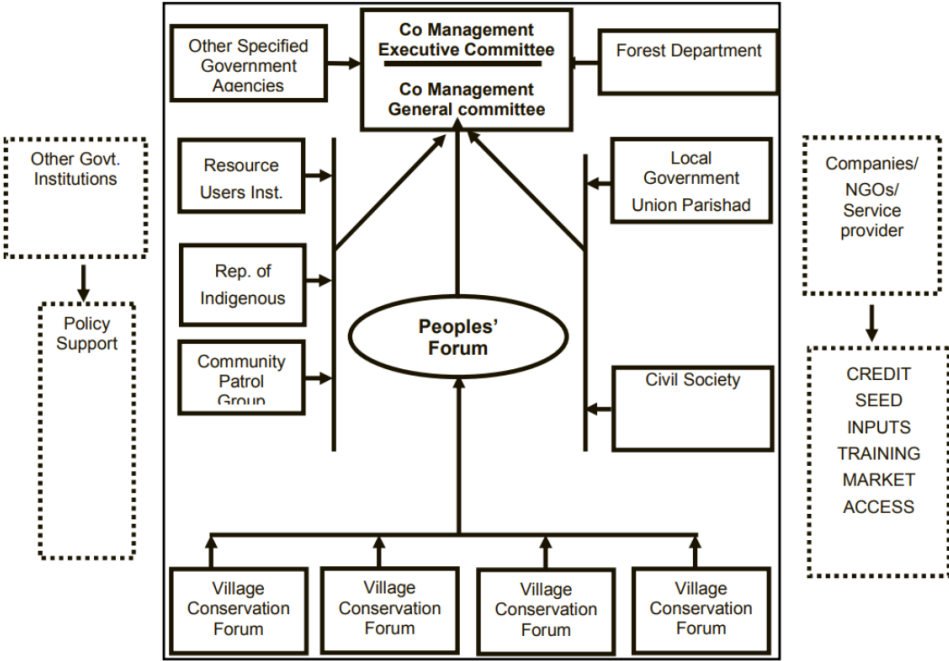


# Protected Area Co-management (NbS) in Bangladesh (2003–2018)



Nishorgo | IPAC | CREL

CREL (2018)



Co-management structures

রেজিস্টার্ড নং ডি এ-১

**বাংলাদেশ** **গেজেট**

অতিরিক্ত সংখ্যা  
কর্তৃপক্ষ কর্তৃক প্রকাশিত

রবিবার, নভেম্বর ১২, ২০১৭

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার  
পরিবেশ ও বন মন্ত্রণালয়  
প্রজ্ঞাপন

তারিখ: ২৪ কার্তিক ১৪২৪ বঙ্গাব্দ/০৮ নভেম্বর ২০১৭ খ্রিস্টাব্দ

এস. আর. ও. নং ৩১৪-আইন/২০১৭।—বন্যপ্রাণী (সংরক্ষণ ও নিরাপত্তা) আইন, ২০১২ (২০১২ সনের ৩০নং আইন) এর ধারা ৫২ তে প্রদত্ত ক্ষমতাবলে সরকার নিম্নবর্ণ বিধিমালা প্রণয়ন করিল, যথা:—

১। শিরোনাম ও প্রবর্তন।—(১) এই বিধিমালা রক্ষিত এলাকা ব্যবস্থাপনা বিধিমালা, ২০১৭ নামে অভিহিত হইবে।

(২) বিধি ৩ এর বিধানাবলি সাপেক্ষে, এই বিধিমানার বিধানাবলি অবিলম্বে কার্যকর হইবে।

২। সংজ্ঞা।—(১) বিষয় বা প্রসঙ্গের পরিপন্থী কোনো কিছু না থাকিলে, এই বিধিমালায় —

(ক) “আইন” অর্থ বন্যপ্রাণী (সংরক্ষণ ও নিরাপত্তা) আইন, ২০১২ (২০১২ সনের ৩০নং আইন);

(খ) “উপকারভোগী” অর্থ রক্ষিত এলাকায় সহ-ব্যবস্থাপনা এবং সামাজিক বনায়নে অংশগ্রহণকারী কোন ব্যক্তি;

(গ) “কমিউনিটি টহল দল (Community Patrol Group)” অর্থ বিধি ১৯ এর অধীন গঠিত কমিউনিটি টহল দল;

(ঘ) “গ্রাম সংরক্ষণ ফোরাম (Village Conservation Forum)” অর্থ বিধি ১৮ এর অধীন গঠিত গ্রাম সংরক্ষণ ফোরাম;

