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UPSC MAINS ANSWER WRITING.

- Q. It is critical to position natural gas as a transition fuel for reduction in between - House - Gas emissions and enable the entry of hydrogen fuel in the country. Analyse.

Ans: - Natural gas is only the transition fuel that we can use to overcome the between-house-gas emissions. Some of the circumstances that are used to give clearest nature in the country and around the world is as follows:-

- (i) Natural gas currently has a 6.6% share in India's energy mix and is targeted to increase to 15% by 2030.
- (ii) Natural gas is the cleanest fossil fuel and has wide usage across power, industry and transport sectors, but only has 0.40% smaller emission-footprint than coal.
- (iii) Green hydrogen can displace natural gas wholly or partly in all sectors. So that it is critical to strictly position natural gas as a transition fuel for immediate GHG reductions and enable the entry of hydrogen in a decade.
- (iv) Three broad measures need to be prioritised:-
first, deploying technologies in industry

and transport that use natural gas now but
also hydrogen-ready ;
Second :- adapting natural gas infrastructure
to hydrogen ;

Third :- utilizing natural gas for
producing hydrogen to kickstart the
green hydrogen ecosystem.

(v) we need to invest in technologies that
can readily transition to hydrogen.

(vi) Coal based technologies have limited
potential to blend hydrogen in the
existing process.

(vii) Current commercial steel-making
technology can switch between natural-
gas and hydrogen to produce steel, it
is essential to deploy this technology for
all new capacity additions.

(viii) This technologies can reduce carbon-
intensity and it becomes cost-competitive
with natural gas.

Now we can say if planned well, natural
gas can play the role of a bridge fuel and
not act as a barrier to the entry of
green hydrogen.