

20 September 2012

To,
**Engineer-in-Chief (Irrigation),
Irrigation and CAD Department,
Government of Andhra Pradesh**

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cc: prlsecy_proj_irr@ap.gov.in

Subject: Comments on Guidelines for taking up Mini Hydel Schemes on Irrigation Canals, Head Regulators, Streams and Vagus, as displayed on the Andhra Pradesh Irrigation and CAD Department Website on 17 September 2012.

Dear Sir,

This is with reference to the 'Guidelines for taking up Mini Hydel Schemes on Irrigation Canals, Head Regulators, Streams and Vagus', as displayed on the Andhra Pradesh Irrigation and CAD Department Website as on 17 September 2012.¹

We have been analyzing regulation and functioning of mini hydel projects (MHPs) across India and has been working with farmers, fishermen and local groups affected by MHPs. With this reference, we would like to submit our comments on the above stated guidelines issued by your department.

Unfortunately, we are sending the comments after the deadline of 8th August, but we hope that you will see the pertinent issues raised here, and implement the suggestions. Most of the suggestions are applicable to MHPs on rivers or streams.

Mini Hydel projects can be a source of sustainable green energy, if they are backed by proper regulation, people's participation, attention to environmental impacts and benefit sharing with local communities. As we have seen, without these pre requisites, MHPs can create a gamut of problems for the communities, environment as well as the government. Karnataka Power Minister had herself said that "The private companies channel the water sources from our projects. Water pressure reduces, and power generation at the government facility suffers. What is more, the private players also sell power at a much higher rate than the government,"²

It is a welcome step that Andhra Pradesh Irrigation and CAD Department is coming up with Guidelines for Mini hydel Projects before sanctioning projects. Some suggestions are as follows:

a. **Social Impact Assessment:** Several MHPs in states like Karnataka and Himachal Pradesh have severely affected lives of communities by affecting drinking water supply, irrigation water,

¹ http://irrigation.ap.gov.in/Mini_Hydel-approved_Minutes-28.06.2012.doc

² http://www.dnaindia.com/bangalore/report_karnataka-govt-will-buy-out-mini-hydel-plants_1561066

flooding during monsoons, major safety concerns, affected fisheries, blockage of access roads and bridges by construction activities, workers colonies, submergence etc.

In case of many projects affected people are strongly resisting MHPs due to adverse impacts and many projects had to be cancelled. We therefore urge the AP government to conduct participatory social impact assessment of SHPs prior to sanctioning, with a publicized Public Hearing where details about submergence, technical details about the project, resettlement and rehabilitation, if any, benefits that the community will gain through the projects, etc., are openly shared in language and manner people can understand, at least a month before the public hearing with the community by the project developer. The Public hearing needs to be conducted by independent panel, in presence of government department like Irrigation Department.



Above: Agitation against 4.5 MW Hul Hydroelectric Project in Himachal Pradesh

b. **No Objection Certificate from all the affected the Gram Sabha should be mandatory, including** where the project will be built (both banks) as well as from Gram Sabhas which will be affected by the project before sanctioning the project. In the absence of this, local affected communities have absolutely no part in decision making affecting their livelihood and resource. This is a sure invitation to local protests. Gram Sabha NOC should in fact be the cornerstone of sustainable MHP development.

Looking at MHPs on canal systems, NOC should also be taken from WUAs which will be affected by the MHPs.

There should be a separate Appellate Authority to deal with issues arising out of water allocation to MHPs.

c. **Environment Impact Assessment:** Across the country major issues are arising from MHPs due to the absence of EIA. By MNRE definition, hydel plants smaller than 25 MW are Small Hydro Projects and are exempt from EIA as under the EIA Notification 2006. However, impacts of such plants on the environment are many times, massive, particularly for the local communities. This has

led to Karnataka High Court ordering a stay on all SHP development in Western Ghats since 2011. Keeping these issues in mind and learning lessons from these past experiences, Andhra Pradesh Government should make EIA mandatory for all projects above 1 MW installed capacity, prior to sanctioning. This participatory EIA should involve comprehensive assessment of all the impacts of the MHPs on river, river flows, biodiversity including fisheries, forest, land use, wildlife, community uses of rivers, mining and blasting for the project, desilting of reservoirs, etc.