(ঙ) “তহবিল” অর্থ বিধি ২৯ এর অধীন গঠিত তহবিল;

(চ) “পিপলস্ ফোরাম (Peoples’ Forum)” অর্থ বিধি ১৫ এর অধীন গঠিত পিপলস্ ফোরাম;

( ১৬৭৮৯ )  
মূল্য : টাকা ২০.০০

Protected Areas  
Management Rules, 2017

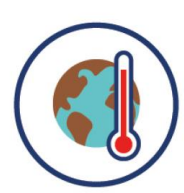




# Community-based Sustainable Management of Tanguar Haor (NbS) (2006–2018)







Climate change mitigation and adaptation



Disaster risk reduction



Economic and social development



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Coasts

Hill

Coastal afforestation –  
*carbon sequestration;  
cyclonic risk reduction;  
adapt to long-term changes  
in climate*



# Coastal Afforestation

By 2013, coastal plantation: [209,140 ha](#). Natural calamities brought down to [61,574 ha](#) in 2017. [Bangladesh Forest Inventory \(2020\)](#): coastal plantation 140,116.3 ha; volume 89.60 (m<sup>3</sup>/ha); above-ground biomass (AGB) 75.56 (t/ha); C in AGB 37.71 (t/ha).

**Community** Based **Adaptation** to Climate Change through Coastal Afforestation Project (**UNDP, LDCF**)

**Climate-Resilient** Ecosystems and **Livelihoods** (CREL)  
**Govt, USAID**

**Climate Resilient** **Participatory** Afforestation and Reforestation Project  
**Govt-BCCRF/WB**

Integrating **Community** Based **Adaptation** into Afforestation and Reforestation **UNDP, GEF/ LDCF**

Sustainable Forests And **Livelihoods** ([SUFAL](#))  
**Govt, World Bank**



© Iftekharul Alam Russell

1966 .....

2008

2013

2016

2018

2020

2023

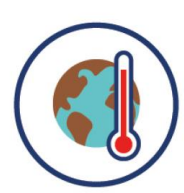




Freshwater swamp in *haors* –  
*protecting villages from wave erosion*







Climate change mitigation and adaptation



Disaster risk reduction



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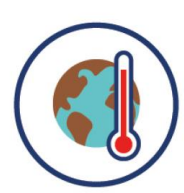
Coasts

Hill



Urban wetland restoration –  
*waterlogging control*





Climate change mitigation and adaptation



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Floating agriculture –  
*adaptation to waterlogging*





# Eco-DRR in Rohingya Refugee Camps



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IOM Bangladesh





Stream-bank protection



CNRS Cox's Bazar



Wetland creation



CNRS Cox's Bazar

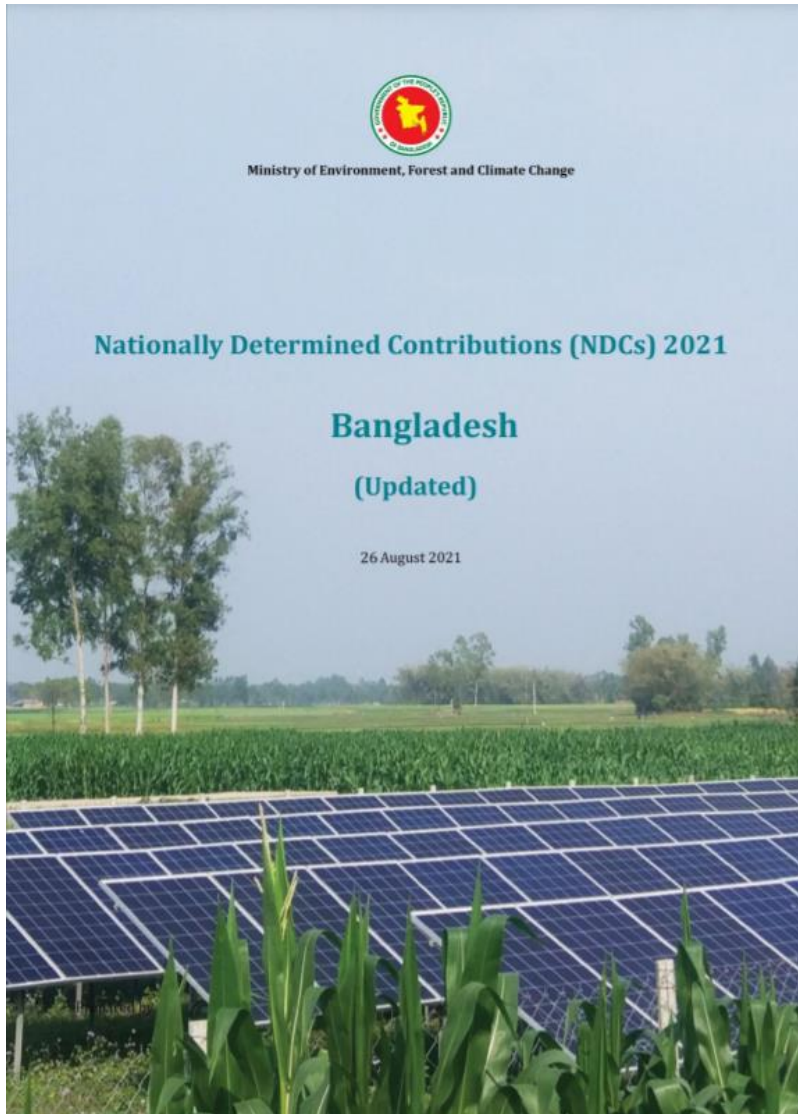


# Nationally Determined Contributions (NDCs) 2021

## Forestry

- Maintain forest cover & tree cover by collaborative forest management, social forestry, etc.
- Forest conservation by scaling up AIGAs for forest-dependent communities (55,000 HHs)