Above: Protests against 12.5 MW Sahasralingeshwar Project in Dakshin Kannada

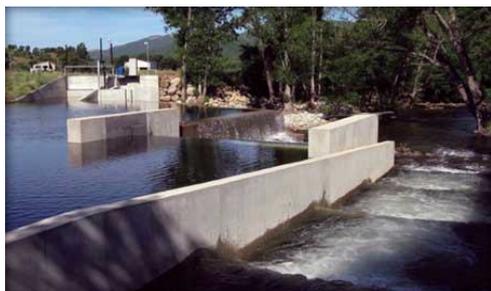
d. **Safety Measures:** In case of many MHPs in Himachal Pradesh and Karnataka, MHPs have posed serious risk to downstream communities, because of sudden, unwarned release of water for generating electricity during peaking hours. Many MHPs have been taken to court and have had to face closure due to huge local protests following death of people in the downstream. (For example, 24.75 MW Perla MHP in Bantwal, Karnataka)

With this background, we urge the AP government to work on a detailed disaster management plan for each MHP wherein the MHP follows certain norms of water release, especially during floods, has a comprehensive warning system and compensates downstream communities for loss of lives and livelihoods due to sudden water releases/ holding back of water.

e. **Environment Flows downstream:** Clear norms should be laid down about environmental flow releases from the project in the downstream river stretch. Mini Hydel projects across the country have not been following this norm, causing destruction of downstream fisheries, groundwater levels, boating, riparian farming, etc. Clear guidelines as per the current MoEF norm of 20% average lean season flow and 30% average monsoon flow with two flushing flows each monsoon should be prescribed and monitored by empowered committee with 50% local participation.

f. **Fish Ladder/Passes:** These flow releases have to be made through a fish pass or a fish ladder and not through turbines. Weirs of MHPs are lower and hence, providing fish passes and ladders is easily possible and should be done on priority. Rivers like Godavari, Pennar, Krishna, Palar, Vamsadhara and other rivers, their tributaries and smaller streams support large number of livelihoods through fisheries. Water level fluctuations are the biggest factor affecting fisheries and the issue has to be looked at seriously while encouraging Mini Hydel Projects.

g. **Cumulative Impact Assessment:** All social, environmental and safety issues stated above are compounded many times over when small hydel projects are present in a cascade on a single river or stream. This has led to Uttarakhand High Court cancelling allotment of 150 MHPs. Foreseeing future issues, the Guidelines should include Cumulative Impact Assessment studies if more than 3 MHPs are proposed on a single River or stream. Similarly, distance of free flowing river between two MHPs should be minimum 5 kms.



Above: Water release through a fish Ladder for a 700 KW project in France

h. **CDM Benefits:** Project developers have been applying for CDM benefits under the UNFCCC. The credits run to millions of rupees annually and are meant of sustainable development and encouraging clean, community friendly energy initiatives. True to this spirit, at least 75% of the CDM benefits generated by the projects should be dedicated to local area development and handed over to local communities. These should not be looked at as pocketable profits by the project proponent.

i. **MHP should be open for public monitoring** and entrance to inspect powerhouse, power canals and the entire project should not be prohibited to local communities and general public.

j. **Benefit Sharing:** While the clause of APTRANSCO getting 12% minimum free power from projects is welcome, we urge that this power should be used at the villages affected by the MHP. Minimum power given to affected villages should be 100 units per family per month for at least 10 years from the date of commissioning, in addition to providing revenues from sale of at least 1% of electricity and 1.5% of capital cost for Local Area Development, to be managed by the gram sabhas and not by govt officials. Without a clause like this, grid connected power from MHPs do not lead to any significant change in the power scenario of the affected villages.

k. **Encouraging community managed MHPs:** In order to encourage communities, small scale MHPs, local entrepreneurship, each developer should not be assigned more than 3 projects on a river/ canal, (as in Himachal Pradesh) and applications from local communities should be prioritized and encouraged. The govt should prioritise development of sub MW capacity hydro projects. To ensure that these projects get CDM benefits, the govt should facilitate CDM application from a bundle of projects.

I. It is very good to note that “control of gate operation at the Mini Hydel Stations shall be vested with Irrigation Department only. No heading up of water during lean flows shall be allowed.” **Community participation in monitoring** should be included and it should not be limited only to Irrigation Department.

Inability to address the issues raised above has been leading to major social and environmental impacts, local protests, court proceedings, stays, cancelling or delay in planned projects. We look forward to inclusion of these recommendations in the upcoming Policy on Mini Hydel Projects in Andhra Pradesh. We would be happy to elaborate on any points mentioned above.

We will look forward to hearing your response.

Thanking You,

Yours Sincerely,

Endorsed by:

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