- Protected area co-management (72,000 ha)
- Additional coastal afforestation activities
- Maintain the restoration of degraded or deforested areas
- Plantation in roadsides, embankments, private lands etc.

[MoEFCC \(2021\)](#)





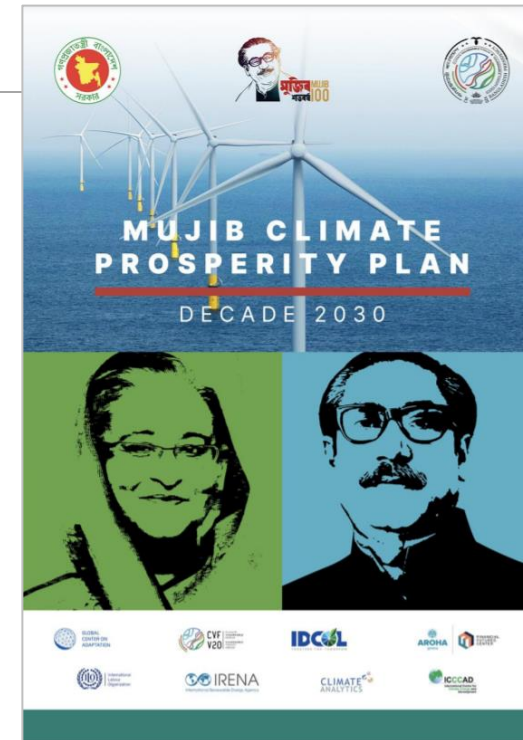
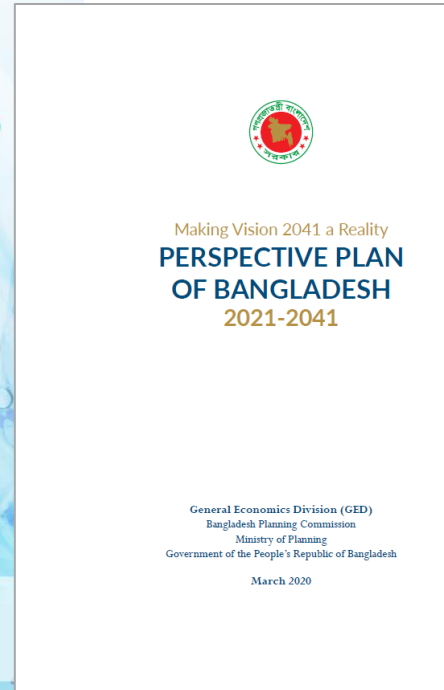
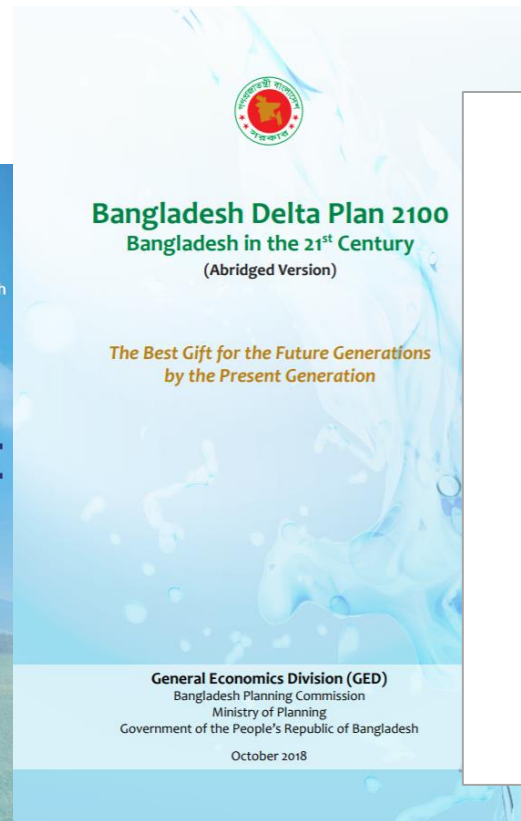
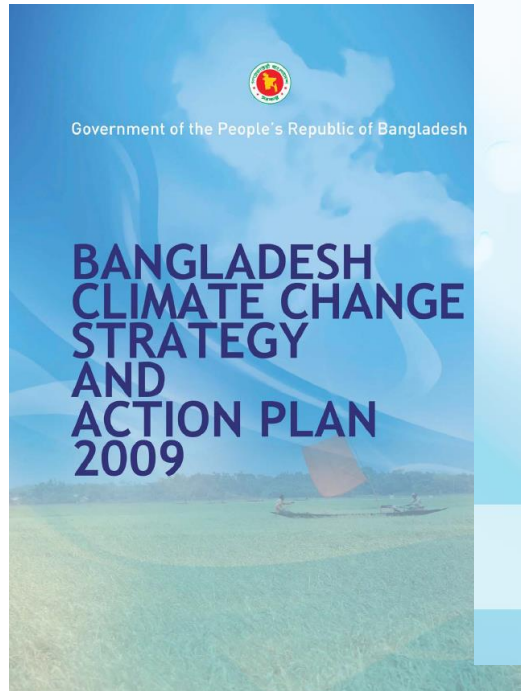
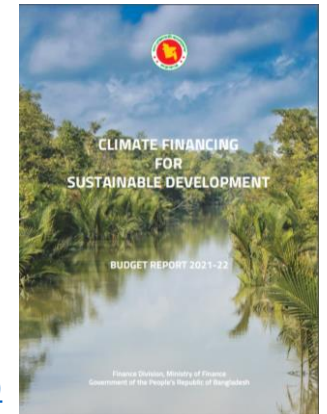
# Short-, Medium-, & Long-term Plans

... not only mentioning the word 'Ecosystem-based Approach' or 'NbS' in policies & plans, but also funding them ...

Climate relevant budget: **US\$ 3 billion**  
| 4.16% of budget | 0.73% of GDP (in  
2021-2022)

NbS allocation: ?

FINANCE DIVISION (2021)



# Challenges

## Improved understanding & recognition of NbS

- ▶ *Which are vs which are not NbS*
- ▶ *Acknowledging NbS's limitations*
- ▶ *Valuing a mix – 'Grey-Green-Blue Solutions'*

## Creating Bangladeshi NbS evidence

- ▶ *Effectiveness*
- ▶ *Cost-effectiveness*
- ▶ *Co-benefits*

## Need for mainstreaming NbS in

- ▶ Programme & project design
- ▶ Procurement rules
- ▶ M&E system

## Ensuring 'people' in NbS

- ▶ *Design*      ▶ *Implement*
- ▶ *Manage*     ▶ *Share benefits*

## Allocating & using money for NbS

- ▶ *Beyond project implementation*
- ▶ *Longer-term benefits need long-term adaptive management*



# Opportunities

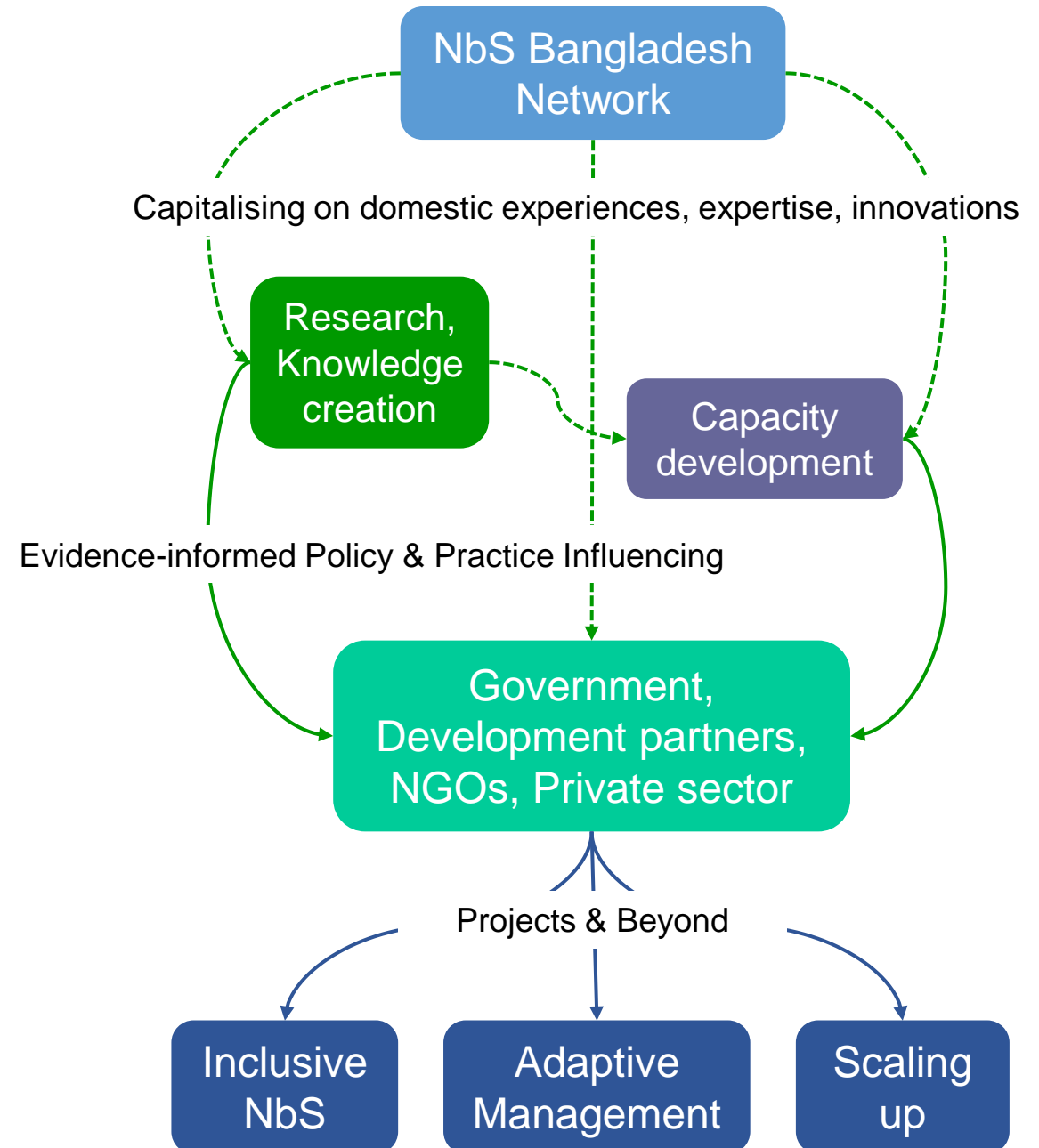
Climate  
vulnerability

NbS in plans

Vision for a Resilient,  
Prosperous Delta

Long experience of  
Community-based NRM  
Community-based Adaptation  
Ecosystem-based Adaptation

South Asia Regional Office of  
Global Commission on Adaptation  
(GCA) in Dhaka







## NATURE-BASED SOLUTIONS BANGLADESH

*"Communities within Bangladesh have been working with nature for many years to adapt to climatic impacts and there is a rich body of knowledge on how to implement Nature-based Solutions."*



[www.nbsbangladesh.info](http://www.nbsbangladesh.info)

 [@NbSBangladesh](https://twitter.com/NbSBangladesh)



### Join the network

Nature-based Solutions (NbS) have gained a lot of global and national attention recently. Nature-based Solutions (NbS) involve working with and enhancing nature to help address societal challenges while also providing biodiversity benefits. They encompass a wide range of actions, such as the protection, restoration and management of the natural environment and ecosystems, the incorporation of green and blue infrastructure in urban areas, and application of ecosystem-based principles. To enhance understanding of the importance of NbS and to scale-up their implementation in Bangladesh, [International Centre for Climate Change and Development \(ICCCAD\)](#) and the [Nature-based Solutions Initiative \(NBSI\)](#) at the University of Oxford have developed the NbS Bangladesh Portal. To take this initiative forward, it is imperative to bring together relevant stakeholders in Bangladesh – working on and/or interested in NbS – to join in the discussion and participate in the 'NbS Bangladesh Network'. 'NbS Bangladesh Network' is seeking to build a community of researchers, practitioners and policymakers working at the interface of climate change, nature conservation and sustainable development.



# Thank You

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